



*Agripol*

# Module for Face-to-Face Event



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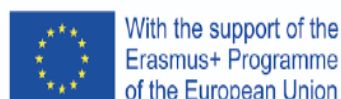
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# 1. Consumerism

## Structure

1. Task 1: Stream of Consciousness on “Consumerism”
2. Task 2: Text Reading and “Lightning Talk”
3. Task 3: Reflection Task: Small Thinking Circle
4. Task 4: Text Reading and “Lightning Talk”
5. NGOs and Networks for more information
6. Additionally (time and need) Poster Checklist: The Future of our Consume in Everyday School Life
7. References

### 1.1 Task 1: Stream of Consciousness on “Consumerism”



*Working individually*

Take a piece of paper and a pen (in digital formats you can take notes on your PC, laptop, tablet or mobile phone!) and write down everything that comes to your mind about the term "consumerism" in 3 minutes: do not put the pen down, but write down your thoughts the whole time.

Important: it is not about correct answers or knowledge, what is of interest are your ideas, thoughts and suggestions!

The teacher stops the time during these 3 minutes.

*In plenary*

Together with the teacher, the class discusses the results of the Stream of consciousness, with the students explaining their statements in each case.

### 1.2 Task 2: Text reading + “lightning talk”



*Working individually*

Work individually to read the text below. Make notes on it.

Now prepare a short presentation: Your task is to explain the contents you have read on the topic of "consumerism" in max. 3 minutes. For this purpose, create a PP slide that also contains a discussion question on the topic of "consumerism". Now present your findings to your classmates and teacher!

### **Material: Text**

*What does Consumerism mean?*

In general, consuming defines the utilization of (economic) goods in great quantity. Hence, consumerism describes the phenomenon of excessive consumption of products, goods, and services. It refers to the consumer ideology of Western society, in which consumers are encouraged to spend (Hayes 2021). Therefore, it stimulates the production and fuels the economic growth.

Consumerism as a standard of living relies on the assumption: the more we consume, the better off we are. According to the concept, consuming goods and services in large quantities will improve a person's wellbeing and happiness (Hayes 2021).

All in all, consumerism encourages the acquisition of goods and services in ever-increasing amounts. Nevertheless, it is often criticized for its social, environmental and psychological consequences (Hayes 2021).



Figure 1: Consumerist-Lifestyle;  
available online at:  
<https://tobykurien.com>

### *Characteristics of consumption*

Consumption is a natural part of being human. Accordingly, there are different functions of consumption (Endlich Wachstum 2016):

- (1) People consume to satisfy their basic needs, including the need for food and shelter.
- (2) Consumption makes things easier and more convenient. Therefore people consume goods or services for their well-being, happiness or pleasure.



- (3) Social and sexual competition, attention and affection can be satisfied by consuming certain good. Thus, people fulfill their need to be desired by consuming.
- (4) Goods and services (e.g. clothing, music and food) play a role in the process of identity formation and belonging. Products are of symbolic importance and a way of communication by showing which ideals are adhered. By consuming certain goods people identify with certain social groups and differentiate from other groups.
- (5) Consumption has a social importance. It is functional for demarcating one's position in society or to position oneself in relation to other.
- (6) By not questioning and reflecting purchases consumption can become a habit. One may become accustomed to a certain level of material possessions. This may lead to cultural dependence.

Basic needs can usually be satisfied with a very low level of consumption. Assadourian (2010: 187) notes that "the level of consumption is almost completely driven by cultural norms". But meeting only the basic need for some consumers does not seem to satisfy them. "[I]n today's world, it is consumption that takes over the functions of the basic instrument for creating and expressing human personality" (Krajewski 1997 cited by Blonski/Witek 2019: 9). Consequently, consuming is quick to exploit and overextend in to fulfill these functions regarding identity and social importance.

The criticism of unrestrained consumption has grown. For example, minimalism, also referred to anti-consumerism, an ideology-movement, decries the excessive purchasing and consumption of material possessions. The concept is characterized by attributes such as simplicity, clarity, and singleness. As Blonski and Witek (2019:8) put it: "Minimalism means deliberately limiting consumption to the rational sizes that result from the natural, individual, physical and mental characteristics of consumers, while emphasising responsible decision-making in this area." Similar trends such as de-consumption and freeganism refer to limiting the current excessive consumption for various reasons, e.g. greater awareness of responsibility (Blonski/Witek 2019: 11).

### 1.3 Task 3: Reflection task: Small Thinking Circle



#### *Group work*

Discuss the following questions in the group. In parallel, take notes on colored pieces of paper and visualize them on a flipchart!

Please consider:

- How can sustainability and consume be linked?
- How does consume shape individuals?
- Think about it: how would you describe your own consume behavior?
  - What would you problematize about it?
  - What do you find good about it?
- And finally: what possible actions can you think of for more sustainable consumption and what could you specifically apply here and how?

**Present the results of the group work** to your class and the teacher via the colorful flipchart!



### 1.4 Task 4: Text reading + “lightning talk”

#### *Working individually*

Work individually to read the text below. Make notes on it.

Clarify open questions or suggestions in the plenum within the framework of a joint results-oriented thinking out loud and exchange!

#### **Material: Text**

##### *Contextualization of sustainability and consume*

The current consumption patterns are unsustainable and need to be altered if human's society is to remain stable. Because of, the connection of consumerism with growth imperative and overconsumption has effects on the environment, e.g. overexploitation of natural resources, waste from disposable goods and global warming.

To minimize the adverse effects from consumption and investment people rely on sustainable consumption or so called eco-consumption, which contributes to the reduction of environmental problems or prevents their further intensification (Masson/Leßmann 2016: 1). Some consumers may refer to the concept of conscious consumption by making choices on the basis of knowledge of the social, ecological and political consequences. Even every person is a consumer of various types of goods and services, social factors (e.g. age, gender, income and education) play a role in one's ability to consume and live sustainably. Acts of consumption are subject to limitations that arise from the unequal distribution of material resources (Masson/Leßmann 2016: 1). Accordingly, there is a connection between consumer's socio-economic and demographic characteristics and responsible consumption behavior. For example, the education level in means of knowledge and awareness of environmental issues have been highlighted as having an important influence on pro-environmental behavior (Tam/Chan 2018). Moreover, many studies using the theory of planned behavior indicate that attitudes, subjective norms and behavioral control can influence consumers' purchasing intention (Yadav/Pathak 2017).

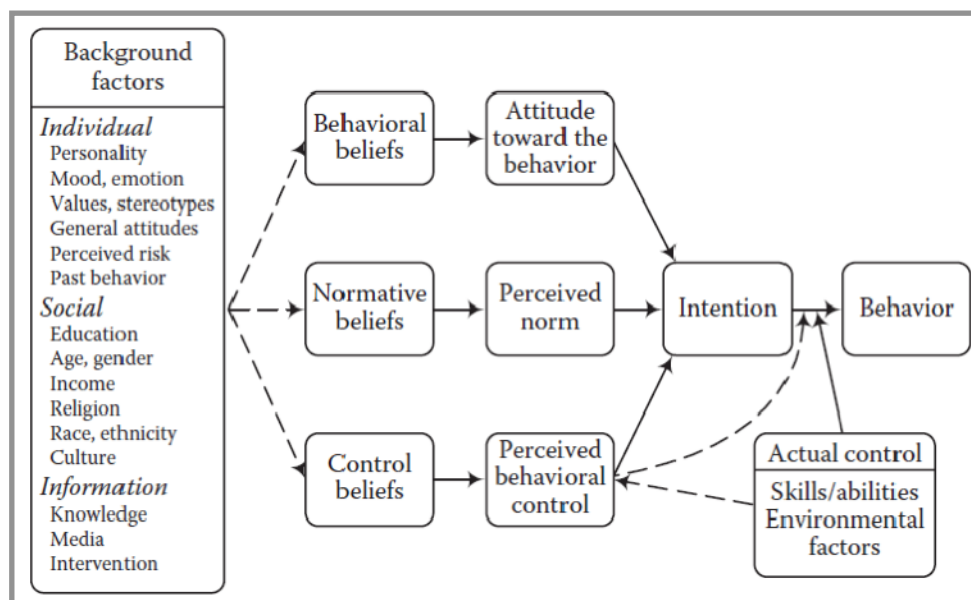


Figure 2: Theory of planned behavior; available online at <https://www.europarl.europa.eu>

### *Different effects of consumption on individuals*

Besides overconsumption and environmental degradation, consumerism has various effects on individuals, including negative psychological ones (Hayes 2021). First of all, the incentives for consumers may lead to unsustainable debt levels that contribute to financial crises and recessions (Hayes 2021).

Secondly, regarding to the concept of conspicuous consumption (Veblen 1899), consumers purchase, own and use products to signal or demonstrate their social and economic status. This tendency to identify with products perceived status-symbolism (e.g. designer clothing, jewelry) may lead to sacrificing significant time and income to purchase. Consequences can be an excess of waste and deterioration in relations with social environment (Blonski/Witek 2019: 8). Furthermore, consumerism may lead to increasing status anxiety, stress associated with social status and the need to keep up by increasing consumption. People may feel a constant dissatisfaction, fatigue, nervous tension, haste, and a constant lack of something (Blonski /Witek 2019: 8). Psychological research has shown that people living for consumerist goals report poorer moods and greater unhappiness in relationships. People exposed to consumerist values such as wealth, status and material possessions display greater anxiety and depression (APS 2012).

### *Connection with current economic system and problematization*

Living in a capitalist economy is characterized by a lifestyle of excessive materialism. The traditional linear economic bases on a take-make-consume-throw-away pattern and relies on large quantities of cheap, easily accessible materials and energy. Political policy is to increase consumption to build and maintain a strong economy (Hayes 2021). This mass consumption has led to overconsumption, a “consumption, that is excessive and not justified on the basis of biological or socio-cultural reasons” (Blonski/Witek 2019: 10). Disadvantages or consequences are environmental problems, such as pollution by producing industries, resource depletion due to widespread conspicuous consumption, problems with waste disposal.

Because of this growing pace of environmental degradation and climate change it is urgent that people transform their consumption behavior to become more sustainable, to ensure safe healthy living conditions for current and future generations. Therefore, consumption culture needs to change to enable the transition to a circular economy (Saari et al. 2021: 1). By involving sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible the life cycle of products is extended. Thus, this model implies reducing waste to a minimum and pressure on the environment by improving the security of the supply of raw materials.

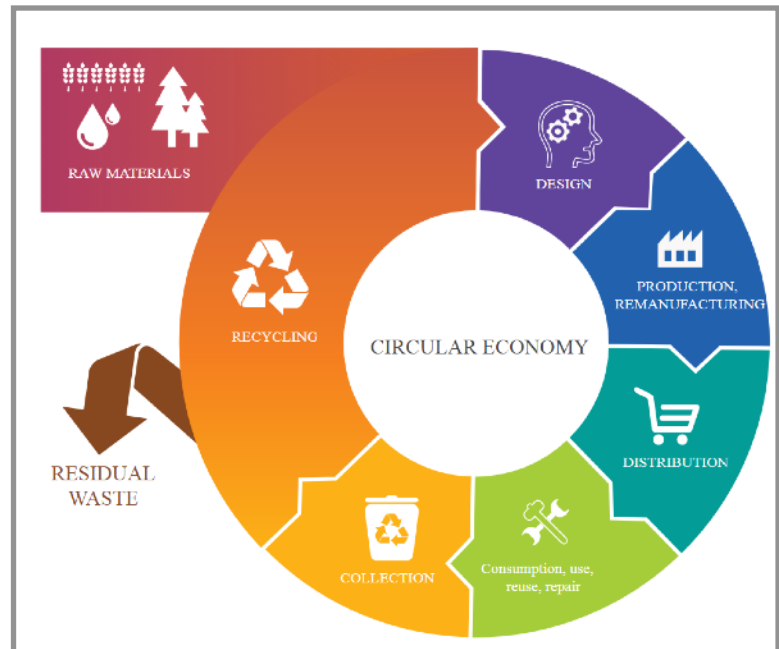


Figure 3: Model of circular economy, available online at <https://www.linkedin.com>

## 1.5 NGOs and Networks for more information

**Consumers International:** a membership organization for consumer groups around the world to empower and champion the rights of consumers to have access to safe and sustainable products and services: [www.consumersinternational.org/](http://www.consumersinternational.org/)

**Greenpeace:** a transnational environmental organization, whose work focuses on nature and climate protection and uses non-violent creative action to promote for a greener world: [www.greenpeace.org/](http://www.greenpeace.org/)

**The Natural Resources Defense Council (NRDC):** a nonprofit organization dedicated to protecting the world's resources and ensuring a safe and healthy environment for all: [www.nrdc.org](http://www.nrdc.org)

**World Resources Institute:** a research organization working with governments, businesses, institutions and civil society groups to turn information into action, with a focus on issues like climate change, energy and food: [www.wri.org](http://www.wri.org)

## 1.6 Additional Exercise: Poster Checklist: The Future of our Consume in Everyday School Life

### *Working individually*

How can more sustainable consume patterns be integrated into our everyday school life (e.g. a more sustainable, regional, seasonal and reduced assortment in the cafeteria)? What are the challenges that need to be reflected upon and what am I personally prepared to sign up for?

### *In plenary*

Share your notes and suggestions with your classmates and the teacher and discuss them together!

Now create a common list with concrete proposals for action for the school: the teacher writes down all ideas in parallel on a poster.

The poster is visually designed in such a way that it can be hung up in the classroom as an everyday checklist for all class members so that the ideas can be gradually introduced into the democratic everyday life of the school.

## 1.7 References

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## 2. What does really motivate us for action?

### Structure

1. Theoretical Part - 10 min.
2. Exercise "Pyramid of Values" - 15 min.
3. Strategies for Action - 3-4 min.
4. Exercise "Design the Sustainable Green Future" - 30 min.
5. Reflection Task - 1 min.
6. NGOs/Networks that can Help You Learn More
7. References

### 2.1 Theoretical approach: Why do we behave in a certain way (with regards to society, education, values)?

Motivation is an internal state that supports, directs and stimulates human behavior and occupies a leading place in the structure of personality. It includes targeted behavior and requires a direct and timely link between targeted action and results achieved.

The term "behavioral motivation" is used in both broad and narrow senses. In its narrow sense, it is perceived as the motivation for specific forms of human behavior. In a broad sense, the motivation of behavior means the totality of these psychological moments that determine the overall behavior of a person. The grounds for committing a behavioral act are referred to as the motive for the behavior. It is an internal urge to act, placed in connection with some need that guides the behavior. The motive implies the specific personal attitude to certain objects or subjective states. In the dynamics of behavior, the driving force may have more than one motive, as a result of which their gradation occurs, referred to as "struggle of motives". If there are opposing motives for performing an action, it is called a "conflict of motives" (Nedelchev, N. 2010, 2011).

Research on the nature of the motivation of human behavior began in the nineteenth century. As the beginning of the modern psychological understanding



of motivation are accepted the views of S.L. Rubinstein (1935), according to whom, sources of motivation of the volitional act can be inclinations, needs, emotions, as well as interests, ideology, awareness of tasks that social life puts in front of people.

Motivation is defined as a stimulus, an incentive to create and maintain intentions and purposeful actions. Its importance is that it determines the degree of active involvement and attitude to each activity. Motivation is the desire to achieve the goal, united with energy to work for it. It has 4 aspects: (1). Goal (2). Effort (3). Desire to reach the goal. (4). Favorable attitude to the targeted activity.

There are several popular views related to the nature of motivation. Deci and Ryan's **theory of self-determination**, for example, is based on the relationship between external and internal motives and the basic human need for autonomy. A person is able, through personal choice, to begin and regulate the efforts he/she expends to complete a task that perceives as personally beneficial. (Ryan, R. M., & Deci, E. L. 2000)

**Internal motivation:** performing the task for one's own benefit, regardless of any external reward. Internal motives are related to the identity of the individual, interest in the subject and a sense of well-being. A person is internally active when the activity is an end in itself and when there is a choice. He finds the internally motivating tasks interesting and provocative; as a reward is the pleasure directly from the activity or the sense of competence in the performance of the task.

External motivation: the pursuit of some reward, external to the task. People are externally active when the goal of the activity is the reward, which is not organically and directly related to the activity, but for example with the acquisition of pragmatic or material value.

According to **Herzberg's two-factor theory** (Alshmemri, M. et al. 2017), motivation is influenced by two types of factors:

- **Motivational** - internal factors related to the personality. Such are the desire for growth, development, status in society, successes, career growth, recognition and approval, opportunities for creativity.

- **Hygienic** - external factors related to the work environment. Such are the salary, the working conditions, the interpersonal relations, the administrative policy, the degree of control, etc. Their absence or deterioration is the source of dissatisfaction.

Another well-known theory is **Vroom's so-called "Expectancy Value"**. It is expressed through the following scheme.

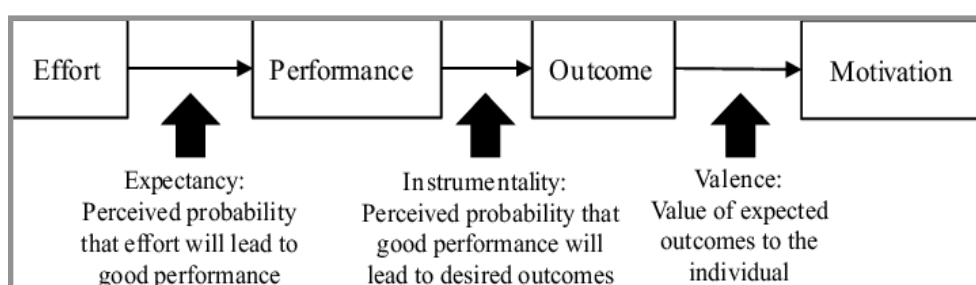


Figure 4: Vroom's "Expectancy Value". K.J. Harris et al., International Journal of Hospitality Management 63 (2017), 53–62.

The three factors interact, but all of them must be present and strong in order for motivation to be powerful in general.

The concept of "motive" includes such concepts as need, motivation, attraction, inclination, aspirations, etc. In all differences, common in these terms is the "dynamic" moment of action to certain target states, which regardless of their specifics always contain a moment of value and which the subject seeks to reach, whatever various means and ways may lead to it.

Work on human motivation focuses not only on the aforementioned relationship between behavior and outcome, but also on the types of outcomes that show a tendency to acquire psychological value for people. Two broad classes of outcomes have been identified that serve as potential motivators, provided that the motivation is structured in such a way that the outcomes follow the behavior directly. The first class are the so-called external results - payment, avoidance of punishment, approval. Their general characteristic is that they are separated from the activity and are external to person. The second set are results that appear spontaneously for humans - e.g. the feeling of satisfaction. These are motivators

that are inherent in the activity and are directly related to satisfying the human desire for competence and autonomy.

Various factors influence the formation of motivation, such as the positive atmosphere in the activity: administrative support, high appreciation and encouragement of personal initiative, creating the impression that the work of a particular person makes sense and is highly valued. On the other hand, unfavorable conditions, such as lack of autonomy; role uncertainty and inadequacy, problems with clear and precise distribution of functions and integration of efforts can erode motivation. It is assumed that personal characteristics also have a decisive influence on the course of the motivational process.

It is considered that the motivational system is fundamental in the structure of the personality. It covers a number of interrelated elements: motives, goals, ideals, value orientations, their aspirations, etc. If we consider the personality as a system, it is natural to accept the interdependence between all its subsystems, which includes the motivational sphere. Motivation is important for all the basic structural characteristics of the personality: it determines the way of the mental processes, the development of the abilities, the character, the intensity of the emotions.

## **How do we achieve long-term change in behavior?**

### **2.2 Exercise: "Pyramid of Values" (Popova Y et al.)**

**Objectives:** To reveal values and motivators

**Time:** 15 minutes

#### **Instruction:**

All participants receive a white A4 sheet and 6 sticky notes. Then they need to think about the 6 most important values and motivators for them (for example, clean environment, biodiversity, pollution control, lower carbon footprint, social communication, success, wisdom, prosperity, realization, knowledge, fame,

contacts, friendship, pay, etc.) and write them on the leaflets with printed letters. When ready, the small notes are glued to the white sheet in the form of a pyramid - first one (most important) is at the top, then two others and finally the last three, in the bottom row. The sheet is placed on the ground so that it can be seen by all participants. Time is given so that everyone can get acquainted with the work of others. It is allowed to interfere with comments or short free communication between participants. On a flipchart, everyone sticks the value or motivator they put on top of the pyramid. This will give a summary picture.

Participants reflect on the questions, "What can we do to achieve long-term change in behavior?" and "What can provoke you to change your values?". It is necessary to create a space for sharing by anyone who wants to speak. Common reasons for change in values are noted.

### **Debriefing:**

Values are related to what is important and has a high value for us. They are often the main and sustainable motivators in our behavior. These are the criteria on the basis of which we make our assessments and choices, set goals and build strategies for future action. Where in the pyramid of values are the ones related to environmental protection?

## **2.3 Strategies for Action**

Various traditional (strikes, protests, dissemination of information materials) and non-traditional forms of action (e.g. boycott of goods, demonstrations, volunteering, etc.) can be used to protect one's own or group values. They depend on the creative charge and imagination of active individuals and groups.

Similar are also:

**Pressure groups on social networks and other Internet opportunities:** Online access allows initiative groups through various techniques to engage in discussions related to community issues the majority of the public. Websites, discussion platforms,

newsletters and online conferences provide people with access to information materials and interaction with experts and other participants in order to give suggestions, recommendations, discuss options and set priorities. For example, online community dialogues allow participants to discuss a range of issues over several weeks. Participants can take part in a discussion or create a new one every day. The result is a set of priority issues and policy recommendations that can be used by community decision-makers on specific topics. As not everyone has access, electronic methods are often compared or offered as an alternative to face-to-face participation methods. Electronic methods of communication, such as email updates and online platforms, are particularly important for keeping in touch with citizens and sharing information and messages. Discussion groups on Facebook, Twitter and others are especially popular today.

Another strategy for action is **volunteering**, which brings a pleasant sense of satisfaction or respect, although there is no financial benefit - volunteers carry out their activities either completely free of charge or under certain conditions with minimum pay and living conditions while working abroad. Volunteers are known to develop their skills, which are very necessary for the often non-standard type of work they do, socialization (because they have to work often with many other volunteers, talk and communicate with people, trying to be from help for them) and also with the enthusiasm and joy of the activity. Most often, the reward for the efforts of volunteers is a kind word, recognition, praise from others or other volunteers. A good example of volunteering is the so-called "pedestrian bus", when the parents of the children in one school take turns to lead whole classes on foot to the school. Thus, neither personal nor school transport is required. Another type of volunteering in the field of environmental protection is the promotion of the use of bicycles for going to school by groups of children, again accompanied by parents.

The call for a boycott of goods is more political and ideological than economic and requires massive support in order to be effective. Other strategies for action are the refusal to use electricity, phone and others for a certain period of time.

## Collection of concrete ideas for action in the respective context

Before choosing the right strategy for action, we need to clarify our goals. What are the needs and interests, what has been achieved so far and what is our vision for the future?

### 2.4 Exercise "Design the Sustainable Green Future"

**Purpose:** the exercise acquaints the participants with the technology for identification and prioritization of needs/interests in the local community, related to sustainable development, environmental protection, reduction of emissions, reduction of the carbon footprint and others.

**Objectives:** after the exercise the participants have to: 1) be able to point out the most important environmental problems that need to be solved in the region in which they live; 2) after prioritizing, present a vision for solving a problem chosen by them.

**Time:** 30 minutes

#### Description:

- **Step 1:** Brainstorming: an environmental problem you want to solve in the local community within a year (**5 minutes** to write the problems on a flipchart).
- **Step 2:** From the listed issues, choose the one you consider with the highest priority (If there is no agreement among the participants, a ranking of the issues can be done. Each participant puts a point on two of the listed issues (The one that gets the most choices is set as working for the group). It is explained that this is just an exercise for creating a vision and can be related to any significant problem (**5 min**).
- **Step 3:** What has already been achieved on the problem (brainstorming with a brief description of the positive things that have been achieved at this stage in solving the problem) (**5 min.**).
- **Step 4:** What's the obstacle for solving this problem? (brainstorming with short obstacles) (**5 min.**).

- **Step 5:** What do we want to see as a result after a year? Desired state and overcoming obstacles (formulation and writing of the vision) (short discussion **10 min.**).

## 2.5 Reflection Task

An individual short self-reflection at the end of this session will help us keep our focus on the most important things:

- The most important environmental issue in my area is .....
- I can be a part of the change by doing....
- I can organize volunteer activities in my community for its sustainable development, such as.....
- One thing I can do better after this module:.....
- One thing I want to do better: .....
- How can I help others identify environmental problems and solutions?
- Am I aware of my values and goals?
- I can defend my environmental goals by doing...

## 2.6 NGOs/Networks that can help you learn more

- Eastern European Network for Citizenship Education (EENCE) <https://eence.eu/>
- Networking European Citizenship Education – International exchange to encourage the advancement of civic education (NECE) <https://epale.ec.europa.eu/en/blog/nece-networking-european-citizenship-education-international-exchange-encourage-advancement>
- What we do - Enhance the civic ecosystem and activate the local community <https://civic-europe.eu/idea-challeng/>
- Democracy and Human Rights Education in Europe (DARE) Network <https://dare-network.eu/>

- Understanding Europe - facilitate democratic citizenship education by and for young people <https://understanding-europe.org/en/about-us/understanding-europe/>
- Civic practices network – [www.cpn.org](http://www.cpn.org)
- Democracy net – [www.ned.org](http://www.ned.org)
- Amnesty International - <https://www.amnesty.org/en/>

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### 3. Cognitive Dissonance

#### Structure

1. Introduction to the Topic
2. Psychological Basis
3. Ways to Reduce Cognitive Dissonance
4. Cognitive Dissonance: Real Life Examples
5. Application of the Cognitive Dissonance Theory
6. Tasks

#### 3.1 Introduction to the topic

Everyone has experienced intense inner discomfort when he or she has to do something contrary to his or her personal beliefs, or when they unexpectedly learn information that is inconsistent with what they already know. In such situations, the person feels confused in his/her thoughts and looks for a way out.

For example, one may know that smoking is harmful to health, knowing that it can lead to physical problems in the future and still continue to smoke a few cigarettes every day.

In this case, we see how there are inconsistencies and contradictions between some thoughts of a person who smokes and his behavior when smoking.

There is a psychological theory that examines such situations in particular - **Festinger's theory of cognitive dissonance** (Festinger 1962: 2).

The author of the theory of cognitive dissonance is **Leon Festinger** - one of the pioneers of social psychology in the USA. In 1957, he published his book "A Theory of Cognitive Dissonance", in which he presented the phenomenon of "cognitive dissonance" using scientific evidence from in-depth research (Festinger 1962: 2).

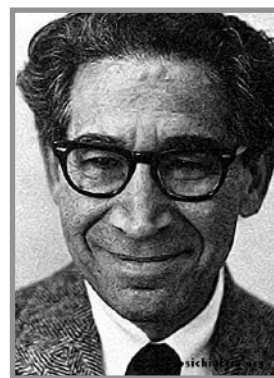


Figure 5. Leon Festinger, available at: <https://bg.psichiatria.org/teoriya-na-kognitivniya-disonans/>.

## 3.2 Psychological Basis

Festinger' theory is one of the main theories in **Cognitive Psychology**. As a branch of psychology, it studies the cognitive abilities and processes of human consciousness and the problems associated with memory, language use, logical thinking, attention, perception, imagination, decision-making abilities, etc.

For cognitive psychology, first and foremost, it is valid that it is a unique in its essence interdisciplinary branch of scientific knowledge. Cognitive psychology is the equivalent of gnoseology within philosophical science. It now occupies quite a large branch in psychology as a science.

### 3.2.1 Nature of “cognitive dissonance”

Cognitive dissonance is a state of inner tension, discomfort, and distress that arises when we discover an inconsistency (contradiction) in our cognitive system of judgment.

According to Festinger, cognitive dissonance does not exist by itself. We can understand its nature only in the system of our personal knowledge. This system of personal knowledge includes: our cognition about ourselves and our behavior, our cognitions about other people, our attitudes, expectations, values, our views about our environment, our attitudes towards the social world (society, groups).

Many psychological concepts and terms are not so easy to understand. Sometimes a detailed explanation is necessary. This also applies to the phenomenon of cognitive dissonance. What is that in simple words? The explanation of this concept is much simpler than it first appears.

Everyone has some life experience and personal opinion on how to solve certain situations. Nevertheless, it is not always possible to solve one problem or another based on one's own ideas and experience. Sometimes a person opposes his or her own opinion, for example in favor of the opinion of others, social values or the norms of the law. This inconsistency between thoughts and actions is called cognitive dissonance.

Cognitive dissonance also often occurs when a person has an important decision to make. Mental activity for some time will be directed towards sorting out in the head the possible options and their consequences.

### 3.2.2 Situations of occurrence of cognitive dissonance

According to Festinger's theory, cognitive dissonance occurs in several situations: We are faced with a choice between two options - for example, whether to get involved or not to get involved in the work of a given team.

We are forced to accept behavior contrary to our beliefs under the influence of a threat, a punishment, a promised reward.

Quite by chance or under someone's influence, we come across new information - for example, a competent colleague with experience in other organizations, tells us about the benefits of teamwork, which we have never thought about before.

Another person, with whom we are similar in our way of thinking, expresses an opinion that is different from ours - for example, we are eager to join the team, but the colleague who usually thinks like us says that this would be complete nonsense. An event happens that triggers the same reaction in many people and it disproves previously held views - for example, a new manager is appointed who explains to everyone the hopes they have for the team and this inspires everyone.

### 3.2.3 Individual responses

In the work environment, we encounter many situations in which we can experience cognitive dissonance. Do we all react in the same way?

According to Festinger's theory of cognitive dissonance, people have different responses to cognitive dissonance in nature and intensity.

For some people, cognitive dissonance is an unpleasant condition - it provokes unease, fear, stress, anger, low self-esteem. Usually these people cope with these conditions with difficulty and for a long time.

Festinger uses a special term when describing people's individual responses to cognitive dissonance. The term is "**dissonance tolerance**".

In this case, it is people whose tolerance is low for dissonance, experience intense discomfort, and use more effort to reduce the cognitive dissonance that occurs. In order to reduce the possibilities of inner contradictions, these people have the habit of seeing things only as “black” or only as “white.”

For other people, however, cognitive dissonance is an easier condition to overcome. People whose tolerance is high for cognitive dissonant states tend to maintain different “shades of gray” instead of just “black” or “white.”

Both responses indicate that cognitive dissonance is a motivator to take some action, which in turn aims to reduce dissonance.

Cognitive dissonance provokes us to make the necessary changes to fall back into a state of inner harmony and stability.

### 3.3 Ways to Reduce Cognitive Dissonance

Festinger’s theory of cognitive dissonance reveals **three main ways** we use to reduce our cognitive dissonance (Festinger & Carlsmith, 1959: 2).

These are:

1. We change some of the two cognitive elements that are in conflicting relationships.
2. We add new cognitive elements that will be compatible with the coherence relations already in place.
3. We reduce the degree of importance of elements that are in inconsistent relations.

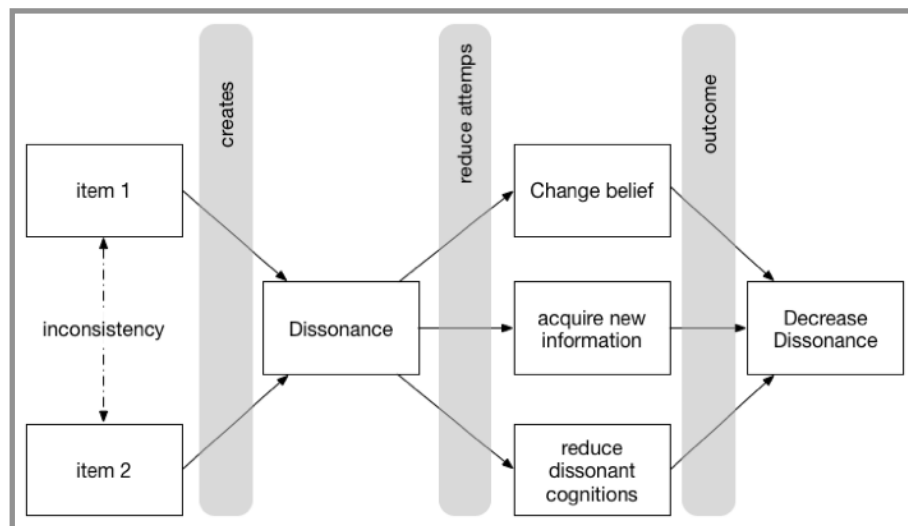


Figure 6. Visual representation of the “Cognitive Dissonance Theory” by Festinger, available online at: [https://www.researchgate.net/figure/Visual-representation-of-the-Cognitive-Dissonance-Theory-by-Festinger-adapted-from\\_fig4\\_324516098](https://www.researchgate.net/figure/Visual-representation-of-the-Cognitive-Dissonance-Theory-by-Festinger-adapted-from_fig4_324516098).

The state of cognitive dissonance causes psychological discomfort, which the person naturally tries to get rid of (or, at least somewhat, to reduce the unpleasant sensations). There are several ways in which you can achieve relief in your condition, namely:

If you feel that you are doing wrong or acting contrary to your beliefs, it is appropriate to direct your efforts in the opposite direction, if that is possible in this particular case;

To convince yourself of the correctness of your thoughts and actions (i.e., seeking an excuse for someone’s actions to reduce their guilt);

To take into account only positive data and to ignore all negative facts. This filtering approach is useful to avoid creating inner contradictions.

To gather all the information and facts about the situation, gain a comprehensive insight of it, and then build a new line of behavior that will be considered the only correct one.

### 3.4 Cognitive Dissonance: Real Life Examples

In real life, we often encounter such phenomena that cause cognitive dissonance.

Examples of them are numerous:

- The easiest example is the gold medalist and the mediocre student enrolled in university. It is logical that teachers expect high results and a decent level of knowledge from the former and have no particular expectations from the latter. However, it may happen that the excellent student gives a mediocre and incomplete answer to the question, while the mediocre student, on the contrary, will give a competent, meaningful answer. In this case, the teacher is in cognitive dissonance because his or her beliefs and expectations are not adequate for the real situation.
- In addition, cognitive dissonance can be seen in people with bad habits (e.g. smokers, or those who abuse alcohol). It is natural that they will eventually realize the harm of these habits to their body. In this case, there are two options. Either everyone individually tries in every way to get rid of the bad habit, or else he or she starts looking for excuses to compensate in some way for the possible damage that will be caused to health.
- Another example. The individual wants to acquire sports physics. After all, it is beautiful, attracts the attention of the opposite sex, allows you to feel good, helps improve health. To achieve this goal, he must start regular exercise, normalize his diet, try to follow a regimen and stick to a certain daily routine, or find a bunch of excuses that show that he really does not need it ( not enough financial or free time, supposedly poor well-being, physics within normal limits). Any actions of the individual in this way will be aimed at reducing dissonance that will be caused to health.
- A person (let's call him H), a close relative whom you know as very kind, understanding and always ready to help. Most of his relatives remember him as such and believe that he is completely incapable of doing anything wrong. But at one point H learns that his dear relative has committed a serious crime in his youth, and this comes as a shock to him. In this situation, the emergence of new information, sharply contradicting the existing, provokes the emergence of cognitive dissonance.

- Europe's green deal must make Europe climate-neutral. However, some of the planned changes will severely affect people in some countries. For example, in Bulgaria an exceptional challenge will be the reduction of harmful emissions from transport, the abandonment of coal as an energy source and others. Many of these measures are unacceptable in the short term for the people. Unemployment will increase after the closure of the coal industry. People's incomes are insufficient to replace their cars.

### 3.5 Application of the cognitive dissonance theory

Festinger's cognitive dissonance theory finds wide application in people and process management, product and event advertising, human relationship management, all types of communication, crisis management, etc. Of course, it also has wide application in personal life.

For example, a teacher can stimulate students' desire to learn something new about environmental problems if they cause cognitive dissonance. Therefore, he can challenge the point of view of one or more of his students and invite them to conduct observations and practical experiments related to afforestation, cleaning of water basins, protection of soils from erosion and more. Thus, students have a new motivation for significant activity-es for nature and society.

The theory of cognitive dissonance is often used by marketers: entire sales strategies are built on its positions. For example, the advertising slogan of a famous Western company "You take care of yourself and your family. Why not choose the best? "It causes the cognitive dissonance of the client, combined with a sense of guilt for having enough money and not buying the best products for their loved ones.

The promotion of a healthy lifestyle can also be built with the help of the theory of cognitive dissonance. For example, shocking data on the number of AIDS deaths have forced many people to choose safe sex and start buying condoms. This is the situation with Covid, which is why many people chose vaccines.

### 3.6 Tasks

Look at the questions below to get some ideas about cognitive dissonance in everyday life. Use them for discussions!

#### **For teachers:**

1. What are the most common causes of cognitive dissonance in the organization in which you work? New things, including news, that differ significantly from what you already know? Colleagues and supervisors who change their positions on significant issues? Events that trigger the same response in many people because they contradict previously held views? Situations where you have to make decisions frequently?
2. What are your responses when your cognitions clash with other cognitions that are incompatible with yours? Do you experience anger? Fear? Do you feel depressed, ignored, sad, and lonely? Are you taking any action to change your condition?
3. What is the communications policy between colleagues and with the leadership in the school? Does it trigger negative responses? Or does it provoke positive and constructive motivation?
4. Are discussions, different opinions, ideas, suggestions encouraged?
5. Is there a sense of support from colleagues and supervisors towards ideas, suggestions and innovations from employees? Are bold decisions supported? Or is initiative sought from employees without further management support?

#### **For students and teachers:**

1. What happens to task performance evaluations? Is there a practice of self-assessment? Do teachers discuss students' grades with every student individually?
2. Do you experience cognitive dissonance in communicating with nature? Are your knowledge and beliefs at odds with new EU environmental



regulations? How would you comment on the impact of green measures on people who will be unemployed? Do you experience cognitive dissonance in the selection of foods that can reduce harmful carbon dioxide emissions into the atmosphere?

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## 4. Individual Influence on the Environment

### Structure

1. Introductory Task: Our Impact on the Environment
2. Food Sharing
3. Leftover-Food
4. What Influence do our Eating Habits Have on the Environment?
5. What can You do to eat Climate-Friendly?
6. Spread the Word
7. References

### 4.1 Introductory Task: Our Impact on the Environment

**Time:** approx. 10 - 20 min depending on the level of difficulty

Collect examples (e.g. new potatoes, meat substitutes from the 3D printer, energy drinks with a cool image or cheap tomatoes from Spain) for the interrelationship between supply and demand of food. Under what circumstances would you feed yourself differently, and how? Which foods would you choose? How should the offer change? How would you like to change your eating habits? Would you choose more organic, regional or seasonal foods? Do you prefer a certain way, such as vegetarian or vegan diet, or would you change your diet?

Write the examples individually on moderation cards, present the results in short words. The moderation cards are then clustered on a pin board.

**Version 1 (easy):** Discuss the result: Where is there a one-sided connection, where is there an interrelationship? Where are dependencies? Where contradictions? – Keywords are collected on a poster or presented graphically.

**Version 2 (medium):** Draw a mind map with the moderation cards - where are the thematic similarities, what are the relationships between the clusters? What are these relationships like? Try to describe them.

**Version 3 (difficult):** Attempts to systemically analyze the relationships between the moderation cards. What is the relationship behind the individual elements of

the system, what distinguishes the system, what are the similarities? Which elements have a strong influence on the active structure (active elements), which have a weak/no influence (passive elements), where are positive control circuits (+) that reinforce/build up themselves, where negative control circuits (-) that are self-reinforcing?

## 4.2 Food Sharing

"Foodsharing literally is a way of sharing food." There are usually regional initiatives that create a place where leftover food that is no longer needed is kept and made accessible to interested parties free of charge and in an uncomplicated manner. Better to use, than to throw away. Either people can simply take groceries with them, or the donated food is made available to people who are particularly in need.

Food is wasted along the entire value chain, starting in the field where crooked cucumbers and ugly potatoes are plowed back into the fields, in the supermarket where goods that have passed their best before date end up right in the dumpster behind the store, and also among the people homes, who have shopped too much or whose plans have changed.

In Austrian households alone, around 157,000 tons of packaged and unpackaged food are thrown away every year. Leftovers worth more than a billion euros end up in the residual waste. This makes goods worth around 300 euros per household and year that are destroyed (Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie (BMK) 2021).



Figure 7. Foodsharing in Germany, Davide Mauro, CC BY-SA 4.0. available online at: Wikimedia Commons, <https://creativecommons.org/licenses/by-sa/4.0>.

### Exercise

This exercise should take approximately 10 minutes. Research initiatives in your area/city: who is behind it, how is the distribution organized, who benefits from it? Examples: Wiener Tafel <https://wienertafel.at/lebensmittelrettung/>; <https://foodsharing.de/>.

### Exercise

This exercise should take approximately 10 minutes. Reflect: Were there situations where you had leftover food? What did you do? Have you ever donated food? What are the pros and cons? Discuss in the group.

## 4.3 Leftover-Food

What was everyday life for the generations of the post-war period and the time of the global economic crisis is for us a return to a sustainable lifestyle. Leftovers were not simply thrown away, but used the next day and made into tasty dishes. Vegetables and leftover meat were often “stretched” with noodles, rice or potatoes to create a delicious stew or nutritious soup. Today there are also many sites on the Internet and special cookbooks that help to conjure up real menus from leftovers.

Prominent examples of Austrian cuisine include Viennese Schickenfleckerl, Carinthian Ritschert and Tyrolean Gröstl.

### Exercise

This exercise should take approximately 10-15 minutes. Which leftovers do you know? Are there old recipes from your ancestors? Research sources and share the top 3 tips for using up leftover food. Examples: <https://www.bestrecipes.com.au/budget/galleries/easy-dinner-ideas-leftovers/576dih6x>; <https://www.lovefoodhatewaste.com/recipes>.

#### 4.4 What influence do our eating habits have on our environment?

When we buy, transport, package and ultimately consume food, we use important natural resources. For example, consuming dairy products, eggs, and meat uses more resources than consuming fruits and vegetables.

##### **How climate-friendly do I eat? The Ecological Footprint**

The ecological footprint is a complex index that describes how much land a person needs to meet their resource needs. Criteria include the origin and type of food consumed, the means of transport used and the production conditions of consumer goods. (Big Feet, 2021.) You can easily calculate your food footprint online, e.g. at: <https://www.earthday.org/foodprints-calculators/>; [https://www.naturefund.de/wissen/co2\\_rechner/](https://www.naturefund.de/wissen/co2_rechner/)

#### 4.5 What can you do to eat climate-friendly?

- Buy regional and seasonal products, they don't have to be transported far.
- Reduce consumption of animal products, especially meat.
- The consumption of organic products from the region reduces the use of fertilizers and pesticides and thus protects the arable soil, the environment and helps to preserve biodiversity.
- Store the food correctly, this extends its shelf life. Even if the best-before date has passed, food does not have to be thrown away immediately. Judge the food with common sense: look, smell, taste - this is how you can tell if it is spoiled.
- Avoid packaging material, eg. drink tap water instead of bottled water

Although these general tips for climate-friendly nutrition are universally valid, they can be applied in a variety of ways, depending on the environment and circumstances. What could a climate-friendly diet look like for you, what could you change?

## Exercise

This Break-Out Task should take approximately 30 minutes. Write a little guide - with which specific measures can you save resources in your diet?

**Instructions:** Write about 2 to 3 pages. Be as specific as possible with the instructions: e.g. For my snacks, I use a reusable snack box that keeps my food fresh and doesn't require any additional packaging such as aluminum foil. I'll take fresh apples and peeled carrots with me. For drinking I use a drinking bottle and fill it with water or diluted directly squeezed juices...

## 4.6 Spread the Word

Together we can change something. Do you know The Fable of the Grain of Rice on the Chessboard? You can read it online in English or German on these pages: <https://purposefocuscommitment.medium.com/the-rice-and-the-chess-board-story-the-power-of-exponential-growth-b1f7bd70aaca>(English); <http://www.martinroedel.de/25er/maerchen.htm> (German).

**Estimate:** If you tell only 2 people how to make nutrition more sustainable, and they tell it to 2 people again - how many people know about it after telling them 10 times? (Solution: 512 people)

## Group Work Instructions for Sustainable Consumption

This should take approximately 20 minutes. Put yourself in different roles in your environment, try to develop typical characters (3 to 4 completely different ones), the description can also be very exaggerated and clichéd, like a character in a comic (e.g. a fat farmer who prefers to eat roast pork and schnitzel and thinks Pasta Bolognese are vegan dishes).

This task should take approximately 20 minutes. Now consider a communication strategy for each of your invented characters: What could instructions for sustainable consumption look like? Which media should I use, how should the content be designed, how complex can the content of the guide be?

The method of developing a communication strategy with invented people (so-called "personas"), who describe the essential characteristics of my target group, comes from marketing.

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### **Ecological Footprint**

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## 5. Opportunities for Participation

### Structure

1. Introduction
2. Influence on the Policy Level
3. Individual Behavior
4. What we Eat, How we Live has an Impact!
5. Label Diversity
6. Diet: Omni-, Carni-, Herbi- Frubivore?
7. LEADER
8. Examples of NGOs, Initiatives and Networks
9. References

### 5.1 Introduction

**Food is political! Why your diet has an impact on agriculture and how you can ensure good farming.**

At first glance, the Common European Agricultural Policy (CAP) may not seem to have much to do with your everyday life. However, this impression is deceptive.

First of all, it is important to keep in mind that almost every food you eat is directly or indirectly affected by CAP regulations.

The CAP not only affects what ends up on your plate, but also how it is grown or produced, how much it costs and what conditions apply to farmers, workers and people involved in processing, marketing and selling it.

The Common Agricultural Policy also affects many other elementary aspects of your lives:

- Impact on nature (e.g. limiting the application of fertilizers, etc.)
- Influence on eating habits (indirect pricing)
- Influence on the social environment (mainly in rural areas) - but also recreational space for city dwellers

**Task:**

Discuss which areas are particularly important to you and what other aspects you can think of. Make a note of these, so that they can be taken up again at a later stage.



Figure 8. Own illustration, Image sources available at: GAP\_Gemeinsame\_Agrarpolitik\_EU\_AdobeStock\_20765504 7-Konvertiert.jpg.

**Sometimes it is difficult to distinguish between agriculture and agricultural policy.**

**What is the impact of the policy?**

There are direct impacts and indirect impacts:

**Direct impacts**

- Direct payments to farmers - income support
- Investments for farmers
- Promotion of organic farming
- Payment for organic services
- School fruit
- Support (investment) in rural areas

**Indirect impacts**

- Price support for agricultural products
- Destruction versus protection of cultural landscape (plants and animals)
- Safeguarding rural areas for recreation and tourism

## Question:

Which impacts do you know? Give reasons.

However, this is about how civil society; that is, you and your family, colleagues, classmates, etc. can influence agri-cultural policy. You can do this even if you don't own a land or have your own farm.

There are many ways to participate:

## 5.2 Influence on the Policy Level

Decisions on the Common Agricultural Policy are made in the individual member states and the European Union. In addition to governments, political parties, the so-called economic and social partners, as trade unions, employers' organizations and non-governmental organizations (NGOs) are involved in the development process.

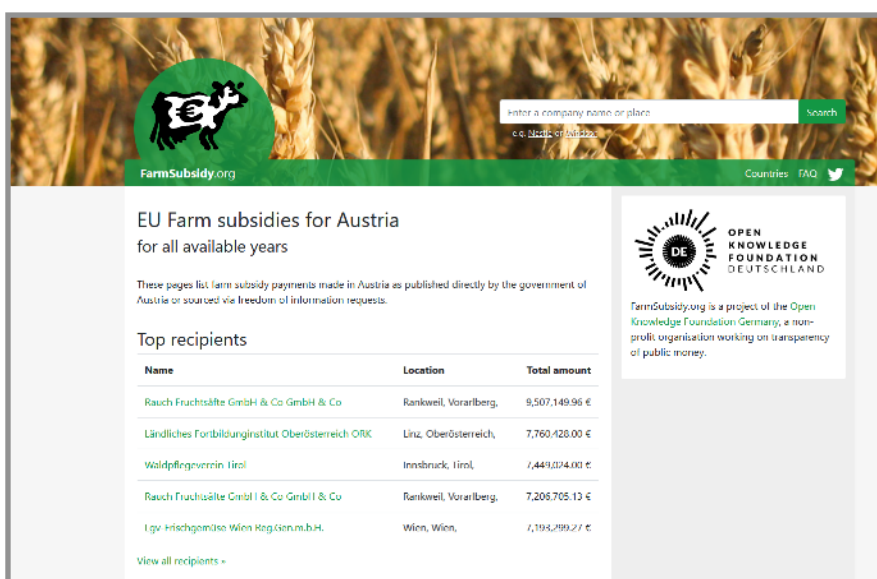
Both the political parties and the NGOs have numerous working groups that deal with agricultural issues and try to assert their interests.

Initiatives in Germany are, for example: Nabu, ABL, BUND, Greenpeace. Further examples for NGOs and networks are listed at the end of the text.

The European Union also often conducts online surveys on specific topics.

Everyone, including you, can take part in these.

In addition, there is the transparency register. This means that subsidies are transparent: each company (not private individuals) is named with the amount of subsidy and can be viewed online.



The screenshot shows the FarmSubsidy.org website. The header features a green bar with a cow icon and a search bar. The main content area is titled 'EU Farm subsidies for Austria for all available years'. Below this, a text block states: 'These pages list farm subsidy payments made in Austria as published directly by the government of Austria or sourced via freedom of information requests.' A table titled 'Top recipients' follows, listing companies, their locations, and the total amount of subsidies received. The table has three columns: Name, Location, and Total amount. The data is as follows:

| Name   | Location              | Total amount   |
|--|-----------------------|----------------|
| Rauch Fruchtzölle GmbH & Co GmbH & Co              | Rankweil, Vorarlberg. | 9,507,149.96 € |
| Ländliches Fortbildungsinstitut Oberösterreich ORF | Linz, Oberösterreich. | 7,760,426.00 € |
| Waldpflanzengewinn Linz                            | Innsbruck, Tirol.     | 7,449,074.00 € |
| Rauch Fruchtzölle GmbH & Co GmbH & Co              | Rankweil, Vorarlberg. | 7,205,705.12 € |
| Lgv. Hirschgörmisch Wien Reg.Ges.m.b.H.            | Wien, Wien.           | 7,194,499.27 € |

Below the table, there is a link 'View all recipients >'. On the right side of the page, there is a logo for 'OPEN KNOWLEDGE FOUNDATION DEUTSCHLAND' and a text block stating: 'FarmSubsidy.org is a project of the Open Knowledge Foundation Germany, a non-profit organization working on transparency of public money.'

Figure 9. EU Farm subsidies for Austria, available at: Farmsubsidy (2021).

**Task:**

Use the attached link: [www.farmsubsidy.org](http://www.farmsubsidy.org) and see which recipients in your country top the list. Which of the listed companies do you know? What is your opinion about them?

**5.3. Individual Behavior**

You can get involved yourself in order to have an influence. There are many ways to do this too.

**Demonstrations:**

You have probably heard of the Friday for Future protests. Students have been protesting for climate justice at these protests since 2018.

People all over Europe are also taking to the streets for agricultural policy. Outside of parliament, they are campaigning individually or with non-governmental organisations (NGOs), for example in association initiatives, for a change in agriculture.

In Germany, a large annual demonstration has been taking place since 2011 under the slogan: "We're fed up!", which has been joined by many associations, organisations and groups calling for a change in agriculture. The initiative brings together, for example, actors from the following networks

Bund für Umwelt und Naturschutz Deutschland, Arbeitsgemeinschaft bäuerliche Landwirtschaft, Naturschutzbund Deutschland, Brot für die Welt, Demeter, INKOTA-netzwerk, Misereor, Oxfam, Slow Food Deutschland and formulate their demands to politicians.

These may include fair payment for a life worth living, the abolition of factory farming, the improvement of farming conditions or a fairer distribution of EU agricultural subsidies that more strongly promotes sustainable agriculture and, in return, more severely sanctions environmentally damaging management.

**Task:**

Attached you will find the demonstration call of the initiative "we are fed up" from Germany <https://www.wir-haben-es-satt.de/informieren/aufruf/englisch/>

Which of the listed aspects do you find worthy of support and why.

In addition to the demonstration, information events, networking and further work on specific aspects also take place.



Figure 10. Huge demonstration "We are fed up!" in Berlin (Germany), available at: WHES (2021).

**Questions:**

Are there initiatives in your country that advocate for change in the agricultural economy?

How do they act, what are their demands and what actions do you know?

**Task:**

What would be "your way" to get involved and what would be your demands.

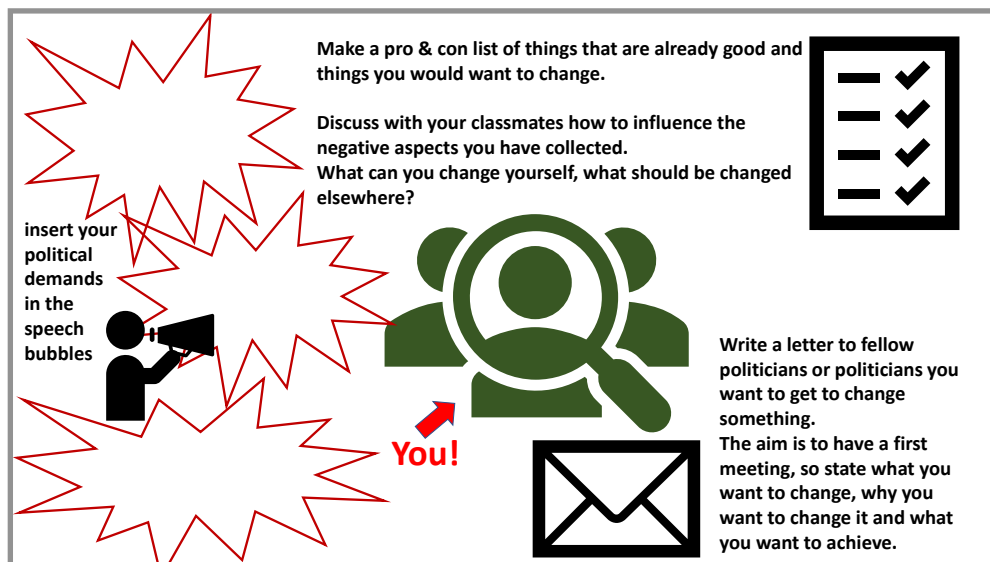


Figure 11. Possibilities for Political Participation. Own Depiction (2022)

## 5.4 What we Eat, How we Live has an Impact!

Besides political participation, your everyday life can have a positive as well as a negative impact. This is most obvious in our consumption behavior. In terms of agricultural production goods, we are back to the topic of agricultural policy. Here, it is obvious to look at our eating behaviour and perform research on the influence of the contents of your shopping cart at the supermarket checkout.

### **"Your shopping receipt is a ballot paper"**

You may have heard this saying before and wondered what it means.

It doesn't just mean that you are showing your choice of individual taste or preference for a particular brand. What you consume determines much more. Were resources protected during the production of your chocolate, were fair working conditions promoted, were regional structures strengthened or was attention paid to animal welfare? All this has far-reaching effects.

With your decisions at the checkout of the supermarket, the petrol station or in the café around the corner, you can show a sense of responsibility towards the environment and the people. You can do a lot if you know what to look for. We would like to list a few possibilities here.



## What do you really need?

Before you go shopping, think about what is really missing and what is necessary. How long will the food at home last? A good overview of what is stored in your fridge will help you avoid food waste.

## Origin of goods

Labels and product markings provide information on where products come from and under what conditions they were produced. A regional product can save CO<sub>2</sub> by avoiding long transports to the supermarket and may support the farm just around the corner.

**Attention:** Some so-called regional products are unfortunately shipped to other continents for further processing, in order to be prepared ready for consumption there and then transported back again and sold as a "regional speciality". What helps is to pay attention to the product labels and to be aware.

### Task:

Research the route of these typical Nordic North Sea crabs. (Yes, fishery products are also subject to agricultural policy!)



Büsum delicatessen  
typical Nordic

simply delicious

North Sea crabs  
cooked and peeled

caught in the North  
Sea

Figure 12. Product Label. available at: Shopify (2021).

If you want to be on the safe side, shop at local weekly markets or directly at the farm around the corner. Some countries have online registers where you can find regional direct marketing options.

**Task:**

Research regional farms or suppliers around your corner. Discuss together whether it could be worthwhile to buy there and what effects it could have.

## 5.5 Label Diversity

Labels can be helpful in making sustainable purchasing decisions. Some people trust certain organic labels or look for certification according to Fairtrade guidelines. In some countries, regional labels are particularly popular.

In principle, labels can be helpful even if they are abused by some "black sheep", because they provide orientation and are at least subject to controls or can provide clarity about certain factors of production.

Some people criticise that the large number of labels makes it confusing and call for fewer labels to make it easier for consumers to keep track.

**Task:**

Use the attached table and find out about labels and certifications in your country and research the standards behind them. Then discuss which labels appeal to you and why?

| Regional   | Organic    | Animalwellfare | Fairtrade  | Fishery    | Other labels & markings |
|------------|------------|----------------|------------|------------|-------------------------|
|            |            |                |            |            |                         |
| Specifics: | Specifics: | Specifics:     | Specifics: | Specifics: | Specifics:              |
|            |            |                |            |            |                         |



## 5.6 Diet: Omni-, Carni-, Herbi- Frubivore?

Last but not least, your diet has a considerable impact on the environment and society, sometimes even globally.

What ends up on your plate is related to more than you, your hunger and your wallet.

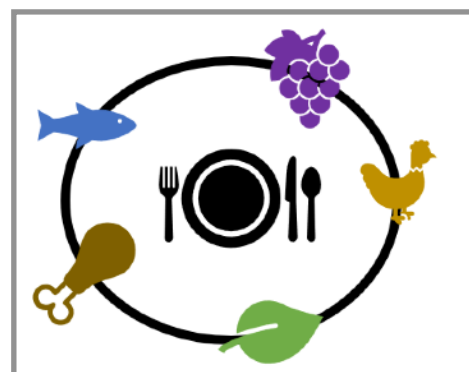


Figure 13. Different Diets. Own Depiction (2022).

The chart below illustrates the global connections between workers in Romania, anti-biotic resistance in Europe, leftovers that are shipped to Africa and destroy markets there, and hunger on the continent. Then there are diseases caused by glyphosate in Argentina and the deforestation of the rainforest in Brazil, as well as the melting of the ice in Greenland due to climate change. Quite a big wave for such an everyday thing as "satisfying one's hunger", isn't it?

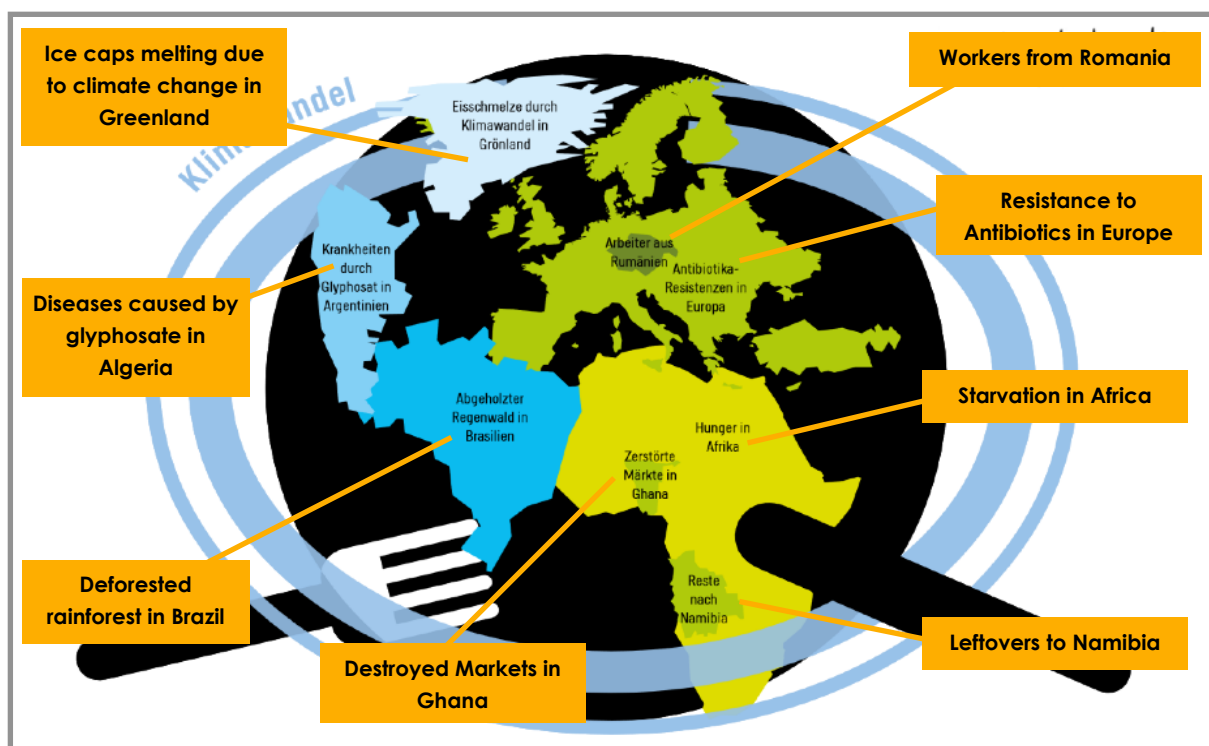


Figure 14. Your Plate Influences the World, available at: Böll (2021).

However, it is evident that a change is taking place among young adults and the Fridays for Future movement is influencing the younger generation.

### Task:

The graph below shows the distribution of eating habits among young people in Germany and their attitudes towards FFF. What do you think?

Draw a graph like the one below for your class and discuss it.

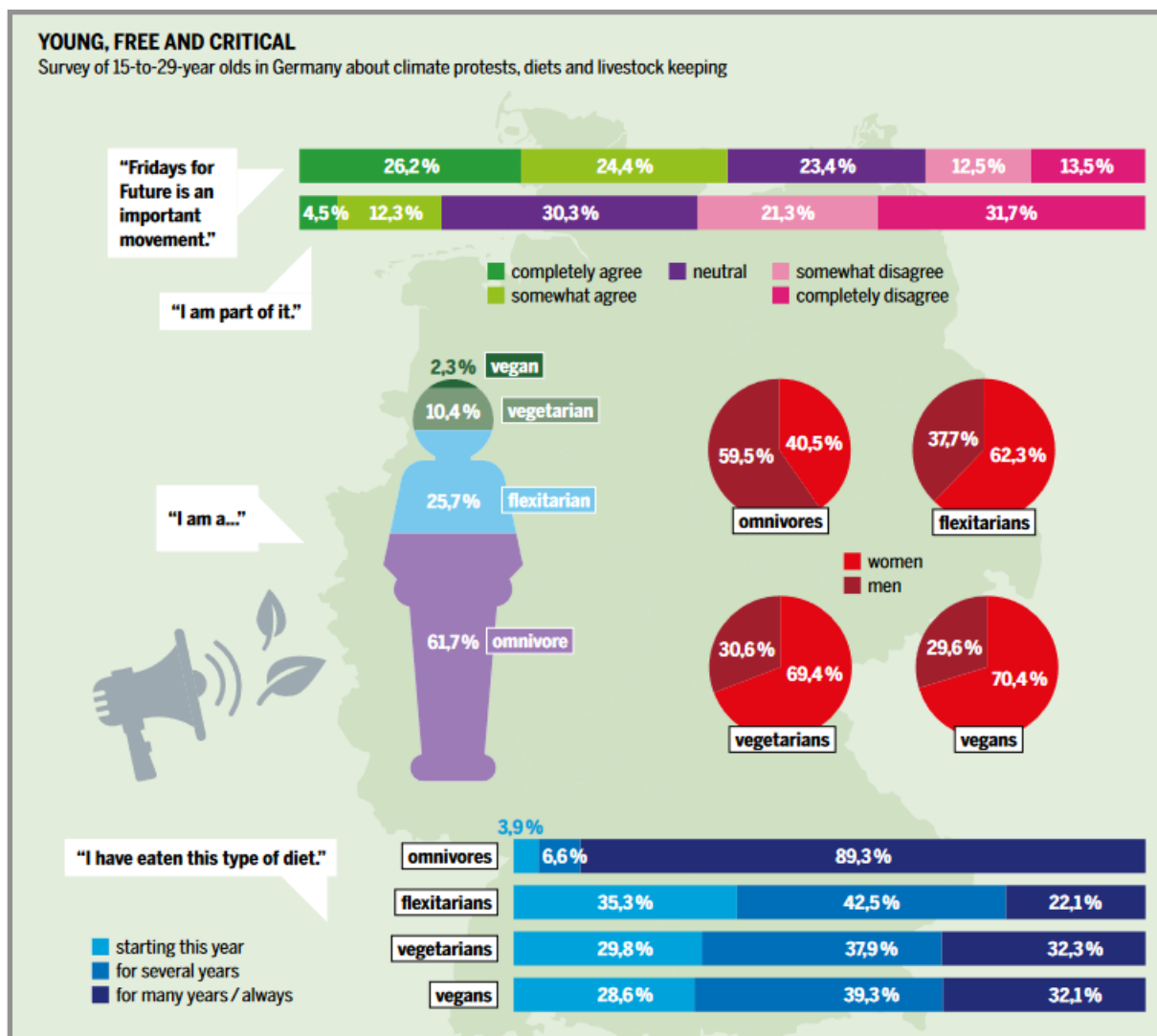


Figure 15. Eating habits of the youth. available at: Böll (2021, p. 69). Changing Habits.

Lastly, you can "advocate for good agriculture" and bring important issues to the forefront.

For example, by raising animal welfare issues or advocating for more regional

products or the protection of bees and insects.

With your work in agriculture, you are close to the issues and have more expertise than many other people. Try to convince them and make a strong case for sustainable agriculture.

## 5.7 LEADER

The European Union has set up a special program to promote rural areas under the second pillar of the Common Agricultural Policy (CAP). Part of this program is the LEADER funding line.

The name LEADER stands for "Liaison entre actions de développement de l'économie rurale". This means that it is about promoting links between actions for the development of the rural economy.

Every 7 years, local action groups, so-called LAGs, can apply for LEADER funding.

The Local Action Groups come from the population of the respective region. They should be made up of local actors and jointly consider and plan how they want to develop THEIR rural area.

Municipalities and rural districts may and should participate in these action groups, but must not have a majority.

What is promoted and implemented varies greatly. However, it is important that LEADER follows the so-called bottom-up approach, i.e. a participatory character. This means that every person can and should contribute and be heard.

LEADER focuses on cooperation, networking, innovation, regionality and integrated multi-sectoral actions (Lei.LA: 2021).

For example, special youth topics, social projects, environmental projects, but also economic projects (e.g. farm shops) and educational and demonstration projects can be promoted.

If a project is represented by LEADER, this funding by the EU must be shown:

## EU Marking



Figure 16. LEADER Example. Own Depiction (2022)

### Tasks:

1. Research Leader action groups in your area!

[https://enrd.ec.europa.eu/leader-clld\\_en](https://enrd.ec.europa.eu/leader-clld_en)

Collect what you have found and discuss it with your classmates.

Design a poster together on which you present the positive aspects and also the possible challenges.

2. Which Leader project would you like to implement?

Form "local action groups" in the classroom like in Leader and try to find a common project. What are the next steps?

## 5.8 Examples of NGOs, Initiatives and Networks

| NGOS & Networks                                    | Website   |
|--|---|
| Greenpeace   | <a href="https://www.greenpeace.org/international/explore/">https://www.greenpeace.org/international/explore/</a> |
| Bund für Umwelt und Naturschutz Deutschland (BUND) | <a href="https://www.bund.net/bund-in-english/">https://www.bund.net/bund-in-english/</a>                         |
| Naturschutzbund (NaBu)                             | <a href="https://en.nabu.de/">https://en.nabu.de/</a>   |
| Der World Wide Fund For Nature (WWF)               | <a href="https://www.worldwildlife.org/">https://www.worldwildlife.org/</a>                                       |
| Industriegewerkschaft Bauen Agrar Umwelt (IG BAU)  | <a href="https://igbau.de/Forst-und-Agrarwirtschaft.page">https://igbau.de/Forst-und-Agrarwirtschaft.page</a>     |

|  |   |
|--|---|
| Arbeitsgemeinschaft bäuerliche Landwirtschaft (AbL)                              | <a href="https://www.abl-ev.de/start">https://www.abl-ev.de/start</a>   |
| European Federation of Trade Unions in the Food, Agriculture and Tourism (EFFAT) | <a href="https://effat.org/">https://effat.org/</a>   |
| Foodwatch  | <a href="https://www.foodwatch.org/de/startseite/">https://www.foodwatch.org/de/startseite/</a>                                   |
| Fundación Global Nature (FGN)  | <a href="http://www.fundacionglobalnature.org">www.fundacionglobalnature.org</a>  |
| Association for Stimulating Know-how (ASK)                                       | <a href="http://www.askindia.org">www.askindia.org</a>  |
| Sustainable Agriculture Network (SAN)  | <a href="http://www.sustainableagriculture.eco">www.sustainableagriculture.eco</a>  |
| Initiative für nachhaltige Lieferketten (INA)                                    | <a href="https://www.nachhaltige-agrarlieferketten.org/en/">https://www.nachhaltige-agrarlieferketten.org/en/</a>                 |
| Oxfam  | <a href="https://www.oxfam.org/en">https://www.oxfam.org/en</a>   |
| Brot für die Welt  | <a href="https://www.brot-fuer-die-welt.de/en/bread-for-the-world/">https://www.brot-fuer-die-welt.de/en/bread-for-the-world/</a> |

## 5.9 References

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2. LEADER (2021): [https://enrd.ec.europa.eu/leader-clld\\_en](https://enrd.ec.europa.eu/leader-clld_en). Last retrieved 22.03.2021
3. Lei.La, Leistende Landwirtschaft e.V. (2021): Was ist LEADER? <https://www.leader-leila.de/home/rund-um-leader/was-ist-leader/>. Last retrieved 22.03.2021
4. WHES (2020): Call for actions: <https://www.wir-haben-es-satt.de/informieren/aufruf/englisch/>. Last retrieved 28.03.2021

## 6. Information Material

### Structure

1. Newspaper Article: "Millions of Tonnes of Dead Animals: the Growing Scandal of Fish Waste"
  1. Exercises for Students
  2. Exercises for Teachers
  3. Guides and Counsellors/NGOs for Sustainable Behavior
2. Newspaper Article: "Revolutionary in a quiet way: the rise of community gardens in the UK"
  1. Exercises for Students
  2. Exercises for Teachers
  3. Guides and Counsellors/NGOs for Sustainable Behavior

### 6.1 Newspaper Article: "Millions of Tonnes of Dead Animals: the Growing Scandal of Fish Waste", by Emma Bryce

Published 9th of May 2022 by *The Guardian*, available at: <https://www.theguardian.com/environment/2022/may/09/millions-of-tonnes-of-dead-animals-the-growing-scandal-of-fish-waste>



Figure 17. Roughly 100,000 dead fish dumped by a factory ship in February 2022 off La Rochelle, France. Photograph: Sea Shepherd/AFP/Getty.



Dumped at sea, lost on land or left to rot in shops and fridges, the global catch of fish is being wasted like never before – hurting not only the oceans but the nutrition of billions of people. Can it be reversed?

In February 2022, a Dutch-owned fishing trawler released a silvery stream of 100,000 dead fish, which carpeted several thousand square metres of ocean off the coast of France. The vessel's owners blamed the discharge on a faulty net. Environmental groups alleged that the fish were intentionally dumped.

Whatever the truth, that spectacle of squandered sea life was the tip of the iceberg: figures from WWF show that in 2019, at least 230,000 tonnes of fish were dumped in EU waters. Most of the waste – 92% – is related to bottom-trawling, a fishing method that scrapes the seafloor, indiscriminately scooping up everything in its path.

But this figure is a small fraction of an even larger global issue. The UN Food and Agriculture Organization (FAO) estimates that 35% of all fish, crustaceans and molluscs harvested from oceans, lakes and fish farms are wasted or lost before they ever reach a plate.

Fish are highly perishable and fragile, which makes them more vulnerable to waste, a problem that is compounded by haemorrhaging fish at every step of the supply chain. Fish waste is especially shocking, says Pete Pearson, senior director for food waste at WWF, because they “are wild animals, so we are harvesting wildlife”.



Figure 18. The fishing trawler *Crystal Sea*, which operates out of Newlyn, Cornwall. The catch includes all types of sea life. Photograph: AFP/Getty Images

Fish populations are already threatened by overfishing, pollution, and the climate crisis. With current rates of fish consumption projected to double by 2050, waste is increasingly on the radar of regulators. “We have to do something about it,” says Omar Peñarubia, a fisheries officer at the FAO.

That begins, experts say, with understanding exactly what is driving waste between harvest and plate. The task is made difficult by fisheries' notoriously opaque supply chains, and incomplete datasets that are also inconsistent, although the evidence is clear that most fish waste starts at the point of extraction.

Just under half of all fish consumed by people is wild-caught at sea. "There's such abundance that we've grown to be OK with certain loss rates," Pearson says, although noting that 34% of global marine stocks are now overfished. Bycatch (unintentionally caught, unwanted fish) is a growing problem, too: roughly 10% of wild-caught fish are discarded worldwide each year, representing 8.6m tonnes of animals. The main culprits are imprecise fishing gear and policies that allow fishers to discard non-target species.



Figure 19. Fishing boats setting sail in Yangjiang, Guangdong province of China.

Photograph: VCG/Getty Images

There's an economic driver, too. "I think there is a strong connection between subsidies and waste in the water," says Rashid Sumaila, professor of ocean and fisheries economics at the University of British Columbia.

Although subsidies were historically devised to support small-scale fishers, today 80% of \$35.4bn (£26.4bn) in annual fishing subsidies goes to a handful of industrial fleets, Sumaila's research shows. These include gargantuan bottom trawlers that are uniquely equipped to travel out to the high seas and overfish, leading to discards on an industrial scale.

The impact of illegal and unreported fishing is also important, says Sumaila, as it is likely contributing tonnes more bycatch to global fish waste.



## Food for 3 billion people

Fish waste is about more than just the physical loss of fish: for the 3 billion people whose diets depend on fish, it is a lost nutritional opportunity.

“The narrative is that we have to produce more to feed the growing masses, but the greatest pathway to [increasing] supply is reducing loss and waste,” says Shakuntala Thilsted, global lead for nutrition and public health at World Fish and winner of the 2021 World Food Prize.

Many see controlled aquaculture systems (or “fish farms”) – which generate more than half our fish supply – as a solution to the waste of wild fishing. But Dave Love, senior scientist at the Johns Hopkins Center for a Livable Future, says that various factors, such as disease, are driving considerable losses on farms, too. “Mortality in fish ponds is actually a significant source of lost potential food,” Love says.

Fish waste continues after harvest – though how it unfolds differs depending on location. The FAO estimates that 27% of all fish globally is lost or wasted after landing, but in low-income countries the fish is more likely to be unintentionally lost than wasted, says Peñarubia. One study showed that in Ghana, Burkina Faso and Togo, 65% of lost fish on land was attributable to poor handling, lack of storage and cooling facilities on fishing vessels and along the lengthy supply chain.



Figure 20. A fish-drying plant in Bangladesh. Much fresh fish waste is caused by poor handling and a lack of storage and cooling facilities on vessels. Photograph: Xinhua/Rex/Shutterstock.

Fish disappear after distribution, too, but here the culprits are retailers and consumers, almost exclusively in middle-and high-income countries. In North

America, Oceania and Europe, fish waste at consumption far outstrips that of any other region in the world.

Pearson thinks retailers in the US partly contribute to the problem by prioritising large, fresh fish to sell at a premium, which quickly spoil. "This is the real tragedy, because it's moved all the way through the supply chain, and then we're comfortable with a 10% to 30% loss rate in the grocery store," he says.

When retailers prioritize fresh fish, "the ripple effect is that consumers are more likely to waste that in their homes," says Love, who published research showing that retailers were responsible for about 16% of wasted seafood in the US, while up to 63% comes down to consumers putting uneaten fish in the bin.

### **Go frozen?**

Solutions do exist to reduce fish spoilage along the supply chain. Increasing access to cold-chain technologies in low-income countries, along with methods such as solar-powered drying tents, could extend the shelf life of fish. Fishers and processors also need training on better fish handling and storage to limit loss, Peñarubia says.

At the consumer end, Pearson and Love argue that we should encourage more people to opt for frozen fish, which could reduce demand for fresh fish in grocery stores, and limit the amount that is lost in retail and people's homes.

Thilsted suggests diversifying our appetites beyond the ubiquitous fish fillet to smaller fish and bivalves, which can be consumed whole to reduce waste. "If our notion of 'fish' is a fillet on a pan, then we are already far down the path of loss and waste, because we have reduced the edible part to such a small portion of the whole."

Existing fish byproducts can be captured and turned into new ones. Fish heads, fins, and bones from the fishing industry are already a source of fertiliser and feed; now innovators are finding uses for everything from fish skin for burn treatments, and crustacean waste to make biodegradable packaging.

"The idea of full utilisation is something that needs to be pervasive across all food supply chains" says Pearson, who cautions, however, that we shouldn't overstate

these solutions. Unless fish byproducts replace a share of fish demand, they are simply making use of waste – not reducing it at source.

Ultimately, prevention is the best solution, starting at sea, where this problem begins, Pearson says. Fishers need to be equipped with more selective gear for fishing, and aided by policies that discourage discards. Sumaila underscores the need for “good subsidies” that can be channelled towards fisheries that help replenish wild stocks: “We need to spend taxpayers’ money in ways that reinforce positive feedback from people to nature, and nature to people,” he says.

For generations we’ve believed “the ocean is huge, and we can just take whatever we want,” says Pearson. “Now we’re coming to see the limits of that. And when you have limits, it requires you to become more efficient.”

### **6.1.1 Exercises for Students**

Read the article “Millions of tonnes of Dead animals: the Growing Scandal of Fish Waste” and fulfill the following tasks:

- What are the main reasons for the fish waste? Describe each reason in a few words!
- What negative side effects are caused by the fish waste?
- What are possible solutions to reduce the waste?
- Internet research: What labels for sustainable fishing harvest exist?
- Reflect: What kind of fish do you eat? Do you know where the fish comes from or how it has been fished? Do you pay attention to labels when buying fish?

### **6.1.2 Exercises for Teachers**

- Reflect:
  - o What kind of fish do you eat?
  - o Do you know where the fish comes from or how it has been fished?
  - o Do you pay attention to labels when buying fish?
  - o How much do you know about aquaculture systems?
- Research:

- How far travels a fish until it lands on your plate?
- Compare the environmental balance of wild fish and aquaculture systems.

### 6.1.3 Guides and Counsellors/NGOs for Sustainable Behavior

- The European Commission: Environment (europa.eu)
- Global Footprint Network: calculate your footprint, earth overshoot day, various data, educational resources,.. Ecological Footprint Calculator
- The Guardian: 50 simple ways to make your life greener | Environment | The Guardian
- Green Journal: Green Journal | News about Renewable Energy and Sustainability
- WWF: Sustainability: Sustainability | Topics | WWF (worldwildlife.org)
- The Austrian Ecolabel: Welcome to the „Green World “ of the Austrian Ecolabel ← Home ← Umweltzeichen.at
- Bewusstkaufen.at: List of various national and international labels (only available in German): Label-Kompass — Gütezeichen für nachhaltige Produkte (bewusstkaufen.at)

### 6.2 Newspaper Article: “Revolutionary in a quiet way: the rise of community gardens in the UK”, by Anna Turns.



Published Tue 21 Sep 2021 by The Guardian, accessible at: <https://www.theguardian.com/environment/2021/sep/21/revolutionary-in-a-quiet-way-golden-hills-community-garden-in-bristol>

Figure 21. Lucy Mitchell, a community project worker with the Golden Hill community garden, in Horfield, Bristol. Photograph: Adrian Sherratt/The Guardian



Royal Horticultural Society sets up first Community Awards as community gardens become more common: “The first melon of the season always tastes amazing,” says Lucy Mitchell. “I don’t think anyone has ever taken one home – every year, we just cut them into as many slices as there are people in the garden and make sure everyone gets a melon moment.”

After almost a decade of being involved with the Golden Hill community garden in Horfield, Bristol, she never gets complacent about the significance of these simple things. “We remember ‘Big Jim’, the biggest sunflower who ever grew here, or the miracle sunflowers that grew in the gravel and we wait for the frogs to return to the pond. These things all layer into our story and we look forward to them.”

Community gardens are becoming ever more common across the UK, and at the end of September, the Royal Horticultural Society will announce the winners of its first Community Awards.

“Where groups like this existed, communities seemed to be more resilient when it came to a crisis [like Covid] because they had a pre-established network of volunteers and people already knew each other so they could easily offer support,” says Kay Clark, who heads up the RHS community gardening programme. “With well-being and nature connection becoming top priority during lockdown, we had this massive surge of interest in gardening and the community groups were there to help people learn how to garden, teach skills, share knowledge, plants, tools and all sorts as well as inspire people and cheer them up.”



Figure 22. Gardeners chatting at the Golden Hill community garden in Bristol Photograph: Adrian Sherratt/Alamy.

Because so many community gardens spring up at such a grassroots level – you just need the landowner's permission and a small group of willing helpers – it's hard to gauge exact numbers, but anecdotally, Clark has seen a big uplift in volunteer numbers coming to existing groups over the past 18 months. The RHS will be focusing on supporting new groups with resources and training in the near future in response to growing demand. Some gardens can be run on a shoestring, too, and she advises to start small: "Gardeners are often naturally thrifty – by growing plants from seed and minimizing waste, costs can be kept right down. It doesn't have to be Grand Designs."

Mitchell is the only paid member of staff at Golden Hill, a 2000m<sup>2</sup> sanctuary tucked away between a prison and a primary school. Over the course of three years, from 2011 to 2013, an £88k grant from the national lottery's local food fund helped transform a boggy site into a multi-functional, wheelchair-accessible garden that is now home to a big pond, two polytunnels, raised beds for growing veg and an edible forest.

The plan was always to become financially viable and self-sustaining and in 2015 Golden Hill registered as a community-interest company, a type of social enterprise. Pilot projects are funded by small fundraising events and occasional grants but day-to-day running is supported by a combination of modest monthly donations from Friends of Golden Hill, and revenue from the educational programmes that they run year-round.



Figure 23. Children pond dipping at the Golden Hill community garden in Bristol. Photograph: Adrian Sherratt/Alamy.

“When we began, we had no idea it would become so child-oriented – it has evolved into what it is today,” says Mitchell who holds weekly toddler groups (which are as much for the parents for the little ones), afterschool clubs for approximately 70 children every week during term time and holiday adventure days for the local primary children and their families. “Giving people’s children an amazing experience in the garden is a much more feasible income for us than selling our produce. All the organic veg and flowers we grow go to our 25 or so volunteers – as soon as you have freshly grown flowers on the kitchen table, your quality of life goes up.”

A sense of fascination runs through Golden Hill, but it is not always guaranteed. When Mitchell takes children into the garden, she never quite knows what their reaction will be: “Sometimes their minds will be blown by something that’s absolutely random, like picking gooseberries, another time kids will just shrug their shoulders and be absolutely nonplussed.” At the moment, the sea buckthorn that is in fruit has really captured their imagination – despite it tasting ‘tart like Haribo sours’ they devour them like sweet berries, Mitchell says.

For the children at Golden Hill, gardening club offers a space in nature where they can be free from organised activities. Mitchell says a lot of them just want to spend the time running round and not being told what to do, so nothing is too prescribed. “When we got to picking potatoes this year, just one person wanted to have a go but by the time we started harvesting, everyone wanted to get involved – I don’t think any city folk can ever not find digging up potatoes wildly exciting because it’s like finding buried treasure, no one’s ever too cool for that.”

She has noticed an increase in phone calls from people asking advice about how to set up their own community garden: “There’s so much potential for growth – every area could have a community garden, I don’t think you could ever reach saturation point.”

Above all, it’s open to everyone, without judgment. “Community gardens are something that nobody is priced out of – anyone can come to this organic garden, pick up a watering can and get involved. You don’t need to buy a

bamboo toothbrush or an electric car.” For Mitchell, it feels “revolutionary in a quiet, non-commercial and fairly radical way”.



To find a community garden group near you, visit <https://www.rhs.org.uk/get-involved/find-a-group>

Figure 24. The Golden Hill community garden in Bristol. Photograph: Adrian Sherratt/Alamy.

### 6.2.1 Exercises for Students

Read the text and do the following tasks:

- What sustainable contribution can you make with a project like this?
- How can you design such a project in your place of residence? Create a poster for a similar fictional project.
- What are the advantages and disadvantages of such a joint project? Identify three advantages and three disadvantages - write them on a poster.

### 6.2.2 Exercises for Teachers

- Reflect:
  - o How can you get students excited about a project like this?
  - o Have you ever encountered such a project? Would it be a project to show off to the students? (field trip)
  - o Do you have your own garden? What are your garden values? What is this used for?
  - o If you don't have your own garden, how can you bring people even closer to nature and its protection?



- Research:
  - o How can your own fruit and vegetable garden embark on sustainability?
  - o What additional positive effects do plants and animals have on people?

### **6.2.3 Guides and counsellors/NGOs for Sustainable Behavior:**

- The European Commission: Environment ([europa.eu](http://europa.eu))
- Global Footprint Network: calculate your footprint, earth overshoot day, various data, educational resources,.. Ecological Footprint Calculator
- The Guardian: 50 simple ways to make your life greener | Environment | The Guardian
- Green Journal: Green Journal | News about Renewable Energy and Sustainability
- WWF: Sustainability: Sustainability | Topics | WWF ([worldwildlife.org](http://worldwildlife.org))
- The Austrian Ecolabel: Welcome to the „Green World “ of the Austrian Ecolabel ← Home ← [Umweltzeichen.at](http://Umweltzeichen.at)
- Bewusstkaufen.at: List of various national and international labels (only available in German): Label-Kompass — Gütezeichen für nachhaltige Produkte ([bewusstkaufen.at](http://bewusstkaufen.at))

## **7. Didactic training for Education for Sustainable Development (ESD) in Education**

### **Structure**

1. How to Create a Positive Setting for Learning About Sustainable Development
  1. What can be done?
  2. Why use non-conventional Learning?
2. Enable Critical Thinking Ability of Students
3. Reflection on Different Styles of Learning
  1. Problem-Based Learning
  2. Active Learning
  3. Extracurricular and Methodological Diversity
4. Learning Types
5. Brainstorming Exercise
6. A Set of Topics for Classes on Sustainable Education
7. Possibilities for Action
8. NGOs that can help you Learn more
9. References

### **7.1 How to Create a Positive Setting for Learning about Sustainable Development**

The concept of sustainable development was first defined in 1987 in the report of the World Commission for Environment and Development entitled Our common future. The document stated it as a term denoting the social and economic development of modern societies, consisting in meeting their needs in such a way as not to reduce the possibility of meeting the needs of future generations. It assumes a parallel development of the economy, society.

According to Waldemar Affelt in Polish Encyclopedia PWN, the implementation of the idea of sustainable development requires:

- 1) Global protection of the natural environment;
- 2) Solidarity in relations between different countries, especially between the rich and the poor, and solidarity with future generations;
- 3) Treating economic, political, social and environmental factors as interdependent.

Education for sustainable development is about building people's awareness of how they relate to their environment and how they affect them. It also presents means that can be used to live a more sustainable life and actions that can be taken to achieve the Sustainable Development Goals.

Studies of sustainable development should motivate society by paying attention to specific content and learning outcomes and by combining them. It allows people to realize the need for sustainable development and make informed decisions about how their actions affect the environment, economy and society, reminding us of the need for respect and tolerance. Doing so helps in bringing up a more favorable world for present and future generations.

Learning about sustainable development makes a significant contribution to the development of new skills, tools and concepts that are used to tackle unsustainable practices. Moreover, it helps with building resistance to various social problems. Learning also helps in all aspects of daily life by offering skills which can support a person in becoming more confident, more competitive, and even strengthen relationships, as well as developing conflict management skills inseparable from the relationship between people and their environment.

Responsible teachers know very well that creating the right conditions is necessary to support students in their learning and development. A positive classroom environment is extremely important. Teachers should set up caring, supportive, safe, yet academically challenging and solid classrooms to help build and strengthen a positive learning environment. It helps to increase attention, reduce anxiety, and support the emotional development and proper behavior of students.

By fostering a positive learning culture, teachers keep students more motivated, leading to great school performance.

However, a positive learning environment does not just arise - it has to be established, mainly by the teacher.

### **7.1.1 What can be done?**

There is no model of an ideal learning environment. Each lesson you teach is unique and involves a community of people of different identities, backgrounds and experiences. A number of strategies can help create a friendly, inclusive classroom climate that responds to their needs.

From the outset, a positive tone is essential through an appropriate curriculum, community-building activities, warm behavior and constructive information concerning student achievements.

Promote open discourse and communication through classroom agreements, productive resolution of complex problems and conflicts, and regular collection of student feedback.

An inclusive environment should be created through the use of diverse and representative training materials. A variety of teaching methods using the latest technology should be considered with different options for assignments and participation.

Classes should be organized to support learners by clearly setting out your goals, rationale and expectations for the course and assignments, ensuring the availability of materials, and providing resources to support learner well-being.

You should take proper care of your health, both mentally and physically. Positive thinking is considered to be a key element in creating appropriate teaching conditions.

It is the responsibility of all educators to help promote the values of sustainable development in a way that stimulates active, responsible and engaged citizen participation in the school, home and community, at national or international level. We have to follow the principles such as

- educating citizens who are responsible and actively participate in the life of the surrounding community with respect, friendship and affection;
- encouraging a democratic attitude in everyday decision-making;
- developing an environmental awareness
- promoting interculturalism based on respect for the values and customs of all cultures;

The success of sustainable development depends, among other things, on the proper learning process. To create the right conditions, UNESCO supports specific and unconventional learning environment to promote knowledge on matters related to sustainable development outside formal settings.

### 7.1.2 Why use non-conventional learning?

Non-conventional learning or non-classroom-based learning environments, with its informal approaches, focuses on

- the role of teachers, that has been changed from “instructor” to “moderator”
- discussion as an exchange of logical arguments, with the possibility of adapting different kinds of answers, outside of a “yes-no” context.
- gaining insights and developing competences in a wide range
- the ability to use information in a flexible manner and the ability to discuss based on scientific experiments , not constrained by school curricula.
- practical contexts for applying the gained knowledge and skills in participants real lives
- cooperative games, stories, interactive workshops and outdoor activities

There are various types of non-conventional learning environments from a sustainable development context, the most effective and most widely used are:

- lifelong learning,

Lifelong learning is ahead of and well beyond the school phase, enabling people to learn continuously and adapt their knowledge accordingly. This is

especially true in developing countries, where students spend significantly less time at school than their counterparts in the industrialized world.

- transformative learning

The learners can adjust their thinking based on new information, critical reflection and review can lead to a change in our understanding of all aspects of our lives in economic aspects, social matters and environmental affairs (Ouane A, 2011).

- indigenous knowledge based learning

The way of learning that is based on traditional knowledge, skills and practices of learners and their community.

- experience- based learning

Kolb's Experiential Learning Theory (Kolb, 1984) defines this type of learning as "the process whereby knowledge is created through the transformation of experience."

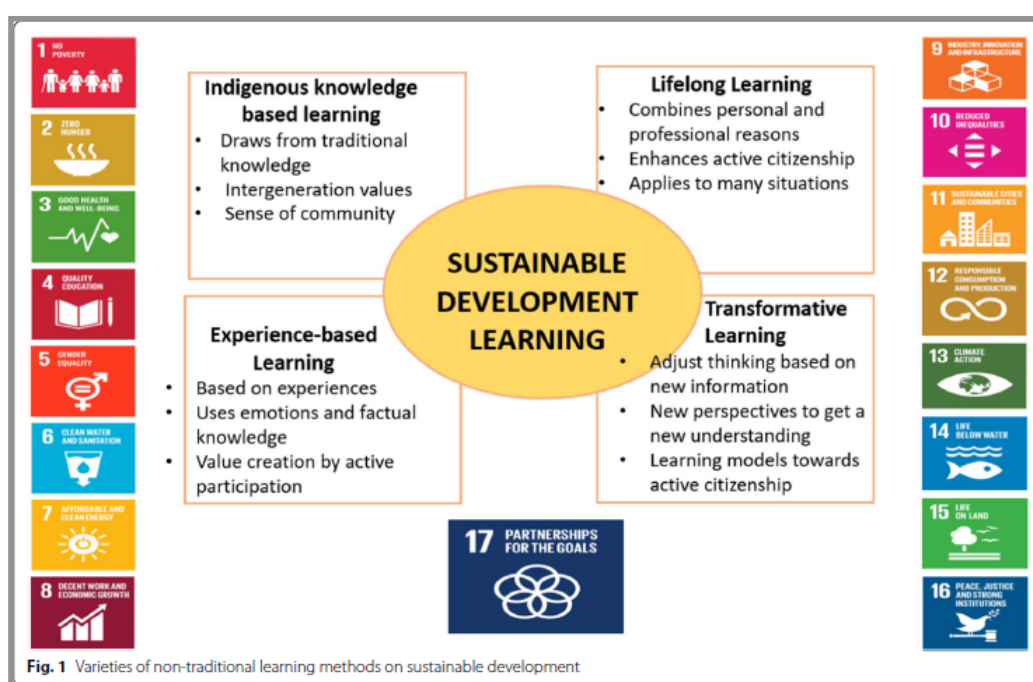


Figure 25. Varieties of non-traditional Learning Methods for Sustainable Development.

## 7.2 Enable Critical Thinking Ability of Students

Critical thinking can be defined as the ability to think independently, clearly and rationally. It includes the ability to reflect on an idea or problem, apply reason, and

create logical connections between ideas. Critical thinker is an active learner rather than a passive recipient of information.

The image below presents the steps of the critical thinking process.

- Understand the links between ideas.
- Determine the importance and relevance of arguments and ideas.
- Recognise, build and appraise arguments.
- Identify inconsistencies and errors in reasoning.
- Approach problems in a consistent and systematic way.
- Reflect on the justification of their own assumptions, beliefs and values.

Figure 26. Steps of the Critical Thinking Process., available at: <https://medium.com/@shahbaz.jaffri/what-is-critical-thinking-f0269d1e6f53>

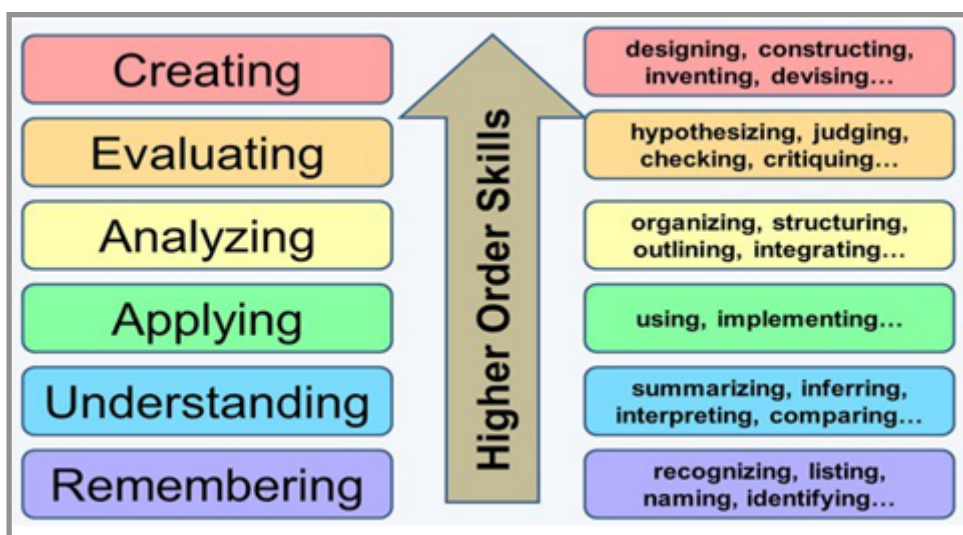


Figure 27. Skill Development.

**Remembering and understanding** begins the process by recognising the problem and thinking about the topic.

**Applying** can be defined as interpretation or reflection on the different arguments relating to an issue.

**Analyzing** means analyzing the subject objectively and critically considering the implications there might be behind a statement or argument.

**Evaluating** is checking how strong and important different points of view are, including identifying any weaknesses or negative aspects of the evidence or argument.

**Creating** that means problem solving and decision making – giving structured reasoning and support the final decision.

### **Why critical thinking is important**

We use critical thinking skills not only to gain knowledge, but above all to solve problems on a daily basis and understand the impact of made decisions, which allows us to make wise, rational, and not reactive decisions. These skills will prepare young people to solve complex world problems, such as the need to use resources wisely.

It has been proven that the ability to think critically is one of the most valued qualities that employers look for in job applicants. They want employees who can solve problems, make decisions, and take appropriate action.

### **What to do to learn critical thinking**

Critical thinking is closely related to well-being and longevity and allows life events to be predicted more strongly than intelligence. Unlike intelligence, it can be taught and students can learn the skills to think through problems and make wise decisions

1. First, determine what you want to achieve - then why you need to think critically, then you must discipline yourself to follow the lead, unless changing circumstances cause you to go back to the beginning of the decision-making process,
2. You need to become aware of how your personal preferences and prejudices can influence your thinking.
3. Prediction is extremely important - our decisions will certainly be better and their success is more likely if, after reaching initial conclusions, we stop and consider their influence on people and activities around us.



4. Reflecting on the consequences of our choices can reveal potential pitfalls and save us from the consequences of unwise decisions.
5. Practice and be patient - like all others, the ability to develop critical thinking takes time and effort.

Our schools are committed to educating a generation of leaders who reflect deeply on issues affecting their world and make wise decisions based on the principles of sustainable development.

### **7.3 Reflection on Different Styles of Learning**

The process of natural education should satisfy two important human needs which are closely related to each other. One of them is the desire of getting to know the world, to gain knowledge about it, the other - the pursuit of shaping oneself, developing one's own mind, in order to get to know the world better and to use one's own reason more fully (W. Okoń, 1987).

Natural learning consists in activating the learner's own cognitive abilities:

1. perception of things and events surrounding them,
2. observing them when imaginative processes come to the fore,
3. abstract thinking when, by generalizing the results of observations, we break away from the things and events themselves,
4. creating or processing things and events when practical ("technical") thinking occurs and is followed by action.

According to A.B. Dobrowolski (1958): „The basis of true mental activity is the development of mental abilities and independence in thinking, which neither children nor adults can acquire through one-sided learning of ready-made messages. Hence, the methods of learning must not include only those that appeal to reproductive thinking, attention and memory.”

Apart from them, there are also necessary methods that force the student to learn about reality directly, to independently solve theoretical problems.

Therefore the process of learning has to include problem-based learning, active learning and extracurricular and methodological diversity.

### 7.3.1 Problem-Based Learning

It consists of the emergence of problem situations, the independent search by students of ideas for solving them, and checking the accuracy (truthfulness) of these ideas. The principal features are:

1. Students get new information by solving theoretical and practical problems.
2. Solving the problem, the student overcomes all obstacles; their activity and independence reach a high level here.
3. The pace of learning depends on the student or group of students. Weaker students benefit from working with the group.
4. Higher activity of students is conducive to the development of positive motivations.
5. The learning outcomes are relatively high and sustained. It is easier for students to apply the news to new situations while developing their mental and creative skills.

### 7.3.2 Active learning

Michael Prince explains, "Active learning is generally defined as any instructional method that engages students in the learning process. In short, active learning requires students to do meaningful learning activities and think about what they are doing" (Prince 2004). The principal features are:

1. Students become more involved in their learning experience and more collaborative, productive, and creative.
2. By integrating technology-related activities and programs in teachers' curriculum, students can develop skills in IT, machine learning, and simulation modeling during their daily lessons. They expand innovative skills through technology.
3. Students acquire the art of communicating in a group and consciously participating in social life. The group is integrated during joint work and play.

### 7.3.3 Extracurricular and Methodological Diversity

Recent studies indicate that participation in extracurricular activities is an aspect of increasing students' sense of commitment or attachment to their school, and thus reducing the likelihood of school failure and dropout (Lamborn 1992; Finn 1993).

Apply multiple strategies that appeal to different skills and preferences: lecture, whole group and small group discussion, thought sharing, classroom writing exercises, case studies, role-playing, games, technology tools, and more. And don't limit yourself to conventional "texts" - movies and videos, podcasts and guest lectures are engaging ways to present your content. The classes mainly concern such areas as:

- Arts
- Faith/Cultural
- Political
- Sport/Physical
- Volunteering
- Other Caring/Domestic

When talking about methodological diversity, we can classify learning styles in other ways.

#### Exercise

Complete the seven sentences on the right based on your own learning styles. It will allow you to identify your style of learning. (The same exercise can be conducted with students in your class to know more about them as learners and plan teaching learning accordingly).

**Looking at Yourself as a Learner**

Complete these sentences individually

- I learn slowly when .....
- I learn quickly when .....
- I find leaning easy when .....
- Learning from textbooks is .....
- Learning in groups is .....
- I learn well from someone who.....
- I enjoy learning when .....

## 7.4 Learning Types

When it comes to being active in the field of education, it may turn out that we choose specific ways of understanding information. When you ask yourself what is your best style of learning, insights can help you be successful in education.

### Visual Learners

Visual learners learn best when their relationships and ideas can be visualized. Materials such as maps, diagrams, charts, and even printed texts work well for visual learners. When instructors illustrate or present diagrams of their lectures on the board, visual learners may find that they remember the information much better.

### Auditory Learners

All auditory learners usually prefer to listen to information rather than to read or view it displayed.. It happens that audiences speak and read slowly. They tend to think linearly and often repeat out loud the things they hear. When it comes to learning, an auditory learner can best remember material when talking to someone else about it, as it will be easier to recall the conversation than visually seeing the words on the page. Visually learners prefer lectures and live shows or movies on demand.

### Kinesthetic Learners

Kinesthetic learners are the most practical type of learning. They learn best by doing, and may be anxious if forced to sit for long periods. Kinesthetic students do best when they can participate in class or solve problems in a practical way. Being active sometimes, even physical involvement (tossing a ball, knitting) will help them retain information better. They tend to remember things they do best.

### Reading & Writing Learners

People learning by reading and writing feel extra enjoyable with the written word. They prefer to absorb information by reading texts, and can further assimilate

information by condensing and reformulating it. The traditional school textbook and note-taking process works well with this style of learning.

Identifying your style you can have more control of your learning. However, let's not try to align all education with one learning style and think about all the different methods you can try in process of the education.

- revise for tests using flashcards.
- create lists or flowcharts.
- practice team work to discuss ideas with other students.
- copy lectures, record them to be listened to later.
- have presentation slides printed to review.
- present written ideas in your own words.
- transform visual information into statements.
- read printed information out loud to yourself.
- walk around while reviewing your notes.
- verbally review material with someone while bouncing a basketball.

Experiencing any of the above techniques may change the study habits. They can be improved. using techniques from all of the styles as appropriate depending on the class, topic or subject. Offering materials in different formats engaged more students and achieved better results. Involving more of your senses, and even repetition itself certainly makes a difference. In this way, learning styles can still have a real impact on our studying experience.

## 7.5 Brainstorming Exercise

### What can we do:

1. Brainstorming
2. Reading activities that are followed by a class discussion
3. Watching a short video or several video clips and discuss themes or issues in small or large groups

4. Fishbowl activity (i.e. some students sitting in a circle ask questions, present opinions, and share information, while other students outside the circle listen carefully to the ideas presented and pay attention to the process. The reverse the roles.)
5. Short, ungraded quizzes to check students' comprehension of the material
6. Self-reflection individually or in small groups
7. Answering questions by using KAHOOT, Google Forms, or other technology tools, to check student understanding
8. Small groups work cooperatively on a task (e.g. do a jigsaw activity)
9. Role-play exercises or simulations
10. Real-world problems or situations (e.g. identify issues/problems in a home town, proposing possible solutions. Then work with the community to improve the situations or solve the problems)
11. Reflective dialogue and activities using forum theatre and similar methods

There are some tips for teachers for building positive relationships during exercising:

- try to create individual way to communicate with each other, start with icebreakers, then use modern technologies, various creative strategies and a lot of humor - it will draw students' attention,
- important information should be made as accessible as possible, e.g by posting it to online platforms,
- develop a positive relationship with students starting with getting to know their interests or advantages and disadvantages,
- introduce topics and help open discussions, then allow students to steer the conversation; teachers can get to know a lot about their students just by listening.
- stay open to questions, invite students to express themselves
- allow students to share their feelings and encourage them to listen to each other, compliment each other, express gratitude and solve problems together

- instead of concentrating on what your students are doing wrong and rebuking them - a form of negative empowerment that can inadvertently promote action - praise your students for what they do well

### **Come up with topics and activities that your students can be excited about!**

Projects are an increasingly popular way to engage and motivate students. They are also a fun way to stimulate the creativity of students and promote teamwork. There are many meaningful topics to be used.

## **7.6 A Set of Topics for Classes on Sustainable Development**

1. Biodiversity
2. Citizenship
3. Climate change
4. Cultural diversity
5. Democracy
6. Environment
7. Ethics
8. Food – waste less
9. Gender equality
10. Health promotion
11. HIV and AIDS
12. Intercultural understanding
13. Justice
14. Natural resource management
15. Overcoming poverty
16. Peace, human rights and security
17. Responsibility in local and global contexts
18. Rural development
19. Sustainable production and consumption
20. Sustainable urbanization
21. Water

## 7.7 Possibilities for Action

1. Collecting plastic bottle tops
2. Collecting used batteries
3. Development of the organization's own materials, for instance material boxes and brochures outlining examples of good practice
4. Establishment of a garden in the school
5. Information campaigns for the community
6. Interactive exhibition,
7. National day care competitions
8. Partnership activities, for instance hands-on involvement of NGOs
9. Public discussions, for instance on partnerships between NGOs and companies
10. Recycling ink cartridges, toners and mobile telephones
11. Reduction of the volume/flow of water in bathrooms
12. Visiting farms or forests

## 7.8 NGOs that can Help You Learn More

Sustainable nongovernmental organizations (NGOs) make essential contributions to the environment, society and the sustainability of the world at large. They are responsible for important research, aid, consumer awareness, conservation and so much more, and it is important to be aware of the most influential organizations working in sustainability today. These NGOs often offer valuable resources to students, including research, hands-on internships and volunteer opportunities. The list presents 16 of the most influential sustainability NGOs.

1. **CERES:** CERES promotes sustainable business practices and solutions by working with more than 80 companies, from auto companies to financial services providers (a third are Fortune 500 firms), as well as 130 member organizations. In 2003, Ceres launched the Investor Network on Climate Risk (INCR), which has grown to include 100 leading investors collectively managing more than \$11 trillion in assets. Main fields of CERES are



advancing climate solutions, protecting global water resources, building a just and inclusive economy and accelerating sustainable capital markets.

2. **Conservation International (CI):** CI works with scientists, local communities and practitioners in the field to protect nature, global biodiversity and human communities. It strives to protect natural wealth, promote sustainable business and foster effective governance. CI has supported the creation, expansion and improved management of nearly 50 million acres of marine and terrestrial protected areas, and its data collection has led to the discovery of more than 1,400 species new to science.
3. **Doctors Without Borders:** Doctors Without Borders provides emergency medical aid to people affected by conflict, epidemics, disasters or exclusion from health care. Since 1971, the organization has treated tens of millions of people in over 80 countries. In 1999, it received the Nobel Peace Prize.
4. **Food and Water Watch:** Food and Water Watch works to make food, fish and water safe, accessible and sustainable. They have raised consumer awareness of the environmental and economic costs of bottled water, and have helped dozens of communities fight the privatization of public water supplies.
5. **Global Footprint Network:** Global Footprint Network was founded in 2003 and is an independent think tank established as a charitable not-for-profit organization. Its aim is to develop and promote tools for advancing sustainability, including the ecological footprint and biocapacity, which measure the amount of resources we use and how much we have. These tools aim at bringing ecological limits to the center of decision-making.
6. **Greenpeace:** Greenpeace, founded in 1971, is the largest nonviolent, direct action environmental organization in the world with 2.8 million members. Greenpeace's work focuses on climate change, oceans, forests, toxics, nuclear energy and sustainable agriculture.
7. **Heifer International:** Heifer International has provided over 20.7 million families — that's 105.1 million men, women and children — with animals and training in sustainable agriculture so that they can feed and care for

themselves. Founded over 70 years ago , the organization focuses on ending hunger and poverty.

8. **The International Union for Conservation of Nature (IUCN):** It is involved in data gathering and analysis, research, field projects, advocacy and education. IUCN's mission is to "influence, encourage and assist societies throughout the world to conserve nature and to ensure that any use of natural resources is equitable and ecologically sustainable".
9. **Natural Resources Defense Council (NRDC):** NRDC's more than 350 lawyers, scientists and other professionals work with businesses, elected officials and community groups in the U.S. and internationally on issues including curbing global warming, clean energy, reviving the world's oceans, defending endangered wildlife and wild places, pollution prevention, ensuring safe and sufficient water and fostering sustainable communities.
10. **The Nature Conservancy (TNC):** Focused on conserving land and species around the world, TNC has protected more than 119 million acres of land and thousands of miles of rivers worldwide. It also operates more than 100 marine conservation projects worldwide.
11. **Ocean Conservancy:** Since 1972, the Ocean Conservancy has worked to protect the health and vitality of the world's oceans, including the species that call it home and the humans whose livelihoods depend upon them. Through its International Coastal Clean up program, the organization has removed 144,606,491 pounds of trash from the world's beaches over the last 25 years.
12. **Oxfam:** An international confederation of 17 organizations, Oxfam fights poverty and injustice in more than 90 countries. They work on interconnected issues like human rights, emergency response and sustainable development.
13. **Sierra Club:** Founded in 1892 by conservationist John Muir, the Sierra Club is one of the oldest and largest environmental organizations in the U.S. It has protected millions of acres of wilderness and has helped to pass key environmental legislation, including the Clean Air Act, the Clean Water Act

and the Endangered Species Act. It is also leading efforts to move away from the use of fossil fuels.

14. **Slow Food International:** As its name implies, Slow Food stands for the opposite of fast food: clean, fair and healthy food for all, regional traditions, gastronomic pleasure and a slow pace of life. Begun in Italy in the 1980s, Slow Food has members in 160 countries and promotes the principles of its Slow Food Manifesto through local and international events, its University of Gastronomic Sciences and more.
15. **World Resources Institute:** WRI works with leaders to turn information into action, with a focus on issues like climate change, energy, food, forests, water, cities and transportation, governance, business and finance. WRI has over 450 experts and staff working around the globe.
16. **World Wildlife Fund (WWF):** The WWF works in 100 countries to conserve nature and protect biodiversity. Founded in 1961, it's now supported by nearly 5 million members worldwide. World Wildlife Fund remains the most widely recognized NGO among experts for its contribution to sustainable development.

## 7.9 References

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