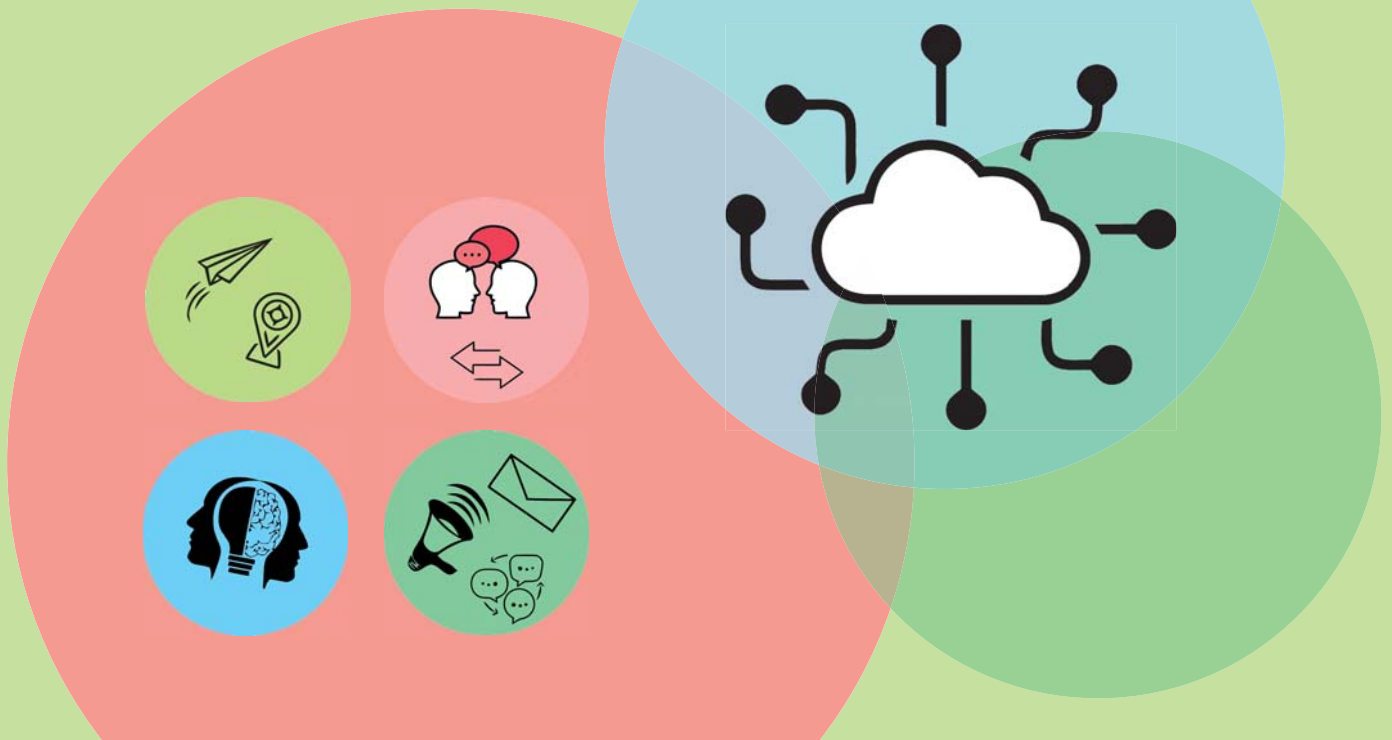




EDUCATION FOR SUSTAINABLE DEVELOPMENT

DEVELOPING SKILLS IN DEALING WITH UNCERTAINTY

Teaching and learning materials on the topic of
Fake News



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Contents

Introduction

Part I – Theoretical background to the project for teachers and extracurricular educational stakeholders

Current crisis complexity as a challenge for educational processes	A4
Dimensions of uncertainty in the context of sustainable development	A4
Dimensions of uncertainty: Dilemmas, trade-offs and risks	A5
Relevance of the biodiversity discourse as a topic	A6
Emotions and capacity to act in the context of ESD	A8
Shaping competence and learning objectives within the scope of the project	A10
Basic concepts:	
Konstanz Method of Dilemma Discussion (KMDD) and Values and Knowledge Education (VaKE)	A13
Didactic model and sequence of the study units	A14
The teacher's role	A16
Bibliography	A19
Quality declaration for digital ESD material	A24

Part II – Collection of materials

(with its own structure and table of contents)

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Introduction

Dear reader,

This manual was produced as part of project „ESD for 2030: Emotion and Problem-Focused Coping with Dilemmas, Trade-offs and Risks in Schools.“ This research project is funded by the German Federal Environmental Foundation (DBU) and is being implemented with the involvement of Institut Futur at the Free University of Berlin (FU Berlin), the FIELDS Institute and the German Society for Environmental Education (DGU). The project involved developing a model through which competencies in dealing with dimensions of uncertainty in sustainable development can be promoted in a school and extracurricular context. Pupils at stage 1 secondary school (years 5-12, age 10-16) are the main target group. The content focuses on the topic of biodiversity, as it is marked by contradictions, dilemmas and uncertainties.

When engaging with sustainability issues, pupils are often confronted with complex problems and interrelationships. Current research on the connection between knowledge and attitudes in the context of sustainability shows that: The more insights young people have into the problems of global development, the more likely they are to become hopeless and lose their motivation to act (Grund & Brock, 2019). Many young people find themselves surrounded by complex issues that can be overwhelming to deal with, preventing them from taking motivated, targeted action. This effect is already evident in everyday individual consumer decisions: organic or conventional farming? Nutella or a palm oil-free alternative? Once the complex interdependencies are considered, the problems quickly reach global dimensions. Many young people are aware of these interrelationships. A lack of knowledge of the problem does not appear to be the cause of becoming unmotivated and unable to act; rather, a collectively perceived sense of powerlessness sets in when it comes to shaping a sustainable world (Sanson et al., 2019). In addition, there is often the impression that the problems go beyond the potential of personal power and that an individual's own actions will make no difference in the complex structures. Based on these observations, it can be assumed that there is an increased need for educational opportunities that allow people to develop skills in dealing with over-complexity, contradiction and uncertainty. But what exactly does this skill entail? What enables young people to meet the challenges of our time in a purposeful way?

In order to find viable answers to these questions, the objectives of ESD were updated as part of the UNESCO World Conference. The Berlin Declaration calls on education stakeholders to pay more attention to learners' individual transformation processes, including cognitive and socio-emotional learning, community and political education (see UNESCO World Conference, 2021 Berlin Declaration).

The model presented here is therefore intended to support pupils in acquiring these competencies and to empower them in dealing with complex global challenges. The study units follow an experience-based approach in which pupils are introduced to specific problems through concrete situational examples. As part of this, knowledge-based research phases are combined with discussions and reflections on pupils' own attitudes and emotions. (For specific suggestions, see p. A17).

This manual is divided into an introductory theory section and a topic-specific collection of materials. The introductory section explains the theoretical background, learning objectives as well as the model's didactic structure. The collection of materials comprises working materials, didactic tips, information and optional add-ons which you can use to optimise the study unit for your group of learners.

Four additional manuals on other topics in the context of the biodiversity discourse, with which learners come into contact in their everyday lives, are available on the project website. The topics do not build on each other, rather they can be worked on independently.

We hope you manage to apply the model successfully using this manual, thus supporting your pupils in dealing with uncertainties in sustainable development.

Wishing you an enjoyable and constructive collaboration process!

Best wishes from the project team,

Prof. Dr. Gerhard de Haan, Susanne Waldow-Meier, Marie Nieberg, Hella Polze & Ilona Böttger

Current crisis complexity as a challenge for educational processes

Education for Sustainable Development (ESD) is increasingly beset by the challenge of addressing diverse and serious planetary crises, which can have a cognitively destabilising effect on learners and trigger strong emotions, stress and resistance (Singer-Brodowski et al., 2022). In the following topic sections, we explore contemporary challenges of ESD in the context of biodiversity, which are associated with contradictions, dilemmas and risks – in short, uncertainties. The relevance of emotions in educational processes for dealing with uncertainties is addressed (Grund & Singer-Brodowski, 2020).

This is followed by the question as to how educators in ESD can constructively support children and young people in dealing with these uncertainties. To this end, we present selected educational science models, which lead to application-oriented recommendations that may serve the „context-related and creative search for good solutions“ (Grunwald, 2023, p. 6, *translated citation*). The collection of materials which follows in Part II contains specific teaching and learning materials that can be used in everyday school and extracurricular activities.

Dimensions of uncertainty in the context of sustainable development

Sustainable development

The United Nations (2015) defines sustainable development as development that meets the needs of the present generation and enables growth without jeopardising the livelihoods of future generations. Nature conservation, sustainable economic growth and social justice are the three essential areas that must be taken into account and regarded as interdependent (*ibid.*). In terms of sustainable development, social justice, economic performance and ecological compatibility should be striven for (Schreiber, 2012), and coherence, synergy effects and cooperation between the dimensions should be brought about. The coherence principle means that the interrelationships between the dimensions are taken into account during decision-making and that the developments in the various areas are perceived as interdependent. No perspective should be left out. At the same time, however, tension prevails between the perspectives, caused by conflicts of interest and conflicting goals (Schreiber, 2020; Schreiber & Siege, 2016).

Contradictions and dilemmas arise and present not only political decision-makers with challenges – we too find ourselves in decision-making conflicts at an individual level. In addition, when making such decisions, the consequences of the various options can never be predicted with certainty. Uncertainty and risk are therefore a characteristic of sustainability-related decisions (Ernst, 2008; Grunwald, 2010). Dealing with contradictions, dilemmas and risks – in short, uncertainties – in a reflective and constructive manner is at the heart of the teaching strategy. The pupils' main focus is on dealing with conflicts in decision-making, not on the ability to precisely define concepts. Therefore, the theoretical delimitation of the dimensions of uncertainties mentioned here is only of secondary relevance for the project implementation.

At this point, you as the project manager are presented with defining background information on the dimensions of uncertainty.

Dimensions of uncertainty: Dilemmas, trade-offs and risks

Dilemmas

Mader (2023) describes dilemmas as „complex situations in which stakeholders have to choose between several poor alternatives and cannot change the conditions of the situation or rank the given alternatives“ (p. 18, *translated citation*). Consequently, dilemma situations are characterised by two (or more) unattractive possible solutions, one of which must be chosen. This requires that individuals prioritise their own premises for action and values (Lind, 2006). A dilemma cannot be defined objectively, rather it largely depends on the individual's subjective perception and the social context (Henkel et al., 2023; Lind, 2006). With regard to decisions around sustainability, dilemmas arise „due to the contradictory nature of relevant objectives, forms of knowledge involved, stakeholders encompassed, applicable time policies and normative orientations“ (Henkel et al., 2023, p. 18, *translated citation*).

Trade-offs

Trade-offs are usually discussed in connection with economic perspectives: Sustainable development – and biodiversity in particular – mainly comes under pressure due to economic goals and interests. A key feature of trade-offs is that stakeholders have to choose between alternatives that, although both desirable, cannot be realised at the same time. One trade-off that affects biodiversity, for example, is the trade-off between habitat conservation and the use of land for the expansion of renewable energy systems (Obrecht et al., 2021).

In the teaching material developed, the main topic in which this conflict is reflected is „Species conservation and wind power.“

When dealing with trade-offs, it is important to counter incompatibility with acceptance and to establish decision-making premises (de Haan & Grüßel, 2023). Contrary to other decision-making contexts, in trade-off decisions, optimising a particular state by choosing the best alternative is not a central component. In the context of trade-offs, there is no such thing as an optimal decision. Therefore, it is more about appraising a given course of action based on the extent to which it is legitimate and justifiable (de Haan et al., 2008). If one option can be deemed more legitimate than the other, the decision will likely be made in favour of this option.

Risks

Sustainable action is future-oriented and, due to its open-ended nature, associated with uncertainties and anticipated risks. It is in learning to deal with these exact risks that the study units provide pupils with support. In concrete terms, this ability means having the capacity to act despite uncertainties and anticipated dangers. However, the learning of such a competent manner of dealing with a risk or event is always influenced by an individual's subjective perception of it, and its personal significance to them (de Haan et al., 2008). Therefore, selected fundamentals of risk perception are presented here.

On the one hand, rational, analytical considerations lead to specific interrelationships being assessed as risks, while the risks in turn influence the consideration processes and decision-making in these interrelationships. On the other hand, our perception of risks is subject to the significant influence of emotional, affective factors (Epstein, 1994). Most of our daily decisions are made quickly and automatically based on emotional risk assessments (Douglas & Wildavsky, 1982; Slovic & Peters, 2006). Although this is often an unconscious process, it exerts a crucial influence on the motivation for certain decisions and behaviours (Baumeister et al., 2007; Damasio, 2020). This happens because emotions can be used to confer meaning on events: Emotions shape how events are perceived and how information is processed, and these processes are accompanied by affective stimulation.

The perception of risks is also influenced to a significant extent by social mediation (e.g. media) (Covello, 2001; Kasperson et al., 1988; Peak & Hove, 2017). This leads to additional characteristic influences in the assessment of risks (Earle, 2010; Slovic et al., 2000). For example, the increase in flooding as a risk of climate change became a focal point in the media when the July 2021 flood disaster occurred. Such an acute event leads to the risk being assessed as significantly higher than it actually is, due in part to the media presence. This points to a distortion of risk assessment: „When there is a loud crash, we look closely. Isolated, rare risks, especially those that are difficult to control, are generally overestimated, whereas gradual developments that can only be recognised through symptoms are underestimated and not noticed for a long time“ (Ernst, 2008, p. 49, *translated citation*). Risk perception alone is a complex process in which various generalisable and individual patterns come into play. This model does not aim to analyse the mechanisms for all pupils individually in detail. Nevertheless, questions that stimulate reflection should be asked, since dealing with risks and uncertainties in a constructive manner starts with reflecting on our own perceptions. The topic of palm oil, in particular, provides an opportunity for discussion in this regard.

Relevance of the biodiversity discourse as a topic

The term biodiversity refers to the diversity of all life on earth. This diversity is the result of natural evolutionary processes and is also increasingly subject to human influence. Biodiversity is often regarded as the diversity of species of all animals, plants and micro-organisms. However, this is only one aspect of biodiversity. Other core components of biodiversity include the genetic diversity within species and the resulting individuality of each living organism (Assmann et al., 2014). Another important aspect of biodiversity is the diversity of ecosystems in which living organisms are in constant interaction with each other and with their environment. All these components constitute a complex system of which we humans are a part. At the same time, we are dependent on many environmental services that can only be carried out when sufficient biodiversity is present (Secretariat of the CBD, 2000). In many respects, biodiversity is the prerequisite for processes that provide us with essential foundations of life. For example, a high level of biodiversity is of enormous importance for agriculture (Gerowitt, 2013). Over half of all crops are pollinated by insects, generating an estimated annual worldwide economic output of several billion euros (Lippert et al., 2021). Biodiversity also plays a major role in regulating the climate. An experiment on the productivity of forests showed that over twice as much CO₂ is stored by forests with 16 different tree species than by the monocultures studied (Huang et al., 2018). In addition to diversity in forests, diversity in meadows and soils also exerts a positive effect on the climate. This is mainly

due to microorganisms and fungi in the soil that break down plant and animal biomass, thereby binding carbon and nitrogen (Max Planck Society, 2021).

The environmental services of climate regulation and its role as a food source are two of the many tasks that the planet can only fulfil if sufficient biodiversity is in place. In the Millennium Ecosystem Assessment, a United Nations study on the status and development of ecosystems worldwide, the services provided by ecosystems for humans were divided into four categories (Millennium Ecosystem Assessment 2005, cited in KBU, 2019):

1. Supply services are used for the direct supply of raw materials, food, water, oil, wood and other resources.

2. Regulatory services serve humans indirectly, e.g. through the climate-regulating role of soils and forests, as carbon reservoirs or, by means of floodplains, as natural flood protection.

3. Cultural services relate to natural heritage, tourist and spiritual functions and educational aspects of ecosystems.

4. Basic services (support services) are services that make the ecosystem services of the other three categories possible in the first place. These include, for example, photosynthesis and soil formation processes.

It is not possible to explain the individual services and their dependence on unimpaired biodiversity. Nevertheless, it is clear that biodiversity forms the basis of many of these ecosystem services. If the functioning of important ecosystems is impaired or upset by land sealing, the overuse of natural resources, climate change, environmental pollution and other anthropogenic causes, many of these important services can no longer be guaranteed (Helmholtz-Zentrum für Umweltforschung [Helmholtz Centre for Environmental Research], 2018). This means that humans are also directly affected by the impacts of biodiversity loss.

The sustainable use of biodiversity is included as a goal in the 1992 United Nations Convention on Biological Diversity. In concrete terms, this means that the components of biological diversity should be used in a way that does not lead to the long-term decline of biological diversity and thereby maintains its potential to fulfil the needs and expectations of present and future generations (Secretariat of the CBD, 2000). Numerous risks and dilemmas arise in this context, as already described.

These are to be visualised and processed using various examples in the study units developed as part of this project.

Emotions and the capacity to act in the context of ESD

Human action – in the context of ESD also – can be regarded as the result of a coordinated interplay of perception, cognition and emotional judgement.

„The question as to how this interplay works and how emotions may be plausibly defined yields very diverse answers“ and is expressed in a plethora of around 90 definitions of emotions, Waldow-Meier observes (2022, p. 23, *translated citation*). For the scope of this handout, emotions are

considered to be phenomena that support human decision-making and thus enable us to deal with environmental stimuli and cope with situations (Ali & Tan, 2022). Siegel (2017) summarises it as follows: „[...] what we call ‚emotion‘ is a dynamic and central function that interconnects behaviour, meaning, thinking, perceiving, relating and remembering.“ (italics in original, p.267)

In a contemporary study (Hickman et al., 2021), 10,000 young people aged between 16 and 25 from ten countries around the world were asked about their emotions regarding the climate crisis. Most respondents stated that they were worried (59% extremely worried, 84% at least moderately worried). Over 50% cited sadness, fear, anger, powerlessness, helplessness and guilt. In addition, over 45% reported being affected by these negative emotions in everyday life. Conversely, fewer people are hopeful about the future. According to a 2017 study, only 19% of people in Germany declared themselves to be hopeful about climate change (Pidgeon et al., 2017). As emotions have a crucial influence on our actions (Pfister & Böhm, 2008), it is important that this topic be addressed in the context of education for sustainable development.

Emotions are often categorised as positive and negative. However, this polarising classification fails to do justice to their many facets and modes of action. For instance, an emotion may have different dimensions, whose modes of action cannot be clearly interpreted (Pfister & Böhm, 2008). In the context of motivation to act in transformative processes, one example is anger. Despite its conventionally negative connotation, it can motivate people to take action, which therefore has a positive effect. For this reason, we do not categorise emotions as either positive or negative here. Instead, in terms of the capacity to act in transformations leading to greater sustainability, it makes sense to consider which emotions have an inhibiting effect, and which have a motivating and therefore favourable effect.

Emotions that inhibit decision-making and action

A major obstacle to sustainable action is the feeling of being **overwhelmed**. This begins with cognitive overwhelm due to the enormous complexity of interrelationships (Grunwald, 2010). In addition, overwhelm may occur at the evaluation level, due to the lack of uniform evaluation criteria as well as potentially conflicting goals and criteria (Grunwald, 2010). However, overwhelm can also quickly arise at the action level. Above all, the difficulty of moving from individual to collective action must be overcome. This often goes hand-in-hand with a **low or lacking expectation of self-efficacy**, as the influence of individual action cannot be seen in the larger overall structure. Purposeful action may also be prevented by **resignation, frustration, guilt and shame** (Leuser & Weiss, 2020). One emotion that can strongly counteract change in general, and therefore in social transformation processes also, is **fear** (Berner, 2015). It can come up as fear of loss, or fear of being unable to cope with change and can cause people to avoid facing challenges (Nussbaum, 2019).

So how can educators and teachers empower young people at an emotional level, thereby providing important building blocks to form the bridge from knowledge to action?

Aspects that promote decision-making and action

To implement stimuli for action in a targeted manner and actually take action, people need to believe that they can actually shape the future in a sustainable manner. In this context, **hope** plays a central role as a motivator for action (Grund & Brock, 2019). The presence of hope makes

it easier to pursue goals and overcome hurdles (Kraft, 2022). However, this does not refer to a romanticised form of hope, rather to a form of hope that is reflected in reality and does not disregard real problems and hurdles, nevertheless develops strategies to achieve set goals (Ojala, 2016; Ojala et al., 2021; Waldow-Meier, 2022). This type of critical and constructive discussion should be encouraged through the model presented here. The aim is to avoid overwhelm and to pose challenges in such a way that they can be dealt with in an effective and independent manner. In addition, aspects that promote hope include the visualisation of inspiring examples, the initiation of a change in perspective on previous achievements and the creation or integration of authentic study locations and participatory study formats (Nussbaum, 2019). When discussing courses of action, care should be taken to ensure that these are in proportion to the challenge at hand. If they are inadequate, for example, only very low-threshold individual measures are discussed, which obviously do not represent a satisfactory solution; this can quickly lead to a cynical attitude.

A factor that is closely related to hope is **trust** in current and future possibilities (Kraft, 2022; Waldow-Meier, 2022). Trust is an important emotional factor, especially at the level of risks and uncertainties, because trust assumes that possibilities which, though as yet unknown, are attributed to the power and creativity of the collective and the self, will emerge at some point in the future (Waldow-Meier, 2022).

The ability to tolerate uncertainties, contradictions and ambiguities is also important in relation to sustainable development (OECD, 2020; Singer-Brodowski et al., 2022). As we are confronted with conflicting information and values on a daily basis, **tolerance of ambiguity** can be regarded as a prerequisite for orientation in our society and for shaping transformation processes successfully within it (OECD, 2020). In line with Lenz (2020), enabling learners to experience diversity (also with regard to different points of view and opinions) as the norm is important. In addition, argumentation, dialogue and debating skills are essential to resolve conflicts of interest in the democratic system and for the capacity to deal with ambiguous, uncertain situations. Lenz (2020) also mentions critical thinking, empathy, adopting a perspective and engaging with dilemmas as key aspects and areas of practice when it comes to developing the ability to tolerate ambiguity.

As mentioned above, it is precisely in the context of global challenges that the feeling that an individual's own actions make no difference can arise. The experience of **self-efficacy** can play a major role in breaking down barriers and establishing constructive coping strategies. The conviction of our own efficacy is defined as the individual's belief in their own capacity to cope with a certain challenge using their own abilities (Bandura, 1997). A distinction is made between individual and collective self-efficacy, whereby collective self-efficacy plays a decisive role in the context of sustainability (Hamann et al., 2016).

The role of **resilience** in the context of coping with global crises is in focus in a relatively new branch of research. In relation to the climate crisis, resilience has been defined as having the „psychological ability and resources to process stresses caused by the climate crisis in a healthy, cognitive, emotional, interpersonal and action-orientated way, and thus to harness them as an opportunity for development“ (Dohm & Klar, 2020, p. 106, *translated citation*). This definition can also be applied to other problems in the context of (un)sustainable development (Peter & Niessen, 2022). Just like climate change, biodiversity loss, which is at the centre of the project, is an element that has the potential to cause stress and trigger crises and therefore requires the development of

resilience. Resilience factors, i.e. protective factors that are useful to people in coping with crisis situations, have been identified in empirical studies. The resilience factors that are not determined by our genetic make-up but can be acquired are of particular interest for the study units. In relation to coping with stressful situations successfully, the following six competencies are particularly relevant (Rönnau-Böse, 2013):

- Self-perception and perception of self by others (realistic self-assessment)
- Expectation of self-efficacy
- Self-control (emotional regulation)
- Social skills (ability to cooperate and to deal with conflict)
- Problem-solving skills
- Adaptive coping skills (ability to apply skills in relevant situations).

As part of the project, pupils are to train their self-perception and perception of self by others in exchange and reflection phases with a view to promoting these resilience factors. In addition, self-efficacy expectations are to be elevated by means of various courses of action. In the context of sustainability, collective self-efficacy, i.e. being able to achieve something together, is particularly important. By engaging with value judgements and emotions, deepening aspects of knowledge and developing action strategies together, conflict management and cooperation skills can be developed and problem-solving skills acquired.

Shaping competence ("Gestaltungskompetenz") and learning objectives within the scope of the project

The **aim** of the project is to give pupils the opportunity to grapple with dimensions of uncertainty in the context of biodiversity so that they can learn to engage with them constructively, at both individual and collective levels. A didactic concept that specifically addresses selected aspects of the shaping competence ("Gestaltungskompetenz") model (de Haan, 2008) was developed for this purpose. This is the best-known competence model in ESD to date and has already been taken up in numerous framework curricula and international papers (Cebrián et al., 2020).

Shaping competence initially means the ability to „apply knowledge about sustainable development and recognise problems of unsustainable development“ (de Haan, 2008, p. 31, *translated citation*). It includes various sub-skills, which collectively constitute the ability to make decisions in terms of sustainable development processes and to implement them at individual and societal levels (ibid.). The following aspects are particularly relevant in the context of social transformation in dealing with biodiversity loss:

- Skill in dealing with incomplete and overly complex information: being able to recognise and weigh up risks, dangers and uncertainties
- Skill in overcoming individual decision-making dilemmas: being able to take conflicting goals into account when reflecting on action strategies
- Motivation skills: being able to motivate yourself and others to take action

The aspects which are relevant in the respective sub-skills and thus represent the specific

objectives of the study units are described below. The learning objectives are formulated based on the objectives described in the shaping competence model (de Haan, 2008) and to which new aspects are added.

Skill in dealing with incomplete and overly complex information: being able to recognise and weigh up risks, dangers and uncertainties

Cognitive analysis and judgement strategies have been cited in the shaping competence model under this sub-skill to date. However, since risks are analytically objectifiable as well as being social constructs (Douglas & Wildavsky, 1982) and their perception is heavily influenced by individual psychosocial factors (de Haan et al., 2008), skills that relate to the emotional, subjective level of dealing with risks and uncertainties also need to be acquired. Emotions influence not only our perception and evaluation of situations, but also our actions. If pupils want to learn how to deal with uncertainties and risks, they must become aware of their own emotions and learn to reflect on and harness them (ibid.). Risks are often embedded in complex causal networks that can trigger overwhelm and hopelessness. In this respect, pupils should be empowered in their ability to work towards a more sustainable world despite overwhelming complexity, contradictions and unpleasant emotions. In order to avoid resignation or paralysis due to fear and overwhelm, it is necessary to start by recognising risks and complexity, being aware of our own attitudes and associated feelings, as well as being able to tolerate contradictions and complexity. Therefore, in addition to dealing with risks at an analytical level, the ability to tolerate ambiguity should be promoted as the foundation of the capacity to act.

Accordingly, the following objectives for the study units can be derived from this sub-skill: The pupils ...

- are able to analyse and assess the risks and dangers of unsustainable actions,
- recognise the complexity of interrelationships,
- become aware of and reflect on their own emotions when dealing with risks, dangers and uncertainties,
- engage with the question of trustworthy sources and reflect on how they influence their thoughts and actions.

Skill in overcoming individual decision-making dilemmas: being able to take conflicting goals into account when reflecting on action strategies

This sub-skill relates to competing goals which, although they are often of equal value, trigger the dilemma of being able to achieve only one of them. Nevertheless, a decision has to be made. By addressing this target skill, detailed training should be provided on the ability to make decisions in dilemmatic situations with regard to sustainable development (de Haan, 2008). This initially includes pupils' ability to recognise and describe dilemmas and to position themselves in relation to them. Since the act of positioning oneself in the context of dilemmatic decision-making situations is always linked to the formation of value judgements, and value judgements have an inherent emotional component, judgement processes are always subject to emotional processes (Petri, 2018). Therefore, reflecting on our own attitudes and emotions also plays an important role in dealing with dilemmas in order to make decisions and develop approaches to action. In a

social-democratic context, we must be able to justify our own decisions and negotiate collective approaches to action democratically (ibid.; Eikel, 2006).

The following sub-goals can be formulated: The pupils ...

- are able to identify and describe social decision-making dilemmas in real-life contexts,
- describe ways of dealing with decision-making problems where different perceptions of the problem and/or competing sustainable development goals exist,
- develop strategies for sustainable action based on jointly implemented, transparent consideration processes,
- are capable of positioning themselves personally on a dilemma and reflecting on the arguments, attitudes and emotions that influence their decision,
- practice their discussion skills and come to a decision in co-operative exchange processes.

Motivation skills: being able to motivate yourself and others to take action

This skill is central, as the definition of shaping competence includes the dimension of the capacity to act, which in turn depends to a large extent on self-motivation and motivation from others. This is then largely determined by emotions: Motivation is positively influenced by hope for success and the prospect of positive feelings, as well as tolerance of ambiguity and trust (de Haan, 2008). These positive and empowering feelings are often absent in uncertain situations. This makes enabling pupils to reflect on their own emotions all the more important. The experience of self-efficacy is also linked to emotions and the capacity to act. Therefore, with regard to this sub-skill, the focus in this project is on the following goals:

The pupils ...

- experience self-efficacy in the development of action strategies,
- are able to describe and evaluate their personal way of dealing with dilemmas, uncertainties and open situations,
- describe their motivations for participating in democratic decision-making processes and sustainable action,
- describe their own and shared successful learning paths in the context of sustainability and show how these can be used for further learning.

In order to offer a viable study context for the learning objectives listed here, the following basic concepts were chosen as the foundation of the didactic model.

Basic concepts: Konstanz Method of Dilemma Discussion (KMDD) and Values and Knowledge Education (VaKE)

Konstanz Method of Dilemma Discussion (KMDD)

KMDD is a method from the field of moral and democratic psychology and is used to discuss ethical dilemmas. The aim is to enable learners to reflect on, discuss and deal with conflicts on the basis of universal moral principles (Lind, 2019a; Lind, 2019b). The aim is to develop the ability

to act by actively engaging with courses of action and their underlying moral values based on concrete situations.¹

The teacher's role is to create stimulating opportunities for learning and to be on hand to offer advice during the process (Lind, 2019; Schirmacher, 2012). „Therefore, rather than providing them with model solutions for every conceivable case, which, in this day and age, would be a hopeless endeavour, the aim is to develop a mindset regarding action that enables the learner, either independently or in collaboration with others, to find the fairest and most sustainable solution possible in a specific problem situation“ (Lind, 2006, p. 12, *translated citation*). KMDD is thus based on a constructivist morally didactic approach. Through confrontation with a task that is appropriate to the learner's developmental level and provides the right level of challenge, it stimulates the activation of mental processes that are necessary for dealing with moral conflicts (*ibid.*). In the Konstanz method, this task is an educational moral dilemma. A dilemma that it is semi-real, i.e. concerns a fictitious person, but can still arouse the readers' emotions, should be chosen. The processing of the dilemma follows a formula whose core elements are a spontaneous first vote, a subsequent discussion and, after the discussion, a second vote. This formula constitutes the basic structure of the following teaching and study materials (Part 2 of the manual).

Values and Knowledge Education (VaKE)

The second underlying concept is the values and knowledge education approach by Weyringer and Patry (2005). In this approach, knowledge content is addressed in combination with the reflection of value systems. They justify the relevance of their approach by arguing that knowledge alone cannot prepare learners to actively take on responsibility in society, rather this knowledge must be considered in a reflective, critical manner. The acquisition of knowledge must therefore be closely linked to a culture of debate, the ability to form opinions and participation (*ibid.*).

The method is based on constructivist principles in both the area of value education and the perspective of knowledge acquisition. Thus, study is seen as an active constructive process, not as a passive absorption of information. The quality and effectiveness of the learning process is closely linked to the degree to which the content is of personal significance to the learner; the question „What am I learning for?“ is therefore crucial (Keast & Marangio, 2015). The VaKE approach also takes up the idea that learning must be designed as an interactive process in order to enable reflection on the applicability and real meaning of what has been learned in dialogue. The teacher's role is to create situations that stimulate cognitive engagement with problems and to support learners in their learning process (Weyringer & Patry, 2005). As an important element in the process, Weyringer and Patry cite the joint creation of rules for dialogue and discussion, which are based on the principle of „companionship – not rivalry.“

¹ KMDD was conceptualised by Georg Lind based on Lawrence Kohlberg's insights into moral development. The method can be understood with the help of Kohlberg's definition of moral judgement as „the ability to make decisions and judgements that are moral, i.e. based on inner principles, and to act in accordance with these judgements“ (Kohlberg, 1964, p. 103, *translated citation*). Moral competence is therefore „a key competence for living together in a democratic society“ (Lind, 2019b, p. 108, *translated citation*).

This element is outlined at the beginning of the first block of each topic titled „Dialogue rules.“ Based on this, pupils can compile relevant information, weigh up arguments, reflect critically and, if necessary, revise their own opinion.

Didactic model and sequence of the study units

How can the model be used, how is it organised and how are the materials structured? As the material can be used flexibly, there are many ways in which it can be implemented. For example, it can be realised in a single project week, over the course of four double lessons in a related subject, in an extracurricular project or in another setting. Each study unit is divided into four 90-minute blocks. Within a defined framework, the pupils are given the opportunity to engage with the respective topic independently, following their personal interests and setting their own priorities. The content-related and self-reflective examination of the problems addressed constitute the core elements of the model. A dilemma situation is described within the context of an everyday scenario from the respective subject area. The pupils then deal with the dilemma situation. The aim is to develop an independent attitude with regard to possible courses of action in complex situations. This is done by looking at the dilemma more closely. In four blocks, individual positions are taken, in-depth research is carried out and arguments are discussed. By alternating between emotion and cognition, engagement with the situation is deepened and condensed (Fig. 1). The aim is always to develop the capacity to act in complex situations.

The materials consist of introductions, information sheets and worksheets (Fig. 2). For you as a teacher or instructor, the **introductions** are the core element of the material. They serve as a point of entry to familiarise yourself with the study units and offer suggestions on how the individual blocks can be structured.

The **information sheets** mainly serve as a source of information on various aspects of the material or topic. They provide an insight into background information and include visualisations to illustrate complex interrelationships or different positions. The individual blocks also comprise games and discussion rounds. These are described in greater detail in the information sheets with suggestions for game and method instructions. The information sheets also provide support for the discussion rounds in the form of scripts.

As a side note for you: The information sheets can be shared with pupils in some cases.

Notes are provided in the introduction in such cases.

The worksheets, in turn, are aimed at the pupils. They help pupils explore and consolidate their positions. They also help them to reflect on their own emotions and record the knowledge they have acquired. Worksheets that encourage action, such as instructions on how to make palm oil-free cosmetics, are also provided.

Depending on the time available and the desired depth of content and methodology, optional materials and methods can be incorporated or existing materials omitted when preparing the teaching units, which will increase or reduce the length of time required. Using the units in a flexible manner and/or with extensions is recommended, as the model enables learning in a variety of group compositions and dynamics.

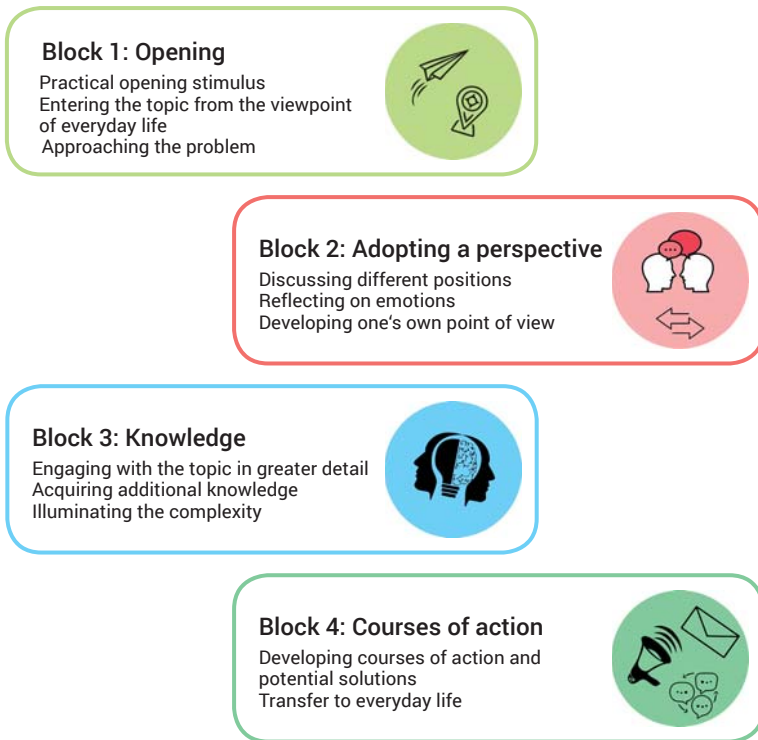


Fig. 1 The teaching model at a glance: This shows the sequence of the individual teaching units with the focal points of introducing the topic, research phase, positioning phase, development of courses of action. The topics are organised based on this model and are similar in structure, although the block sequence is structured differently in some cases.

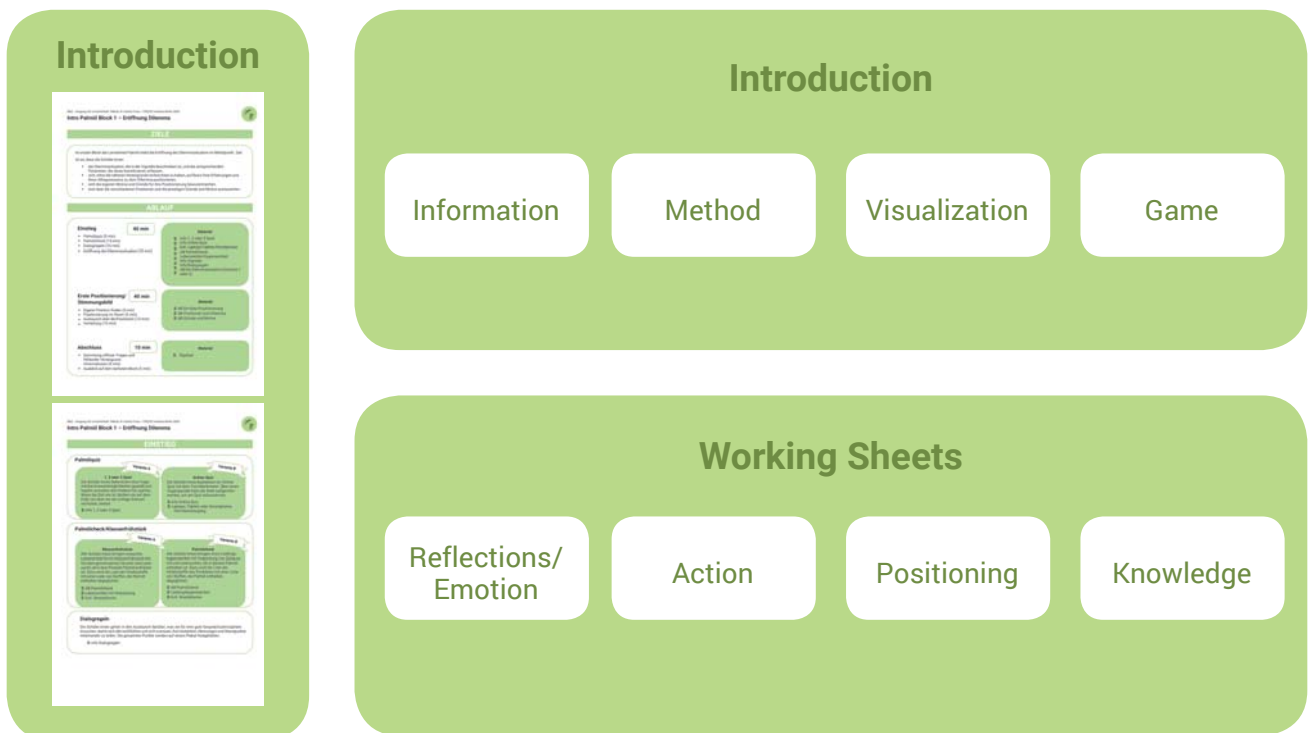


Fig. 2. The materials at a glance: As can be seen, the material is divided into introductions, information sheets, worksheets and their content components.

The teacher's role

This model is primarily concerned with providing children and young people with a space to explore their own options in the context of uncertainties and contradictions in sustainable development. De Haan (2008) describes ESD as being essentially an educational component that is orientated towards the ideas of inter- and intra-generational education. The intention of ESD is not to evaluate individual positions or to normatively redirect behaviours towards a type of behaviour which is supposedly „better“ or more sustainable. We would like to emphasise that this model is not intended to impose certain normative, sustainable value judgements on pupils. Rather, it is intended to open up a space to enable all those involved in the process to engage with their own options, value judgements and emotions as well as other perspectives in relation to sustainable development.

This opens up the option of transformative learning (Mezirow, 2012). The transformational character arises from the fact that our own views, value judgements and emotions are opened up to critical reflection. Such learning processes are not commonplace, as we usually strive to maintain our own frames of reference, which make the world comprehensible and manageable for us and provide a sense of continuity (Mälkki & Green, 2018; Singer-Brodowski et al., 2022).

However, perspectives are being increasingly challenged due to the complexity of crises, dilemmas and uncertainties in sustainable development, and it is becoming clear that many established habits are unsuitable for making a constructive contribution to current problems. When our views and interpretations of the world become exasperated, this can have a destabilising effect and this state is inevitably associated with emotions – usually with unpleasant emotions

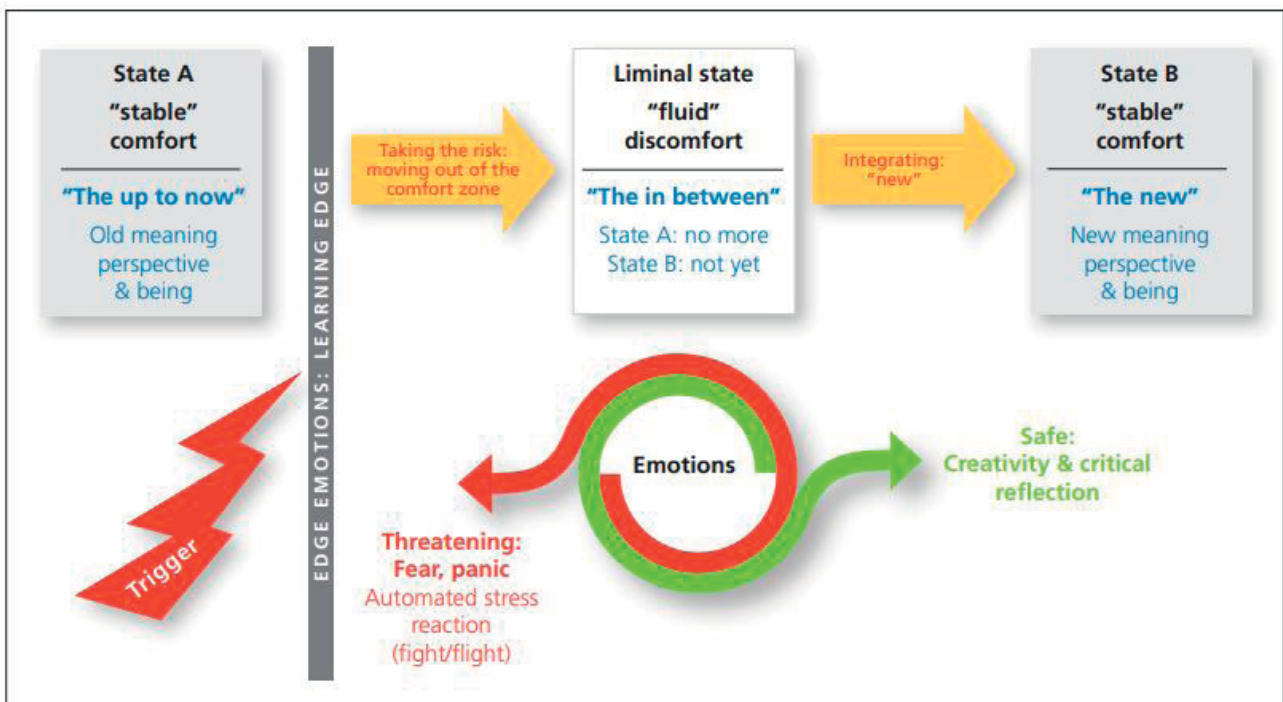


Fig. 3: Loss of comfort zones and state of „fluid discomfort“ (taken from: Förster, R. et al., 2019. Transformative teaching in Higher Education for Sustainable Development: facing the challenges. GAIA- Ecological Perspectives for Science and Society, 28(3), 324-326. <http://dx.doi.org/10.14512/gaia.28.3.18>)

first, which Mälkki (2019) refers to as edge emotions: Edge emotions act as „threshold indicators“ that show us a state of uncertainty. They indicate that we are moving outside of our comfort zone.

In order to maintain safety and stability in our interpretations of the world, unpleasant emotions that challenge us to go outside of our own comfort zones tend to stimulate us to revert to our former frames of reference as a point of orientation. For instance, we use familiar explanations to categorise events, or we discredit others so as to keep our interpretation of the world stable. If the unpleasant emotions and associated behaviours are not reflected upon, they can have a very conservative effect in order to protect our world views (Mälkki, 2019; Waldow-Meier, 2022).

In engaging with dilemmas, we can also find ourselves in a state of fluid discomfort, as we become aware that old ways of looking at things seem unsuitable for solving problems, but that new ideas and behaviours may not yet be within our grasp, or that we have some at hand, whose disadvantages we cannot overlook. The topics and problems that are dealt with in this project are characterised, in particular, by the fact that no clear-cut solutions, no clear-cut right or wrong exist. Therefore, pupils and teachers alike are confronted with uncertainty. If this uncertainty can be tolerated for a while in order to turn to and reflect on the emotions and recognise the imperfections of one's own perspectives as a valuable learning moment, the opportunity to develop new perspectives arises. Transformative Learning processes require the courage to question previous ways of thinking and approaches and to seek new perspectives through dialogue. As a teacher, you are called upon to create a culture of dialogue that allows pupils to recognise imperfections in their own perspectives (Mälkki & Green, 2016). This requires critical reflection that examines previous assumptions. The appropriate mode of carrying out this examination is through an appreciative dialogue (Mezirow, 2012), which enables critical thinking and the questioning of routines and perspectives as well as the adopting of perspectives, empathy and respect for others.

As a basis for this, we recommend starting by collectively agreeing on dialogue rules, which support appreciative listening and pave the way for further constructive collaboration (see the Dialogue rules worksheet).

With this in mind, you and the pupils are invited to familiarise yourselves with your own emotions in relation to the complex problems and dilemmas of sustainable development as part of the project. Elements that support the observation of one's own emotions are integrated into each topic block. The observations can and should be made explicit to varying degrees: It can be useful for pupils to make a note of their own observations to protect their privacy. Dialogue and exchange in teams of two can be a suitable mode, as well as group discussions in which observations can be shared if sufficient mutual trust exists. Pupils are free to choose the extent to which they share self-observations in the group. Opportunities for emotional reflection can be created by visualising emotions, e.g. using emotion monster cards. For additional free suggestions of ways to customise the way in which study processes are shaped, see: https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/anlage12_methode_fuer_die_reflexionsphase_2_reflexion_eigener_gefuehle_und_gedanken.pdf

Sustainable development is inconceivable without the inclusion of emotions – on the one hand they are obstacles, making decisions and changes more difficult, on the other hand, they are motivators, propel us forward, promote ideas in individuals and processes in society as a whole.

Therefore, giving space to paralysing or inhibiting emotions is an important part of the model. This is not in order to fuel them, but to find a way of dealing with them that promotes action. Throughout the study units, critical hope and trust should be encouraged and the ability to tolerate ambiguity developed. In addition, the aforementioned resilience factors should be strengthened, and self-efficacy experiences should be enabled in order to lay an important foundation for pupils to competently deal with dilemma situations and uncertainties of sustainable development.

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Appendix Quality declaration for digital ESD material

This educational material takes account of the quality criteria for digital ESD materials in accordance with the resolution of the National ESD Platform dated 9 December 2022. Source: ESD Portal

Criteria			Fulfilment
	Yes	No	Not applicable / Comment
1. Contents			
1.1 Sustainable development	✓		
1.2 Accuracy and timeliness	✓		Block 3 provides examples of research paths and reputable sources of information that were available at the time of publication. No liability can be accepted for the content and continuity of the links.
1.3 Formation of judgement	✓		
1.4 Heterogeneity	✓		
1.5 Transparency	✓		In the methodological variants, we suggest the use of Mentimeter and emotional monster cards, among other things. These free suggestions and ideas are aimed at teachers in preparation for the study units.
2. Methodology			
2.1 Controversy and multiplicity of perspectives	✓		
2.2 Target group and lifeworld orientation	✓		
2.3 Competence orientation	✓		Particularly fulfilled in the topic of fake news
2.4 Action orientation	✓		
2.5 Participation	✓		Although digitally accessible, the material is primarily designed for group learning processes and interaction in real-life interactions. It is not yet available in easy language.
2.6 Cooperative, creativity-promoting methods	✓		
3. Formal design			
3.1 Data protection and data security	✓		
3.2 Copyright	✓		
3.3 Accessibility	✓		
3.4 User-friendly design	✓		
3.5 Interconnectivity		✓	Although digitally accessible, the material is primarily designed for group learning processes and interaction in real-life interactions..



DEVELOPING SKILLS IN DEALING WITH UNCERTAINTY

Material package on the topic

Fake News

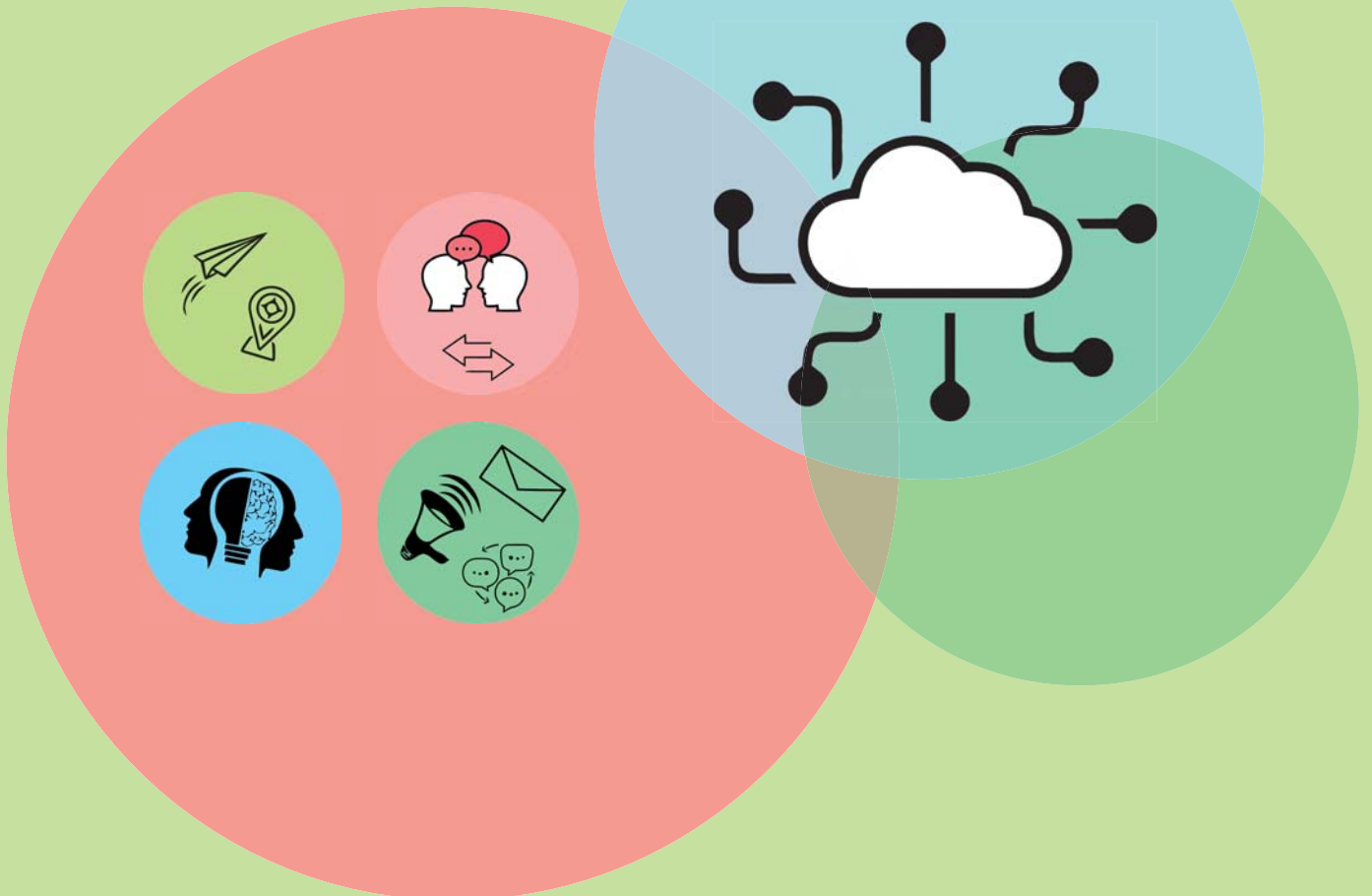


TABLE OF CONTENTS

Entry



What it's all about ...	4
Fake news in the discourse on biodiversity	4
The concept	5
Use of materials	6

Block 1



Introduction	7
Fake News Block 1 – Opening dilemma	8
Information Sheets (Info)	11
Info: Dialogue rules	12
Info: Two truths one lie	13
Info: Vignette	14
Info: Vignette positions	15
Info: Fake news memory solution sheet	17
Worksheets (WS)	20
WS: The dilemma situation	21
WS: Single-sentence positioning	23
WS: Fake news memory	24

Block 2



Introduction	29
Fake News Block 2 – Adopting a perspective	30
Information sheets (Info)	33
Info: Simulation game sequence	34
Info: Fishbowl method	37
Info: Colony collapse disorder from various perspectives	38
Info: Moderation – Moderation stimuli and questions	41
Worksheets (WS)	44
WS: Observation sheet	45
WS: Citizen A role card.....	46
WS: Citizen B role card.....	50
WS: Citizen C role card.....	53
WS: Citizen D role card.....	56

WS: Farmer A role card	59
WS: Farmer B role card	62
WS: Environmental Protection Organisation A role card	65
WS: Environmental Protection Organisation B role card	68
WS: Social Democratic Party A role card	71
WS: Social Democratic Party B role card	74
WS: Nature Conservation Party A role card	77
WS: Nature Conservation Party B role card	80

Block 3

Introduction	83
Fake News Block 3 – Knowledge.....	84
Information Sheets (Info)	87
Info: Research paths	88
Info: Research tips	89
Info: Fake news	90
Worksheets (WS)	91
WS: Research questions.....	92
WS: Opinion and truth.....	93
WS: I think ... I feel	95

Block 4

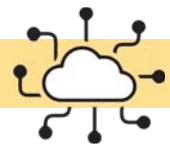
Introduction	97
Fake News Block 4 – Courses of action.....	98
Information Sheets (Info)	101
Info distinguish misinformation	102
Info description of the game	103
Worksheets (WS)	104
WS: My media consumption	105
WS: Recognising disinformation checklist Variant A	107
WS: Recognising disinformation checklist Variant B	108
WS: Reflection and transfer	109

WHAT IT'S ALL ABOUT ...

Sustainability issues are associated with multi-layered problems, complex interrelationships and a wealth of information. This makes it difficult to reach decisions and take action at personal and societal levels. There is often no clear right or wrong, it is rather a matter of weighing up the options and developing one's own position. This can lead to uncertainty and overwhelm, which hinder motivated, goal-orientated action.

This is where the project comes in. It aims to support pupils in being able to act even in the face of complexity and uncertainty. This addresses important aspects of organisational competence that have been given little attention in ESD to date. Therefore, in 2021 the project titled "Education for Sustainable Development: Learning to manage dilemmas, risks, and trade-offs" saw the launch, funded by the German Federal Environmental Foundation and realised by Institut Futur and the Fields Institute in cooperation with the German Society for Environmental Education. The project centres on the development of learning materials for stage 1 secondary schools (age 10-16) that enable pupils to engage with dilemmas relating to (un)sustainable development in the context of biodiversity

FAKE NEWS IN THE DISCOURSE ON BIODIVERSITY



In an increasingly complex world, it has become more difficult and time-consuming to distinguish between misinformation and true information. Some pieces of knowledge cannot be understood or verified down to the last detail, so we have to rely on experts (e.g. doctors, scientists).

However, information on the internet is also wrong in many cases. Checking sources is time-consuming and something people simply don't do in everyday life. At the same time, asking experts for advice is not always possible. Who do we trust and based on what criteria?

The pupils explore the topic of fake news in relation to colony collapse disorder. How are these topics interrelated? Some honeybee populations in the USA died mysteriously in 2006. To this day, there is still no consensus as to what caused it. This phenomenon is called Colony Collapse Disorder (CCD).

The corresponding term „Bienensterben“ (literally „bee mortality“) was coined in Germany. This term is misleading as it suggests that all bee species are on the brink of extinction. However, this is not really true. Often, no distinction is made between honeybees and wild bees. Regional differences also need to be taken into account. The term „colony collapse disorder“ is often emotionalised by the media or co-opted by political parties or Environmental Protection Organisations to achieve their own goals. As a result, bees are often seen as a poster child, thus they raise awareness around the problems relating to our environment in society. This is not objectionable in and of itself, but when the problem is stripped of its nuances, this also provides a breeding ground for misinformation and disinformation. In addition, the complexity and impact of declining insect populations on our environment is receding into the background. Therefore, it is worth taking a nuanced look at this topic, and the topic of fake news in general.

THE CONCEPT

Each study unit is divided into four 90-minute blocks. Within a defined framework, the pupils are given the opportunity to engage with the subject of fake news independently, following their personal interests and setting their own priorities.

The aim is to develop an independent attitude with regard to possible courses of action in complex situations. This is done by looking at the dilemma more closely. Individual positions are adopted, in-depth research is carried out and arguments are discussed. By alternating between emotion and cognition, their engagement with the subject is deepened and condensed. The aim is always to develop the ability to act in complex situations.

The study materials are available for schools to use free of charge. They can be used in lessons in subjects such as ethics, biology, geography and politics. In addition, the materials can also be used on project days or weeks and in open all-day working groups. In terms of the time to be allocated, at least four 90-minute blocks should be reserved. However, we recommend planning an additional block as a buffer in order to respond to the pupils' pace of work and working methods in a flexible manner and allocate more time as needed or delve more deeply into particular aspects..

Block 1: Opening

Practical opening stimulus
Entering the topic from the viewpoint of everyday life
Approaching the problem

Block 2: Adopting a perspective

Discussing different positions
Reflecting on emotions
Developing one's own point of view

Block 3: Knowledge

Engaging with the topic in greater detail
Acquiring additional knowledge
Illuminating the complexity

Block 4: Courses of action

Developing courses of action and potential solutions
Transfer to everyday life

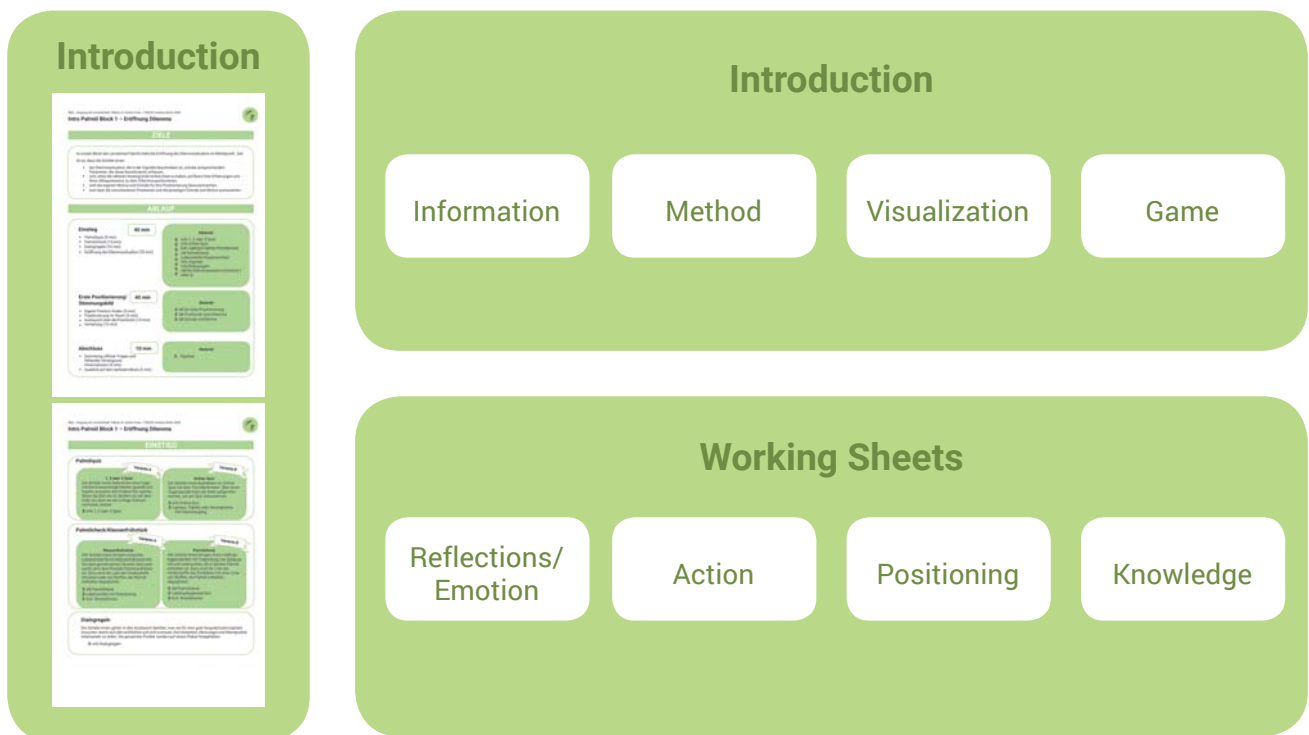
USE OF MATERIALS

The introductions are the central element of the material and are used as an entry point to familiarise pupils with the study units. They offer suggestions and instructions on how the individual blocks can be organised.

The **information sheets** mainly serve as a source of information on various aspects of the material or topic. They provide an insight into background information on the topic of fake news. Visualisations are provided in order to illustrate complex interrelationships or different positions. The individual blocks also comprise games and discussion rounds. These are explained in more detail on the information sheets by means of instructions for the games and methods.

As a side note for you: The information sheets can be shared with students in some cases. Notes are provided in the introduction in such cases.

The **worksheets**, in turn, are aimed at the pupils. They help pupils explore and consolidate their positions. They also help them to reflect on their own emotions and record the knowledge they have acquired in order to prepare for the discussion, for example. There are also worksheets that show various courses of action.





Fake News
Block 1 – Opening Dilemma
Introduction





Introduction to Fake News Block 1 – Opening Dilemma

GOALS

The first block of the Fake News study unit focuses on opening up the dilemma situation.

The aim is that the pupils

- grasp the dilemma situation described in the vignette and the corresponding constituent parameters,
- adopt a position on the dilemma based on their experiences and everyday knowledge without having researched the background in detail,
- obtain an overview of various terms and phenomena relating to fake news.

SEQUENCE

Entry

30 min

- Dialogue rules (15 min.)
- Two truths one lie (15 min.)

Material

- ➔ Info: Dialogue rules
- ➔ Info: Two truths one lie

Approaching the topic

55 min

- Opening the dilemma situation (15 min.)
- Positioning (20 min.)

Material

- ➔ Info: Vignette
- ➔ WS: The dilemma situation
- ➔ WS: Single-sentence positioning
- ➔ Info: Vignette positions
- ➔ WS: Fake news memory
- ➔ Info: Fake news memory solution

Conclusion

5 min

- Looking ahead to the next block (5 min.)

Material

- ➔ Flipchart



Introduction to Fake News Block 1 – Opening Dilemma

ENTRY

Dialogue rules

The pupils discuss what they need for a good discussion atmosphere so that everyone feels comfortable and confident sharing their thoughts, opinions, and points of view. The points mentioned are noted on a poster. The poster is then hung up in a highly visible place in the room.

➔ Info: Dialogue rules

Two truths one lie

The pupils form small groups of six and play the Two truths one lie game. Afterwards, they reflect in the plenary on how they went about identifying the lie.

➔ Info: Two truths one lie

Key questions

- Did you find it easy or difficult to work out which statement was a lie?
- How did you go about it?
- How did it feel to tell the truth and to lie?

APPROACHING THE TOPIC

Opening the dilemma situation

Vignette: The beginning of the vignette is read out or told. The comments can be read out by pupils after roles have been distributed to them.

➔ Info: Vignette

Clarifying the dilemma situation

The difficulty of the situation and the reasons behind this difficulty are compiled in small groups or in a class discussion. This can be done by either discussing the questions on the worksheets directly in the small group/class or answering them in writing first before returning to the group. Thus, only the first or second page of WS: The dilemma situation is required.

➔ WS: The dilemma situation



Introduction to Fake News Block 1 – Opening Dilemma

Positioning

The pupils consider who they would believe if they were in Malik's shoes and write their answers down on the template.

Key question: Who should Malik believe? Is the politician who says that agriculture is to blame for colony collapse disorder right? Or should he believe the representatives of beekeepers' associations who say that frost and Varroa mites are its main causes? **What do you think? What would your decision be and why?**

➡ WS: Single-sentence positioning

The pupils place their single-sentence positioning on the floor of the room on an imaginary scale. The positions of the politician and the beekeepers' association are located at opposite sides of the room. The visualisation of the positions (Info: Vignette positions) can be used to mark the two poles. When everyone has put down their sheets, the pupils walk around and take a look at the different positions.

➡ (Info: Vignette positions)

In a moderated discussion, the pupils discuss the positioning process based on the key questions.

Key questions

- Why do you believe this side?
- How easy or difficult was it for you to make the decision? Why?
- What would you need to make a better decision?
- Have you ever been in a similar situation and if so, what did you do?

Memory

Working in pairs, the pupils cut out the memory cards, then play a round. The cards contain terms and their explanations on the topic of fake news. The term and the matching explanation always make a pair. Making the pairs can be a bit tricky. That's why there is a solution sheet that pupils can use to check their pairs at the end of the game. The aim of the game is to give pupils an overview of the various phenomena and concepts relating to fake news.

➡ WS: Fake news memory

➡ Info: Fake news memory solution sheet

CONCLUSION

Looking ahead to the second block

The sequence for the next unit is looked over.



Fake News
Block 1 – Opening Dilemma
Information Sheets





Block 1 – Info: Dialogue rules

Contents:

Opening up and talking about personal thoughts and feelings takes time and courage. It is therefore important for the members of the group to discuss how they want to talk to each other beforehand. What do I want and what do the others want? This graphic shows what some possible needs might be.

How:

The teacher brings a pre-prepared poster showing a speech bubble to the first lesson. Before the pupils adopt a position, the pupils and teacher discuss what they want regarding dialogue rules for the project time and write their wishes on the poster. The poster is then hung on the wall, where it remains until the end of the project.

No argument is ridiculous or embarrassing.

We are active listeners and let other finish speaking.

We respect different points of view.

Everyone can decide what and how much they want to share.

The teacher does not know all the answers. We can find solutions together.

Emotions that we talk about stay in the group. We handle them confidentially and with care.

There are no right or wrong solutions.



Block 1 – Info: Two Truths, One Lie

The aim of this game is for the pupils to tell each other one lie and two truths. The aim is to identify the lie. To do this, the pupils get together in groups of six in a circle of chairs and decide who is going to start. After the pupil has shared two truths and one lie with the group, he/she asks his/her classmates the following question: "Which statement is a lie? Statement 1, 2 or 3?" After a vote has been taken, a decision is made as to which statements are true and which are false. The next pupil then starts.

Examples:

- I was in a film (true)
- I met the president of the U.S.A. (true)
- I went hiking on a volcano (false)

- I like bread and butter (false)
- It takes me 40 minutes to get to school (true)
- I've read two books this year (true)





Block 1 – Info: Vignette¹


Malik is surfing the internet and is on Twitter. On the homepage, he sees an article posted by a German magazine on colony collapse disorder. The article describes an exchange regarding the causes of colony collapse disorder between politicians and beekeepers' organisations, with both sides accusing each other of misinformation.

One of the politicians believes that colony collapse disorder is tantamount to a catastrophe and that one of its major causes is agriculture. A member of a farmers' and beekeepers' association responds to this statement with the following comment:

"Nothing but populism and electioneering. This statement shifts the problem onto the farmers."


The respondent believes that frost and the Varroa mite infestation are the main reasons for colony collapse disorder and that industrial agriculture is actually helping honeybees to survive. The article also mentions another article which claims that colony collapse disorder is not happening at all.

Confused after reading the article, Malik reads through the comments below the post. Here are some excerpts:


 Ahmad L.


I can see it coming, the farmers are to blame again. #hunting

2 8


 Li S.


I think the article shed light on both sides, and I don't get why you have to talk about hunting. You're only fueling the fire. #formoreobjectivityindiscussions #responsibility

3 10


 Ahmad L.

I can say whatever I want! #freeexpressionofopinion


1 7


 John M.

I recently saw a statistic that proves the bees are recovering. So there is no such thing as colony collapse disorder. #fakenews #wewantthetruth


2 3

As is so often the case, this article does not report on colony collapse disorder in a truly nuanced way. This is fertile ground for false reports, as the comment by John M. shows. #dangerous


 Muhammed F.


I have the following questions: Are the article and the statistics about the honeybee, the wild honeybee, or the wild bee? @ John M. What statistics are you getting this information from? Statistics can also be quoted in line with the speaker's interests... For example, the increase in bees may mean that there are more beekeepers, but this doesn't show the actual number of bees.

0 11


 Isabell J.

I think the fact that Varroa mites are mentioned is very important. In my experience, this is actually one of the biggest reasons why bees are on the brink of extinction. I've been a beekeeper myself for years, so I know that a higher number of bee colonies also means an increased number of Varroa mites. This is why new beekeepers should only work with experienced beekeepers.

1 4


 Liz K.

I find the comments here completely ridiculous. Somehow people are discussing everything else apart from the actual article content. 😊

0 2

After reading through the comments, Malik wonders who he should believe. Is the politician who says that agriculture is to blame for colony collapse disorder right? Or should he believe the representatives of beekeepers' associations who say that frost and Varroa mites are its main causes.

1: The story is based on the following article:

<https://www.wochenspiegelive.de/stadt-trier/artikel/bienensterben-katastrophe-vor-der-haustuer-oder-fake-news>



Block 1 – Info: Vignette positions

**Politicians: „Agriculture
is the cause of colony
collapse disorder.“**



Block 1 – Vignette Positions

**Beekeepers' association:
“Frost and Varroa mites are
the main causes of colony
collapse disorder”**



Block 1 – Info: Fake News Memory Solution Sheet

When it comes to fake news, there are many different terms to describe various phenomena. The terms, together with explanations of their meanings, correctly categorised from the memory are provided below.

Fake News

“false reports disseminated with manipulative intent in the media and on the internet, especially in social networks” (Duden)

The circulation of falsified news as a means of influencing public opinion is not a new phenomenon. However, the existence of the internet and social media mean that false reports can be spread much further and more quickly. This is a circumstance which is being capitalised on by numerous populist politicians and their supporters. This is what led to the coining of this term. The term is now often used as a provocative term to devalue the fact-based arguments of one’s political opponents. (see Oliver Geyer, 2020)

Geyer, O. (2020). Wort! Fluter – Magazin der Bundeszentrale für politische Bildung [Magazine of the Federal Agency for Civic Education], (ed. 77 Topic: Truths Winter 2020 – 2021), pg. 17.

Conspiracy theory

“idea/assumption that a conspiracy/ conspiratorial endeavour is the starting point of something” (Duden)

Alleged conspiracies are deployed to explain social reality. Especially in times of crisis, they are often spread because they depict the enemy using stereotypes, find scapegoats and reduce complex relationships to simple terms. (see Oliver Geyer, 2020)

Geyer, O. (2020). Wort! Fluter – Magazin der Bundeszentrale für politische Bildung [Magazine of the Federal Agency for Civic Education], (ed. 77 Topic: Truths Winter 2020 – 2021), pg. 17.

Hoax

“false report disseminated in a social network or via e-mail” (Duden)

The word actually means joke or jest. However, it is also used for a certain type of false report. Hoaxes are spread via email, WhatsApp, or other messenger services. They appear to come from trustworthy senders and encourage people to forward the message to as many contacts as possible – just like a chain letter. Many false reports in this form with misinformation and nonsensical tips regarding coronavirus were circulating during the Covid-19 pandemic. (see Oliver Geyer, 2020)

Geyer, O. (2020). Wort! Fluter – Magazin der Bundeszentrale für politische Bildung [Magazine of the Federal Agency for Civic Education], (ed. 77 Topic: Truths Winter 2020 – 2021), pg. 17.



Block 1 – Info: Fake News Memory Solution Sheet

Propaganda

“systematic dissemination of political, ideological or similar ideas and opinions with the aim of influencing the general consciousness in a certain way” (Duden)

The term describes the written or verbal dissemination of ideas and information in order to convince others of these ideas. This works particularly well through the use of mass media. It is often used by political rulers in authoritarian states or dictatorships to influence the population in their favour. They want to manipulate people, and often use false information to do so. (see Schneider, Toyka-Seid, 2023)

Schneider, G., Toyka-Seid, C. (2023). Das junge Politik-Lexikon von [The young persons' political encyclopaedia from] www.hanisauland.de, Bonn: Bundeszentrale für politische Bildung [Federal Agency for Civic Education] 2023.

Lying press

“[19th century] catchword for media, especially newspapers and magazines, which are accused of being under political, ideological or economic influence, concealing or falsifying information and thus manipulating public opinion” (Duden)

This provocative term belittles the media in a combative manner. It is linked to the accusation that the media are controlled and fail to provide correct information on a particular issue. The term was used as early as the First World War and under the Nazi regime to disparage reporting from outside Germany. In recent years, it has been revitalised by the right-wing populist PEGIDA demonstrations. (see Oliver Geyer, 2020)

Geyer, O. (2020). Wort! Fluter – Magazin der Bundeszentrale für politische Bildung [Magazine of the Federal Agency for Civic Education], (ed. 77 Topic: Truths Winter 2020 – 2021), pg. 17.

Deepfake

“(e.g. with criminal or satirical intent) an image or sound file created or manipulated with the help of artificial intelligence” (Duden)

This term describes fake images or audio, or video recordings created using artificial intelligence. Users with no prior knowledge can create deceptively real-looking videos using programmes or apps, and voices and faces can be swapped in real time. Such videos are often published for entertainment or fun but can also be used to spread disinformation or to influence public opinion and political processes for specific purposes. Videos often appear more credible to us than text. (see Federal Press Office, 2022)

Federal Press Office (28 June, 2022). Künstliche Intelligenz. Deepfakes: Ist das echt? [Artificial intelligence. Deepfakes: Is it real?] Bundesregierung.de. <https://www.bundesregierung.de/breg-de/themen/umgang-mit-desinformation/deep-fakes-1876736> accessed 31/05/2023



Block 1 – Info: Fake News Memory Solution Sheet

Misinformation

“false information” (Duden)

The term describes false information that is put into circulation. This can be caused by a mistake or lack of awareness. However, the intention behind it is not to deliberately mislead people or enforce one’s own agenda. (see Köhring, Zimmermann, 2019)

Köhring, M., Zimmermann, F. (2 May, 2019). Desinformation: Vom Kalten Krieg zum Informationszeitalter. [Desinformation: From the Cold War to the Information Age.] Bpb.de.

<https://www.scribbr.de/apa-standard/beispiel/internetartikel/> accessed 17/05/2023.

Disinformation

“deliberately false information for the purpose of deception” (Duden)

This term refers to the circulation of false information or fake news in order to influence public opinion. Such news is also called “fake news”. Politicians have started to use “fake news” as a provocative term to dismiss unwelcome reports about them. To distance themselves from this usage, some people use the term “disinformation” instead. (see Köhring, Zimmermann, 2019)

Köhring, M., Zimmermann, F. (2nd May 2019). Disinformation: [Disinformation: From the Cold War to the Information Age.] Bpb.de., accessed 17/05/2023.

post-factual

“belonging to a stage of development in which the significance of facts is declining sharply; independent of truth or reality” (Duden)

This term describes the tendency in political debates to argue using provable facts less and subjective experiences, feelings, and personal beliefs more. Distortions and lies are also used deliberately to fuel prejudice. However, there are also those who reject the term. They emphasise the fact that lies have always been told in political discussions and inconvenient facts have always been denied. (see Geyer, 2020)

Geyer, O. (2020). Wort! Fluter – Magazin der Bundeszentrale für politische Bildung [Magazine of the Federal Agency for Civic Education], (ed. 77 Topic: Truths Winter 2020 – 2021), pg. 17.



Fake News
Block 1 – Opening Dilemma
Worksheets





Block 1 – WS: The Dilemma Situation

Which positions are shown?

**What do the representatives of these positions
accuse each other of?**

How do the representatives justify their positions?

**What motives, interests or goals could be
behind the respective position?**

**In the positions, accusations and comments,
what feelings resonate?**



Block 1 – WS: The Dilemma Situation

Take another look at the situation described above:

Which positions are shown?

What do the representatives of these positions accuse each other of?

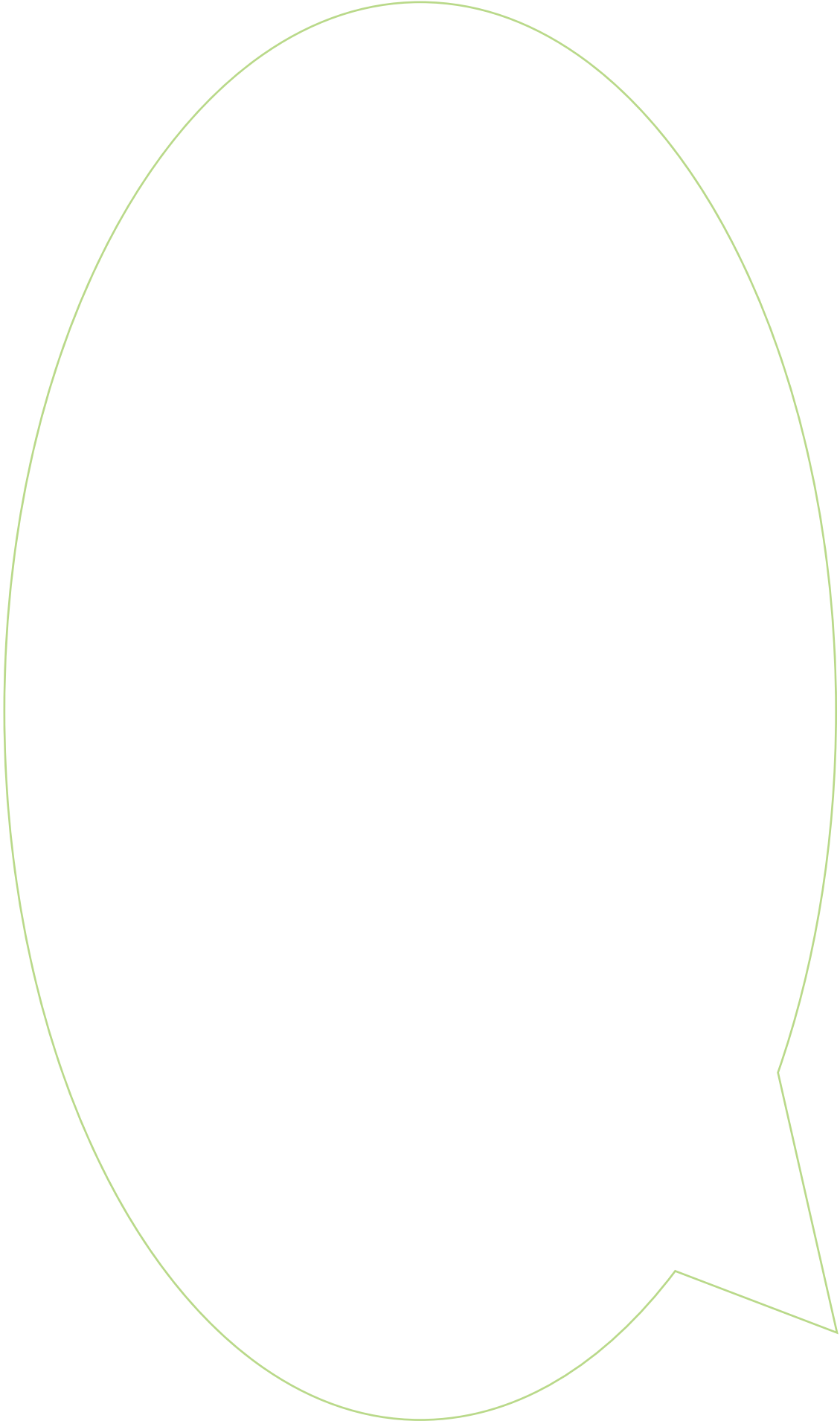
How do the representatives justify their positions?

What motives, interests or goals could be behind the respective position?

In the positions, accusations and comments, what feelings resonate?



Block 1 – WS: Single-Sentence Positioning





Block 1 – WS: Fake News Memory

When it comes to fake news, there are many different terms to describe various phenomena. The terms, together with explanations of their meanings, correctly categorised from the memory are provided below.

Fake News

“false reports disseminated with manipulative intent in the media and on the internet, especially in social networks” (Duden)

The circulation of falsified news as a means of influencing public opinion is not a new phenomenon. However, the existence of the internet and social media mean that false reports can be spread much further and more quickly. This is a circumstance which is being capitalised on by many populist politicians and their supporters. This is what led to the coining of this term. The term is now often used as a provocative term to devalue the fact-based arguments of one’s political opponents. (see Oliver Geyer, 2020)

Geyer, O. (2020). Wort! Fluter – Magazin der Bundeszentrale für politische Bildung [Magazine of the Federal Agency for Civic Education], (ed. 77 Topic: Truths Winter 2020 – 2021), pg. 17.

Conspiracy Theory

“idea/assumption that a conspiracy/ conspiratorial endeavour is the starting point of something” (Duden)

Alleged conspiracies are deployed to explain social reality. Especially in times of crisis, they are often spread because they depict the enemy using stereotypes, find scapegoats and reduce complex relationships to simple terms. (see Oliver Geyer, 2020)

Geyer, O. (2020). Wort! Fluter – Magazin der Bundeszentrale für politische Bildung [Magazine of the Federal Agency for Civic Education], (ed. 77 Topic: Truths Winter 2020 – 2021), pg. 17.



Block 1 – WS: Fake News Memory

Hoax

“false report disseminated in a social network or via e-mail” (Duden)

The word actually means joke or jest. However, it is also used for a certain type of false report. Hoaxes are spread via email, WhatsApp, or other messenger services. They appear to come from trustworthy senders and encourage people to forward the message to as many contacts as possible – just like a chain letter. Many false reports in this form with misinformation and nonsensical tips regarding coronavirus were circulating during the Covid-19 pandemic. (see Oliver Geyer, 2020)

Geyer, O. (2020). Wort! Fluter – Magazin der Bundeszentrale für politische Bildung [Magazine of the Federal Agency for Civic Education], (ed. 77 Topic: Truths Winter 2020 – 2021), pg. 17.

Propaganda

“systematic dissemination of political, ideological or similar ideas and opinions with the aim of influencing the general consciousness in a certain way” (Duden)

The term describes the written or verbal dissemination of ideas and information in order to convince others of these ideas. This works particularly well through the use of mass media. It is often used by political rulers in authoritarian states or dictatorships to influence the population in their favour. They want to manipulate people, and often use false information to do so. (see Schneider, Toyka-Seid, 2023)

Schneider, G., Toyka-Seid, C. (2023). Das junge Politik-Lexikon von [The young persons' political encyclopaedia from] www.hanisauland.de, Bonn: Bundeszentrale für politische Bildung [Federal Agency for Civic Education] 2023.



Block 1 – WS: Fake News Memory

Deep Fake

“(e.g. with criminal or satirical intent) an image or sound file created or manipulated with the help of artificial intelligence” (Duden)

This term describes fake images or audio, or video recordings created using artificial intelligence. Users with no prior knowledge can create deceptively real-looking videos using programmes or apps, and voices and faces can be swapped in real time. Such videos are often published for entertainment or fun but can also be used to spread disinformation or to influence public opinion and political processes for specific purposes. Videos often appear more credible to us than text. (see Federal Press Office, 2022)

Federal Press Office (28 June, 2022). Künstliche Intelligenz. Deepfakes: Ist das echt? [Artificial intelligence. Deepfakes: Is it real?] Bundesregierung.de. <https://www.bundesregierung.de/breg-de/themen/umgang-mit-desinformation/deep-fakes-1876736> accessed 31/05/2023

Lying Press

“[19th century] catchword for media, especially newspapers and magazines, which are accused of being under political, ideological or economic influence, concealing or falsifying information and thus manipulating public opinion” (Duden)

This provocative term belittles the media in a combative manner. It is linked to the accusation that the media are controlled and fail to provide correct information on a particular issue. The term was used as early as the First World War and under the Nazi regime to disparage reporting from outside Germany. In recent years, it has been revitalised by the right-wing populist PEGIDA demonstrations. (see Oliver Geyer, 2020)

Geyer, O. (2020). Wort! Fluter – Magazin der Bundeszentrale für politische Bildung [Magazine of the Federal Agency for Civic Education], (ed. 77 Topic: Truths Winter 2020 – 2021), pg. 17.



Block 1 – WS: Fake News Memory

Misinformation

“false information” (Duden)

The term describes false information that is put into circulation. This can be caused by a mistake or lack of awareness. However, the intention behind it is not to deliberately mislead people or enforce one’s own agenda. (see Köhring, Zimmermann, 2019)

Köhring, M., Zimmermann, F. (2 May, 2019). Desinformation: Vom Kalten Krieg zum Informationszeitalter. [Disinformation: From the Cold War to the Information Age.] Bpb.de.
<https://www.scribbr.de/apa-standard/beispiel/internetartikel/>
accessed 17/05/2023.

Disinformation

“deliberately false information for the purpose of deception” (Duden)

This term refers to the circulation of false information or fake news in order to influence public opinion. Such news is also called “fake news”. Politicians have started to use “fake news” as a provocative term to dismiss unwelcome reports about them. To distance themselves from this usage, some people use the term “disinformation” instead. (see Köhring, Zimmermann, 2019)

Köhring, M., Zimmermann, F. (2nd May 2019). Disinformation: [Disinformation: From the Cold War to the Information Age.] Bpb.de.,
accessed 17/05/2023.



Block 1 – WS: Fake News Memory

post-factual

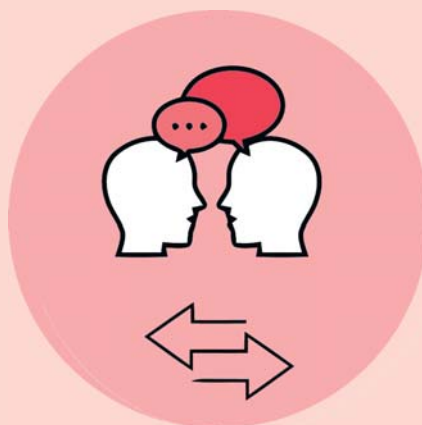
“belonging to a stage of development in which the significance of facts is declining sharply; independent of truth or reality” (Duden)

This term describes the tendency in political debates to argue using provable facts less and subjective experiences, feelings, and personal beliefs more. Distortions and lies are also used deliberately to fuel prejudice. However, there are also those who reject the term. They emphasise the fact that lies have always been told in political discussions and inconvenient facts have always been denied. (see Geyer, 2020)

Geyer, O. (2020). Wort! Fluter – Magazin der Bundeszentrale für politische Bildung [Magazine of the Federal Agency for Civic Education], (ed. 77 Topic: Truths Winter 2020 – 2021), pg. 17.



Fake News
Block 2 – Adopting a Perspective
Introduction





Introduction to Fake News Block 2 – Adopting a Perspective

GOALS

The second block of the Fake News study unit focuses on adopting a perspective and raising awareness of various argumentation strategies.

The aim is that the pupils

- adopt a role that may not necessarily correspond to their own point of view,
- find arguments in favour of this perspective,
- try out and recognise argumentation strategies,
- reflect on which arguments and strategies they find convincing.

SEQUENCE

Entry

10 min

- Recapitulating the last lesson (10 min.)
- Present the sequence of the block (5 min.)

Material

- ➔ Info: Simulation game sequence

Simulation

75 min

- Preparation phase (35 min.)
- Discussion phase (25 min.)
- Evaluation (15 min.)

Material

- ➔ Info: Simulation game sequence
- ➔ WS: Observation sheet
- ➔ Info: Colony collapse disorder from various perspectives
- ➔ WS: Citizen (A, B, C, D) role card
- ➔ WS: Farmer (A, B) role card
- ➔ WS: Environmental Protection Organisation (A, B) role card
- ➔ WS: Social Democratic Party (A, B) role card
- ➔ WS: Environmental Protection Party (A, B) role card
- ➔ Info: Moderation – Moderation stimuli and questions
- ➔ Info: Fishbowl method

Conclusion

5 min

- Looking ahead to the next block (5 min.)



Introduction to Fake News Block 2 – Adopting a Perspective

ENTRY

Working together, the pupils recapitulate the last block:

- Has anybody encountered the topics of disinformation or colony collapse disorder in everyday life? Did anyone have a dilemma last week? How did you deal with it?
- Summarising the vignette
- Compiling the various positions from the last lesson.

Presenting the sequence of the block:

- The various phases of the simulation game (preparation phase, discussion, evaluation) and summary of the initial situation or setting of the simulation game are presented.
- ➡ Info: Simulation game sequence

SIMULATION GAME

Preparation phase

Allocating roles

The roles are distributed among the pupils. A different version of the six roles exists for each argumentation strategy (factual, emotional, disinformation). Each role should be occupied by at least four pupils so that each strategy is represented twice. WS: Observation sheet is discussed among the pupils and questions are clarified so that everyone is clear on what they should pay attention to during the discussion. Info: Colony collapse disorder from various perspectives can be used for background information on the topic of colony collapse disorder.

- ➡ Info: Simulation game sequence
- ➡ WS: Observation sheet
- ➡ Info: Colony collapse disorder from various perspectives

Note: The pupils are supposed to find out who is pursuing which strategy in the course of the discussion. Therefore, only the different roles and the strategies in general terms, not the particular role, which is being pursued in each strategy, may be named during the distribution. WS: Observation sheet is also required for the start of the next block.

Work in small groups

A small group is formed, made up of the pupils with the same role. Working together, they read through their role description, think about arguments for the discussion and decide who will be the first to represent the role in the discussion. Info: Colony collapse disorder can also be used in addition to the role card.

- ➡ WS: Citizen (A, B, C, D) role card
- ➡ WS: Farmer (A, B) role card
- ➡ WS: Environmental Protection Organisation (A, B) role card
- ➡ WS: Social Democratic Party (A, B) role card
- ➡ WS: Environmental Protection Party (A, B) role card



Introduction to Fake News Block 2 – Adopting a Perspective

Discussion phase

The room is rearranged for the fishbowl discussion. After an opening stimulus, the representatives chosen by the small groups begin to present their point of view and put forward an argument. The discussion is then opened up and the members of the small groups can replace each other in the discussion circle. Those who are not currently discussing observe the discussion and try to find out who is pursuing which strategy.

- Info: Moderation – Moderation stimuli and questions
- Info: Fishbowl
- WS: Observation sheet

Evaluation phase

After the discussion, the room is rearranged, and the discussion is then analysed in the plenary. The pupils reflect on their observations of the discussion and assessments of who was pursuing which strategy. The pupils then use their respective roles to resolve which strategy they pursued.

Key questions

- Who pursued which strategy?
- How was it to represent the role in the discussion? Did you find it easy or difficult? Did you feel comfortable in the role?
- Which arguments did you personally find convincing? What strategy did they pursue?
- What emotions were addressed by the arguments?

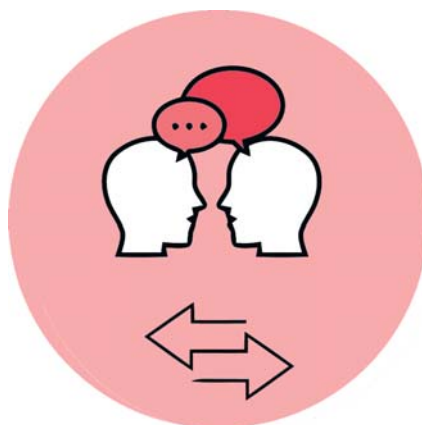
CONCLUSION

Looking ahead:

The sequence for the next unit is looked over.



Fake News
Block 2 – Adopting a Perspective
Information Sheets





Block 2 – Info: Simulation Game Sequence

In a setting similar to a simulation game, the pupils adopt various roles and argue from this perspective in a fishbowl discussion. The role provides

- a viewpoint on the initial situation – for or against the referendum, or a discussion objective – that can be used to persuade others to vote for or against the referendum,
- a strategy which they can use to argue their point during the discussion – either fact-based, emotionalised or using disinformation –
- as well as a role description with various focal points and attitudes that can be used as a starting point in the search for arguments.

Info: Colony collapse disorder provides a thematic overview and information that can also be used as a basis for arguments.

The aim is that, through active experimentation, the pupils, on the one hand, experience the power of disinformation, facts, and emotions in (political) debates, and on the other hand, practise recognising such strategies and try to reflect on the effect they have on them.

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be banned.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.



Block 2 – Info: Simulation Game Sequence

Roles

There are six different roles – three in favour of the referendum and three against. Each role has two versions – each with different strategies. The roles should be distributed in such a way that each role and strategy is represented by at least two pupils.

For the referendum:

Environmental Protection Organisation A
Strategy: emotional
Environmental Protection Organisation B
Strategy: factual

Environmental Protection Party A
Strategy: Disinformation
Environmental Protection Party B
Strategy: emotional

Citizen A
Strategy: factual
Citizen B
Strategy: Disinformation

Against the referendum:

Farmer A
Strategy: emotional
Farmer B
Strategy: factual

Social Democratic Party A
Strategy: Disinformation
Social Democratic Party B
Strategy: factual

Citizen C
Strategy: emotional
Citizen D
Strategy: Disinformation



Block 2 – Info: Simulation Game Sequence

Sequence

Preparation phase: (35 min.)

The roles are distributed. The strategies should only be named in general terms and not by the particular role which is being pursued, because the objective is to try and determine which strategy is being used in the course of the discussion. Each role and strategy should be represented by at least two pupils. The pupils with the same roles form a small group. Each small group consists of at least four people, e.g.: two pupils with the role of Environmental Protection Organisation A and the strategy of arousing emotions in the discussion, and two pupils with the role of Environmental Protection Organisation B and the strategy of using sober facts to argue their point.

In the small groups, they familiarise themselves with their roles, work together to consider arguments based on the characteristics of the role and the respective strategy and agree on one person who will take part in the discussion first. Once they have presented their argument, the others can take over.

After the work in small groups is completed, the pupils work together to rearrange the room for the fishbowl (see Info: Fishbowl).

Discussion phase: (25 min.)

The setting for the fishbowl discussion is the last meeting before the referendum takes place and begins with an opening stimulus (see Info: Moderation stimuli). In addition to the moderator, the six other seats in the inner circle are occupied by the representatives of the small groups appointed beforehand. As soon as the panellists have exchanged their arguments and responded to each other, the other members of the small group can take over. Those who are not currently involved in the discussion observe and try to find out who is pursuing which strategy (WS: Discussion observation).

Evaluation: (15 min.)

After the discussion has ended, the room is rearranged. The discussion is then analysed in the plenary. The pupils reflect on their observations of the discussion and assessments of who was pursuing which strategy. The pupils then use their respective roles to resolve which strategy they pursued.

Key questions

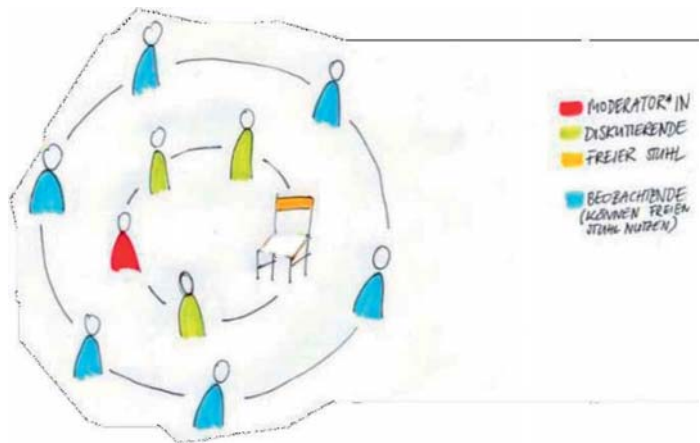
- Who pursued which strategy?
- How was it to represent the role in the discussion? Did you find it easy or difficult? Did you feel comfortable in the role?
- Which arguments did you personally find convincing? What strategy did they pursue?
- What emotions were addressed by the arguments?



Block 2 – Info: Fishbowl

Fishbowl method

The fishbowl is a method that is suitable for dynamic discussions in larger groups. A smaller circle of panellists is surrounded by a larger circle of listeners, who can switch between the two circles at will.



Preparation

Reorganisation

- The seating arrangement for the fishbowl discussion is prepared based on the sketch. There are eight chairs in the inner circle: one for the moderator, six for the role representatives and one free chair for taking turns.

Discussion

After an opening stimulus, the representatives appointed beforehand can start in the inner circle and present their point of view and their argument in favour of it. They can then invalidate or reinforce each other's arguments and the floor is opened. The pupils in the outer circle can take the free space in the discussion or take over from each other.

Moderation

- The teacher moderates the discussion (Info: Moderation – Moderation stimuli and questions).

Inner circle

- The inner circle starts the discussion. Anyone who feels they have said everything they wanted to say can move from the inner circle to the outer circle.

Outer circle

- The pupils in the outer circle can use the available space in the inner circle to contribute their arguments to the discussion. If there is no space available, they stand behind somebody in the inner circle, who then finishes their thought and moves to the inner circle.
- The pupils who are not currently discussing observe the discussion and try to find out who is pursuing which strategy.



Block 2 – Info: Colony Collapse Disorder from Various Perspectives

Everyone is talking about colony collapse disorder! So it's worth taking a nuanced look. What does the term mean? Which bee species in which region are we actually talking about? Why is the term colony collapse disorder misleading? Which animal is actually dying out? What are the various positions on the topic and what does colony collapse disorder have to do with misinformation/disinformation?

Explanation of terms

Some honeybee populations in the USA died mysteriously in 2006. To this day, there is still no consensus as to what caused it. This phenomenon is called Colony Collapse Disorder (CCD). The corresponding term „Bienensterben“ (literally „bee mortality“) was coined in Germany. This term is misleading as it suggests that all bee species are on the brink of extinction. However, this is not really true. Often, no distinction is made between honeybees and wild bees. Regional differences also need to be taken into account.

Is the bee threatened with extinction?

This question is not so easy to answer. Statistically speaking, the honeybee population has been increasing worldwide since the 1960s. In Germany, the population declined in the 1990s, but has been increasing again in recent years.

As far as the extinction of the honeybee is concerned, many people agree that the honeybee is not directly threatened with extinction, as long as beekeepers exist. Nevertheless, honeybees also suffer population losses every year. But to describe this situation as „bee mortality“ is misleading. Honeybees live in a welfare state, which means they are better able to compensate for losses in their populations than wild bees. In addition, beekeepers ensure that the populations are maintained.

Wild bees, in contrast, are solitary and therefore cannot recover as quickly. It is estimated that many of the 590 species of wild bees living in Germany are endangered or even threatened with extinction. However, this is also the case for many other insect species.

The bee is therefore not an isolated case, and, in this context, it would make sense to speak of declining insect populations. The bee is therefore rather a representative of a much larger problem. The term is often emotionalised by the media or co-opted by political parties or Environmental Protection Organisations to achieve their own goals. Furthermore, the bee can be seen as a poster child, that can be used to make a complex topic socially acceptable and thus raise awareness in society. This is not objectionable in and of itself, but when the problem is stripped of its nuances, this also provides a breeding ground for misinformation and disinformation.

Causes unclear

It is suspected that pesticides, monocultures, soil sealing, and climate change play a role in the decline of bees. However, as data collection is difficult, disagreement on the various causes and their extent is rife. The unclear facts often lead to accusations in discourse, which complicates the debate on the causes and their possible solutions.

If the bee dies, does the human die too?

Is that true? Not quite! Of course, a world without bees would have serious environmental and economic consequences. However, it is not entirely correct to say that humans could not survive without bees. On the one hand, plants would be pollinated by other insects, and on the other hand, there are plants, such as wheat or oats, that do not need animal pollinators in order to survive. As a result, human food security would be more limited, and we would certainly have to do without many things. However, this, in and of itself, would not lead to human extinction.



Block 2 – Info: Colony Collapse Disorder from Various Perspectives

Colony collapse disorder from various perspectives – some examples:

POLITICS: In the field of politics, stakeholders from the areas of agricultural policy, environmental policy and business often clash when it comes to colony collapse disorder. It is precisely the unclear facts and the various objectives that provide material for discussion. Three neonicotinoid pesticides have been banned since 2013. Further restrictions have been added to this ban in recent years.

- <https://www.tagesspiegel.de/politik/grune-fordern-von-bundesregierung-verbot-von-bienenkillern-5809969.html>
- <https://www.spektrum.de/kolumne/bienen-luegen-und-evidenzbasierte-politik/1185367>
- <https://www.sueddeutsche.de/muenchen/starnberg/bienen-volksbegehren-kaniber-starnberg-1.4313265>
- <https://www.deutschlandfunk.de/artenschutz-versus-wirtschaft-europas-streit-um-bienen-und-100.html>
- <https://www.nabu.de/news/2011/13365.html>

ENVIRONMENTAL PROTECTION: In the field of environmental protection, there is a high level of advocacy for bee conservation and insect conservation. Sometimes the accusation is levelled that the bee is being co-opted as a poster child by those who wish to make themselves heard in society and politics. Even if species conservation is an important matter and using the bee as a poster child is a clever strategy, the problem is usually not presented in such a nuanced manner, which in turn provides a breeding ground for misinformation. This strategy can also lead to accusations of spreading fake news from opposing sides, which would harm the actual goal. The ban on pesticides was viewed in a positive light by environmental activists and rather sceptically by chemical companies. Chemical companies therefore commissioned studies, which showed that pesticides played only a minor role in the decline of bees. This prompted organisations such as NABU [German Nature and Biodiversity Conservation Union] to criticise the studies in order to invalidate them, on the basis that they were somewhat biased.

- <https://www.ava1.de/blog/das-bienensterben-betrug-fake-news-oder-wahrheit-n151>
- <https://www.geo.de/natur/oekologie/insektenforscher--begriff-bienensterben-ist-irrefuehrend-31876956.html>
- <https://www.nabu.de/news/2011/13365.html>
- <https://www.badische-zeitung.de/experte-erklaert-warum-er-den-begriff-des-bienensterbens-nicht-mag-152774156.html>



Block 2 – Info: Colony Collapse Disorder from Various Perspectives

AGRICULTURE: Many farmers are aware of the potential impact of pesticide use and monocultures. In order to protect the environment and thus biodiversity, many people are calling for more organic and less conventional farming. However, farmers feel abandoned and complain that such a complex problem as declining insect populations is being shifted onto them. The following positions can be recognised in the debate: On the one hand, there is the position that the environmental requirements of EU agricultural policy are too strict, that the policy restricts farmers in terms of their ability to make a profit and does little to support them in this respect. Another position is that EU agricultural policy promotes the intensification of agriculture, which in turn leads to environmental damage. For example, large farms in particular receive considerable support. The larger the area of a farm, the more money it will receive. In addition to the intensification of agriculture, this leads to environmental damage. Farmers also complain that too few incentives for switching to organic farming are available.

- <https://www.sueddeutsche.de/muenchen/starnberg/volksbegehren-bienen-starnberg-1.4308533>

HOBBY BEEKEEPER: If you want to do something for the environment, choosing beekeeping as a hobby sounds logical at first. However, there is also criticism that this can lead to competition for food between honeybees and wild bees. If the honeybee population grows due to the increase in beekeepers, there is a risk that the population of wild bees, a species that is already endangered, will continue to decline. Therefore, if you want to protect biodiversity, you should create habitats for wild bees, for instance, by placing plants on your veranda.

- <https://www.quarks.de/umwelt/tierwelt/darum-verschaerft-hobbyimkerei-das-insektensterben/>
- <https://www.n-tv.de/wissen/frageantwort/Zahl-der-Hobby-Imker-steigt-Konkurrenz-mit-Wildbienen-spricht-gegen-Bienenhaltung-in-der-Stadt-article23295100.html>

SOCIETY: Germany's increasingly popular rock gardens pose a problem. Sealing the soil is harmful not only to the climate, but also to insects.

- <https://www.nabu.de/umwelt-und-ressourcen/oekologisch-leben/balkon-und-garten/trends-service/trends/23829.html>



Block 2 – Info: Moderation – Moderation Stimuli and Questions

Opening

In an opening stimulus, the setting for the discussion is created, the discussion procedure is named, and the discussion participants are welcomed.

After the discussion, the room is rearranged, and the discussion is then analysed in the plenary. The pupils reflect on their observations of the discussion and assessments of who was pursuing which strategy. The pupils then use their respective roles to resolve which strategy they pursued.

Moderation stimulus:

You are all very welcome the final debate on the Referendum on bees, which will take place next week. I am delighted to see so many residents in attendance. I'd like to welcome the delegates from the Environmental Protection Party and the Social Democratic Party, the representatives of local agriculture and the Environmental Protection Organisation as well as the committed citizens present. You will have the opportunity to present your points of view and arguments in turn and to respond to each other. We will then open the floor and you can make way for your supporters.

Before we start the debate, I would like to summarise the proposals of the Referendum on bees, which is the reason for this meeting.

As you all know, a debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in our locality for some time. As a result, the Environmental Protection Organisation has initiated the Referendum on bees, which comprises the following proposals:

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be banned.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

As already mentioned, the referendum will be held next week, and this is the last meeting at which the pros and cons will be discussed. The floor is now open for your views and arguments for or against the referendum. Who wants to start?



Block 2 – Info: Moderation – Moderation Stimuli and Questions

Opening the floor

After the first representatives of the various roles and interest groups have presented their points of view and their initial arguments, the floor is opened, and the other group members can take their places in the inner circle.

Many thanks to the panellists for their contributions so far. We will now open the floor to the other attendees. If you wish to take part in the discussion, please take one of the available seats. If there is no space available, you can stand behind a chair and take the seat as soon as it becomes available.

**What is your position on the referendum?
What are some points in its favour? What are some points against?**

End of the discussion

When the time (25 min.) is up or if nobody has anything else to say, close the discussion with a final round. After everyone has said their closing sentence in turn, bring the meeting to a close and thank the participants.

We are approaching the end of the meeting. You now have the opportunity to say one final sentence.

Thank you very much for your participation and for the interesting contributions to the discussion. The meeting is now closed.



Block 2 – Info: Moderation – Moderation Stimuli and Questions

Open questions

Open questions can be used to encourage panellists to elaborate on their points of view, or to encourage them to talk and to think more deeply about the topic.

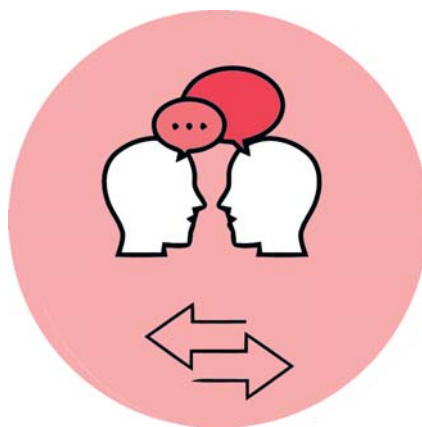
After the discussion, the room is rearranged, and the discussion is then analysed in the plenary. The pupils reflect on their observations of the discussion and assessments of who was pursuing which strategy. The pupils then use their respective roles to resolve which strategy they pursued.

Examples of open questions:

- | | |
|---|-------------------------------------|
| What ideas/perceptions do you have on the topic? | What would be a better alternative? |
| What does ... look like to you? | What can be done instead? |
| What should it look like in the future? | What other options are there? |
| What does it look like in more concrete terms? | Why is this particularly important? |
| What else can be said about this? | What does this mean for ...? |
| How do you imagine ...? | Who is particularly affected? |
| Can you think of any more? | What can be done about it? Why? |
| What aspect of this do you find particularly important? | How does that make you feel? |



Fake News
Block 2 – Adopting a Perspective
Worksheets





Block 2 – WS: Observation Sheet

If you are not taking part in the discussion, your task is to observe the discussion carefully.

Try to find out what position the panellists have adopted and what strategies they are using.

Since you already know the position and strategy of your fellow group members, you don't have to pay attention to them. There are six roles in total, each with two different strategies. So there are ten possible position and strategy combinations. You don't have to find all the positions. Concentrate on the ones that really stand out to you.

The following strategies exist: emotional, factual, disinformation

At the end of the discussion, think about the thoughts and feelings that come up for you after the discussion, as well as which argument you personally find the most convincing, regardless of your role.

Position

Argument in favour of the position:

Accusations against other positions:

What feelings were conveyed?

Strategy:

Position

Argument in favour of the position:

Accusations against other positions:

What feelings were conveyed?

Strategy:



Block 2 – WS: Observation Sheet

Position

Argument in favour of the position:

Accusations against other positions:

What feelings were conveyed?

Strategy:

Position

Argument in favour of the position:

Accusations against other positions:

What feelings were conveyed?

Strategy:



Block 2 – WS: Citizen A Role Card

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be prohibited.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

Assignment:

Read through your role description, goal, and strategy on the next page. Working with your small group, think of some arguments that you can use to convince the others during the discussion. Try to implement the strategy also. More helpful information is provided on Info: Colony collapse disorder.

Once enough arguments have been collected, decide which member of your group will take part in the discussion first. You will be able to take turns. Those who are not discussing must listen carefully and try to figure out which strategy the other panellists might use.



Block 2 – WS: Citizen A Role Card

Role description:

As someone who is interested in politics, you are excited about the opportunity to play an active role in shaping politics as part of the Referendum on bees. Environmental protection is very important to you and environmentally conscious behaviour is something you pay attention to in your everyday life. You follow a vegetarian diet, eat organic products only and drive an electric car. Voting Yes in the referendum is a matter of course to you, and you are already busy campaigning among your friends.

Some developments happening locally are anathema to you. More and more neighbours in your street are opting for low-maintenance rock gardens, which you find completely incomprehensible. Apart from the fact that they seal off valuable areas and fail to provide bees and other insects with a habitat or food, you also find them super ugly.

The farm at the edge of the locality also annoys you. You just can't understand why he hasn't switched to organic farming long since. Although it may be more labour-intensive and expensive, the produce can be sold at a higher price. In your opinion, anyone who is still using pesticides is simply being insensitive towards nature and future generations and putting their own convenience and profit interests above the well-being of all.

Goal:

You want to convince the residents to vote Yes in the referendum. That would be a start towards a sustainable future. Wherever appealing to personal responsibility brings no results, bans will have to be introduced.

Strategy:

You are convinced that many good reasons for environmentally conscious behaviour exist. If you look at the facts head-on, you have no choice but to change your behaviour. Even if the debate stirs up your emotions, you try to argue soberly and allow the facts to speak for themselves. After all, inescapable facts are the best arguments.

Sample argument:

I think rock gardens destroy the beauty of our locality. But that's a matter of taste and taste is debatable. What is not a matter of taste is the fact that soil sealing is one of the main reasons for colony collapse disorder. Where are the bees supposed to find their nectar if every front garden contains nothing but stones and there is not a single flower in bloom?



Block 2 – WS: Citizen A Role Card

Argument:

Argument:

Argument:

Argument:



Block 2 – WS: Citizen B Role Card

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be prohibited.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

Assignment:

Read through your role description, goal, and strategy on the next page. Working with your small group, think of some arguments that you can use to convince the others during the discussion. Try to implement the strategy also. More helpful information is provided on Info: Colony collapse disorder.

Once enough arguments have been collected, decide which member of your group will take part in the discussion first. You will be able to take turns. Those who are not discussing must listen carefully and try to figure out which strategy the other panellists might use.



Block 2 – WS: Citizen B Role Card

Role description:

As someone who is interested in politics, you are excited about the opportunity to play an active role in shaping politics as part of the Referendum on bees. Environmental protection is very important to you and environmentally conscious behaviour is something you pay attention to in your everyday life. You follow a vegetarian diet, eat organic products only and drive an electric car. Voting Yes in the referendum is a matter of course to you, and you are already busy campaigning among your friends.

Some developments happening locally are anathema to you. More and more neighbours in your street are opting for low-maintenance rock gardens, which you find completely incomprehensible. Apart from the fact that they seal off valuable areas and fail to provide bees and other insects with a habitat or food, you also find them super ugly.

The farm at the edge of the locality also annoys you. You just can't understand why he hasn't switched to organic farming long since. Although it may be more labour-intensive and expensive, the produce can be sold at a higher price. In your opinion, anyone who is still using pesticides is simply being insensitive towards nature and future generations and putting their own convenience and profit interests above the well-being of all.

You are well connected in the sustainability scene and are an active member of various Telegram groups. Other members of these groups frequently share information on the dealings of unscrupulous, profit-hungry businessmen who are exploiting the environment, which you find outrageous. You like to share this and forward it to as many people as possible.

Goal:

You want to convince the residents to vote Yes in the referendum. That would be a start towards a sustainable future. Wherever appealing to personal responsibility brings no results, bans will have to be introduced.

Strategy:

You're convinced that you know what the right thing to do is. You don't care whether or not the information from your networks is scientifically proven. All that matters is that it provides arguments that support your perspective. You don't shy away from deliberately spreading disinformation and half-truths in order to further your goals. Ultimately, it's in everyone's interest, even if they don't know it yet.

Sample argument: (Warning: Disinformation, conspiracy ideology!)

All the genetically modified maize grown in the fields around here is a danger not only to nature, but to us as well. The manipulated genes end up in the groundwater and, as a result, in our drinking water too. If we drink the stuff, our genes will be rewritten!



Block 2 – WS: Citizen B Role Card

Argument:

Argument:

Argument:

Argument:



Block 2 – WS: Citizen C Role Card

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be prohibited.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

Assignment:

Read through your role description, goal, and strategy on the next page. Working with your small group, think of some arguments that you can use to convince the others during the discussion. Try to implement the strategy also. More helpful information is provided on Info: Colony collapse disorder.

Once enough arguments have been collected, decide which member of your group will take part in the discussion first. You will be able to take turns. Those who are not discussing must listen carefully and try to figure out which strategy the other panellists might use.



Block 2 – WS: Citizen C Role Card

Role description:

You are a local resident and the Referendum on bees has been the only topic in your circle of acquaintances for weeks now. The whole debate about climate protection and environmental protection irritates you. It's always about bans and restrictions. You get the sense that all the things you like to do, such as holidaying in Mallorca, driving at high speed, and barbecuing, are being demonised. You've worked hard all your life and feel as if the joy is being sucked out of everyday life.

As far as you're concerned, it's the same thing with the Referendum on bees. Once again, people are just throwing bans around and restricting peoples' personal freedom to live their lives as they want. What business is it of anyone else, how you landscape your garden? Mowing your lawn frequently is important to you because you want your garden to look tidy. Also, all that grass gives you hay fever. It upsets you that the referendum is aimed at stipulating that lawns shouldn't be mowed until later in the year. Why can't everyone just decide for themselves if and when they want to mow their lawn? Anyone who is that concerned about the well-being of bees can plant a bee meadow and let their garden go completely wild. But they shouldn't tell you how to landscape your garden.

Besides, as far as you can see, those who are in favour of the referendum are exaggerating wildly anyway. A friend of yours is a beekeeper and according to her the bee colonies are doing well. After all, they are being looked after by beekeepers! If a colony dies, they build a new one, which safeguards the population. You believe that bees are just being used as an excuse for people to impose their lifestyle on others.

Goal:

You want to convince the residents to vote No in the referendum. Anyone who really wants to stand up for the bees is free to do so in their own garden. But they shouldn't dictate how others live their lives.

Strategy:

The whole issue deeply upsets you. You're completely wound up and want others to feel the same way. You also believe that most people secretly feel the same way, only they don't have the nerve to say it. You believe you can convince them to vote against the referendum using emotional arguments.

Sample argument:

I'm not going to let you dictate how I live my life! I work hard every day. I want to be able to enjoy my evening off on a well-mown lawn without being plagued by sneezing attacks all the time. You think you are superior because of your world view and don't accept that there are other points of view.



Block 2 – WS: Citizen C Role Card

Argument:

Argument:

Argument:

Argument:



Block 2 – WS: Citizen D Role Card

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be prohibited.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

Assignment:

Read through your role description, goal, and strategy on the next page. Working with your small group, think of some arguments that you can use to convince the others during the discussion. Try to implement the strategy also. More helpful information is provided on Info: Colony collapse disorder.

Once enough arguments have been collected, decide which member of your group will take part in the discussion first. You will be able to take turns. Those who are not discussing must listen carefully and try to figure out which strategy the other panellists might use.



Block 2 – WS: Citizen D Role Card

Role description:

You are a local resident and the Referendum on bees has been the only topic in your circle of acquaintances for weeks now. The whole debate about climate protection and environmental protection irritates you. It's always about bans and restrictions. You get the sense that all the things you like to do, such as holidaying in Mallorca, driving at high speed, and barbecuing, are being demonised. You've worked hard all your life and feel as if the joy is being sucked out of everyday life.

As far as you're concerned, it's the same thing with the Referendum on bees. Once again, people are just throwing bans around and restricting peoples' personal freedom to live their lives as they want. What business is it of anyone else, how you landscape your garden? Mowing your lawn frequently is important to you because you want your garden to look tidy. Also, all that grass gives you hay fever. It upsets you that the referendum is aimed at stipulating that lawns shouldn't be mowed until later in the year. Why can't everyone just decide for themselves if and when they want to mow their lawn? Anyone who is that concerned about the well-being of bees can plant a bee meadow and let their garden go completely wild. But they shouldn't tell you how to landscape your garden.

Besides, as far as you can see, those who are in favour of the referendum are exaggerating wildly anyway. A friend of yours is a beekeeper and according to her the bee colonies are doing well. After all, they are being looked after by beekeepers! If a colony dies, they build a new one, which safeguards the population. You believe that bees are just being used as an excuse for people to impose their lifestyle on others. In general, you don't believe in declining insect populations or climate change. These are all just natural fluctuations that will find their balance over time.

Goal:

You want to convince the residents to vote No in the referendum. Anyone who really wants to stand up for the bees is free to do so in their own garden. But they shouldn't dictate how others live their lives.

Strategy:

The whole issue deeply upsets you. You're completely wound up and want others to feel the same way. You also believe that all this talk about colony collapse disorder, declining insect populations and climate change is just fabricated. If the other side uses disinformation and half-truths to argue in favour of their cause, you can too.

Sample argument:

Your talk of colony collapse disorder and declining insect populations is all just fake news. These are natural fluctuations that are completely normal and will find their balance over time.



Block 2 – WS: Citizen D Role Card

Argument:

Argument:

Argument:

Argument:



Block 2 – WS: Farmer A Role Card

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be prohibited.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

Assignment:

Read through your role description, goal, and strategy on the next page. Working with your small group, think of some arguments that you can use to convince the others during the discussion. Try to implement the strategy also. More helpful information is provided on Info: Colony collapse disorder.

Once enough arguments have been collected, decide which member of your group will take part in the discussion first. You will be able to take turns. Those who are not discussing must listen carefully and try to figure out which strategy the other panellists might use.



Block 2 – WS: Farmer A Role Card

Role description:

As holder of a family farm at the edge of the locality, you cultivate several large fields using conventional farming methods, just as your parents, grandparents and great-grandparents did before you. You are proud to be the fourth generation to run the family business.

You are observing the debate over the Referendum on bees with concern. If the referendum was to go through, you would have to convert your operation to organic farming. This would be very labour-intensive and increase your costs. Instead of using pesticides, the weeds would have to be removed by hand. You wouldn't be able to do that on your own. However, hiring another person would involve higher costs and good staff are hard to find. Out of your three fields, you could only manage one during the transition period. Even after that, it is not clear whether organic farming would be viable. You're worried that you won't find companies that will pay you enough for the organic produce to leave you with enough profit.

You also find the whole debate on species conservation annoying because you think that farmers are always being blamed and nobody sees what they are already doing for nature conservation. For instance, you have flower beds growing wild at the edge of the fields that act as a habitat for insects.

Goal:

You want to convince the residents to vote No in the referendum so that you can continue to run your farm as before.

Strategy:

The whole thing is an emotional topic for you, and you let your neighbours see this. You want to convince them of your perspective using emotional arguments.

Sample argument:

The referendum would mean that I would have to convert my entire farm. Organic farming is much more expensive than conventional farming and is also less profitable. If I had to do that, the farm would no longer be viable, and I wouldn't earn enough to feed my family. This farm has been a family business for four generations. I owe it to my late father to continue it. If the referendum goes through, I will have to close the farm. If that happens, it will spell the end of me getting a good nights' sleep.



Block 2 – WS: Farmer A Role Card

Argument:

Argument:

Argument:

Argument:



Block 2 – WS: Farmer B Role Card

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be prohibited.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

Assignment:

Read through your role description, goal, and strategy on the next page. Working with your small group, think of some arguments that you can use to convince the others during the discussion. Try to implement the strategy also. More helpful information is provided on Info: Colony collapse disorder.

Once enough arguments have been collected, decide which member of your group will take part in the discussion first. You will be able to take turns. Those who are not discussing must listen carefully and try to figure out which strategy the other panellists might use.



Block 2 – WS: Farmer B Role Card

Role description:

As holder of a family farm at the edge of the locality, you cultivate several large fields using conventional farming methods, just as your parents, grandparents and great-grandparents did before you. You are proud to be the fourth generation to run the family business.

You are observing the debate over the Referendum on bees with concern. If the referendum was to go through, you would have to convert your operation to organic farming. This would be very labour-intensive and increase your costs. Instead of using pesticides, the weeds would have to be removed by hand. You wouldn't be able to do that on your own. However, hiring another person would involve higher costs and good staff are hard to find. Out of your three fields, you could only manage one during the transition period. Even after that, it is not clear whether organic farming would be viable. You're worried that you won't find companies that will pay you enough for the organic produce to leave you with enough profit.

You also find the whole debate on species conservation annoying because you think that farmers are always being blamed and nobody sees what they are already doing for nature conservation. For instance, you have flower beds growing wild at the edge of the fields, that act as a habitat for insects.

Goal:

You want to convince the residents to vote No in the referendum so that you can continue to run your farm as before.

Strategy:

Although the topic really upsets you, you believe that the best way to convince the other residents is by sober facts.

Sample argument:

Whether or not agriculture contributes to bees dying has not been scientifically proven. Switching from conventional to organic farming would be very expensive, and it's not clear whether it would be of any benefit to the bees. Besides, I already help conserve insects by leaving flower beds at the edge of the fields.



Block 2 – WS: Farmer B Role Card

Argument:

Argument:

Argument:

Argument:



Block 2 – WS: Environmental Protection Organisation A Role Card

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be prohibited.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

Assignment:

Read through your role description, goal, and strategy on the next page. Working with your small group, think of some arguments that you can use to convince the others during the discussion. Try to implement the strategy also. More helpful information is provided on Info: Colony collapse disorder.

Once enough arguments have been collected, decide which member of your group will take part in the discussion first. You will be able to take turns. Those who are not discussing must listen carefully and try to figure out which strategy the other panellists might use.



Block 2 – WS: Environmental Protection Organisation A Role Card

Role description:

You are the chair of a regional Environmental Protection Organisation. Species conservation is an issue that is close to your heart and something you campaign for at every opportunity. It's a mystery to you why more people don't get involved in this area.

The Environmental Protection Organisation of which you are a member helped initiate the Referendum on bees. If it were up to you, the proposals would go much further. The fact that the referendum is focusing on bees bothers you slightly. After all, it's not just bees that are threatened with extinction, but many other insects too. On the other hand, the bee is a poster child and of course the aim is to get as many people as possible on board for species conservation.

You particularly loathe conventional farmers who, in your opinion, care more about profit than nature conservation and disregard the future of all humankind. However, local residents paving over their gardens with stones is another topic you could rage about for hours. After all, soil sealing is a key reason why bees and other insects can no longer find a habitat. If it were up to you, things like that would be banned.

Goal:

You want to convince the residents to vote Yes in the referendum.

Strategy:

You are passionate about protecting the environment and are convinced that the survival of the very planet is at stake. You believe that for people to change their behaviour, their emotions need to be aroused. That's why your arguments are particularly emotional.

Sample argument:

If we don't conserve the bees, it will impact the entire ecosystem. Most animal and plant species will become extinct forever. This has terrible consequences for humans and the animal world!



Block 2 – WS: Environmental Protection Organisation A Role Card

Argument:

Argument:

Argument:

Argument:



Block 2 – WS: Environmental Protection Organisation B Role Card

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be prohibited.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

Assignment:

Read through your role description, goal, and strategy on the next page. Working with your small group, think of some arguments that you can use to convince the others during the discussion. Try to implement the strategy also. More helpful information is provided on Info: Colony collapse disorder.

Once enough arguments have been collected, decide which member of your group will take part in the discussion first. You will be able to take turns. Those who are not discussing must listen carefully and try to figure out which strategy the other panellists might use.



Block 2 – WS: Environmental Protection Organisation B Role Card

Role description:

You are the chair of a regional Environmental Protection Organisation. Species conservation is an issue that is close to your heart and something you campaign for at every opportunity. It's a mystery to you why more people don't get involved in this area.

The Environmental Protection Organisation of which you are a member helped initiate the Referendum on bees. If it were up to you, the proposals would go much further. The fact that the referendum is focusing on bees bothers you slightly. After all, it's not just bees that are threatened with extinction, but many other insects too. On the other hand, the bee is a poster child and of course the aim is to get as many people as possible on board for species conservation.

You particularly loathe conventional farmers who, in your opinion, care more about profit than nature conservation and disregard the future of all humankind. However, local residents paving over their gardens with stones is another topic you could rage about for hours. After all, soil sealing is a key reason why bees and other insects can no longer find a habitat. If it were up to you, things like that would be banned.

Goal:

You want to convince the residents to vote Yes in the referendum.

Strategy:

You are passionate about environmental protection and the topic arouses strong emotions in you. Nevertheless, you believe that the best way to convince others is through fact.

Sample argument:

Conserving bees also means conserving insects. Even if bees only pollinate certain plant species that could perhaps be pollinated by other insects also, they are a sign of a much larger global problem: declining insect populations. Over 85% of all plant species worldwide depend on insect pollination to reproduce. Without insects, our plant world would become impoverished, which in turn means that fewer animals could find food and a habitat. Therefore, bee conservation should always be integrated into a larger insect conservation strategy.



Block 2 – WS: Environmental Protection Organisation B Role Card

Argument:

Argument:

Argument:

Argument:



Block 2 – WS: Social Democratic Party A Role Card

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be prohibited.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

Assignment:

Read through your role description, goal, and strategy on the next page. Working with your small group, think of some arguments that you can use to convince the others during the discussion. Try to implement the strategy also. More helpful information is provided on Info: Colony collapse disorder.

Once enough arguments have been collected, decide which member of your group will take part in the discussion first. You will be able to take turns. Those who are not discussing must listen carefully and try to figure out which strategy the other panellists might use.



Block 2 – WS: Social Democratic Party A Role Card

Role description:

You are running in the next election for the Social Democratic Party and want to prevail against your biggest rival, the Nature Conservation Party. You hope to gain additional votes from the conservative spectrum by advocating a No vote in the Referendum on bees.

Social justice is something you are passionate about. You want to stand up for socially disadvantaged people in your region. If it was up to you, the money that would be needed to implement the referendum should be spent on social projects. The school and daycare centre buildings urgently need to be renovated, and the soup kitchen and charity shop are also in desperate need of financial support. You believe that the well-being of people comes first, and nature second. What's the point of a school and daycare centre having a bee garden if the building itself is dilapidated? Rather than spending taxpayers' money on nesting aids, it would be preferable to ensure that all residents have access to affordable food and clothing.

You are very familiar with politics and know that truth-telling doesn't necessarily secure the most votes. Spreading half-truths, disinformation and empty promises is not uncommon in election campaigns – the main thing is to convince voters.

Goal:

You want to convince the residents to vote No in the referendum. This would go down as a political success that would get you a lot of votes in the next election.

Strategy:

You'll do whatever it takes to get votes. If the other politicians use disinformation and half-truths to win votes, why shouldn't you? Once you're in power, you'll do the right thing for the people on the ground. You'll do whatever it takes to get there.

Sample argument:

I recently visited a beekeeper and saw that his colony was doing extremely well. Colony collapse disorder is just something the Environmental Protection Organisations and the Nature Conservation Party have fabricated to get more donations and votes. To them, the animals are more important than the well-being of the people who live here!



Block 2 – WS: Social Democratic Party A Role Card

Argument:

Argument:

Argument:

Argument:



Block 2 – WS: Social Democratic Party B Role Card

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be prohibited.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

Assignment:

Read through your role description, goal, and strategy on the next page. Working with your small group, think of some arguments that you can use to convince the others during the discussion. Try to implement the strategy also. More helpful information is provided on Info: Colony collapse disorder.

Once enough arguments have been collected, decide which member of your group will take part in the discussion first. You will be able to take turns. Those who are not discussing must listen carefully and try to figure out which strategy the other panellists might use.



Block 2 – WS: Social Democratic Party B Role Card

Role description:

You are running in the next election for the Social Democratic Party and want to prevail against your biggest rival, the Nature Conservation Party. You hope to gain additional votes from the conservative spectrum by advocating a No vote in the Referendum on bees.

Social justice is something you are passionate about. You want to stand up for socially disadvantaged people in your region. If it was up to you, the money that would be needed to implement the referendum should be spent on social projects. The school and daycare centre buildings urgently need to be renovated, and the soup kitchen and charity shop are also in desperate need of financial support. You believe that the well-being of people comes first, and nature second. What's the point of a school and daycare centre having a bee garden if the building itself is dilapidated? Rather than spending taxpayers' money on nesting aids, it would be preferable to ensure that all residents have access to affordable food and clothing.

You are very familiar with politics and know that truth-telling doesn't necessarily secure the most votes. Spreading half-truths, disinformation and empty promises is not uncommon in election campaigns – the main thing is to convince voters.

Goal:

You want to convince the residents to vote No in the referendum. This would go down as a political success that would get you a lot of votes in the next election.

Strategy:

You are upset by the other politicians who will do whatever it takes to get elected and who won't even stop at spreading disinformation and half-truths. This won't win over voters in the long run, and will only deal a blow to democracy. Instead, you rely on facts and on using the best arguments.

Sample argument:

Of course species conservation is important, but we have far more pressing problems to deal with in the locality. Some people in our local area cannot afford food and clothes! They need our support. Nature can also be conserved through private donations.



Block 2 – WS: Social Democratic Party B Role Card

Argument:

Argument:

Argument:

Argument:



Block 2 – WS: Nature Conservation Party A Role Card

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be prohibited.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

Assignment:

Read through your role description, goal, and strategy on the next page. Working with your small group, think of some arguments that you can use to convince the others during the discussion. Try to implement the strategy also. More helpful information is provided on Info: Colony collapse disorder.

Once enough arguments have been collected, decide which member of your group will take part in the discussion first. You will be able to take turns. Those who are not discussing must listen carefully and try to figure out which strategy the other panellists might use.



Block 2 – WS: Nature Conservation Party A Role Card

Role description:

You are running in the next election for the Social Democratic Party and want to prevail against your biggest rival, the Nature Conservation Party. You hope to gain additional votes from the conservative spectrum by advocating a No vote in the Referendum on bees.

Social justice is something you are passionate about. You want to stand up for socially disadvantaged people in your region. If it was up to you, the money that would be needed to implement the referendum should be spent on social projects. The school and daycare centre buildings urgently need to be renovated, and the soup kitchen and charity shop are also in desperate need of financial support. You believe that the well-being of people comes first, and nature second. What's the point of a school and daycare centre having a bee garden if the building itself is dilapidated? Rather than spending taxpayers' money on nesting aids, it would be preferable to ensure that all residents have access to affordable food and clothing.

You are very familiar with politics and know that truth-telling doesn't necessarily secure the most votes. Spreading half-truths, disinformation and empty promises is not uncommon in election campaigns – the main thing is to convince voters.

Goal:

You want to convince the residents to vote Yes in the referendum. That would be a start towards a sustainable future. Besides, this would go down as a political success on your part, that would get you a lot of votes in the next election. Winning elections is crucial to making climate protection and environmental protection top priority at all levels.

Strategy:

You'll do whatever it takes to get climate protection and environmental protection on the agenda. If the other politicians use disinformation and half-truths to win votes, why shouldn't you? Once you're in power, you'll do the right thing to save the planet. You'll do whatever it takes to get there.

Sample argument:

We all like to eat bread and honey for breakfast – no bees, no honey. And that's not all: all the plants that are pollinated by bees will cease to exist! If we don't conserve the bees now, we won't have any food at all in a few years' time!



Block 2 – WS: Nature Conservation Party A Role Card

Argument:

Argument:

Argument:

Argument:



Block 2 – WS: Nature Conservation Party B Role Card

Initial situation: Referendum on bees

A debate on colony collapse disorder – about whether something can be done about it, and if so, what – has been ongoing in your neighbourhood for some time. A Referendum on bees has been initiated by a regional Environmental Protection Organisation. Local residents are very divided. There are some keen supporters, as well as strong opponents. The referendum will be held next week. The last meeting before the vote is taking place today, where the pros and cons can be discussed once again.

Proposals of the Referendum on bees

- All farms in the locality are to switch to organic farming.
- Rock gardens will be prohibited.
- Lawn mowing before June will be prohibited.
- Nesting areas for wild bees are to be established.
- Public buildings such as day-care centres, schools and the town hall will be obligated to create bee gardens and nesting aids.

Assignment:

Read through your role description, goal, and strategy on the next page. Working with your small group, think of some arguments that you can use to convince the others during the discussion. Try to implement the strategy also. More helpful information is provided on Info: Colony collapse disorder.

Once enough arguments have been collected, decide which member of your group will take part in the discussion first. You will be able to take turns. Those who are not discussing must listen carefully and try to figure out which strategy the other panellists might use.



Block 2 – WS: Nature Conservation Party B Role Card

Role description:

You are running in the next election for the Nature Conservation Party and want to prevail against your biggest rival, the Social Democratic Party. If the Referendum on bees goes through, this would go down as a success on your part. Your party has been supporting the referendum from the outset and many of its proposals are in line with your election programme.

Climate protection and environmental protection are the issues that led you to go into politics. You find it intolerable that so little has happened in this area so far. It's finally time to prioritise climate protection and environmental protection, otherwise, before long, it will be too late. Of course there is a price to pay. However, if we continue to look the other way, the resulting costs of environmental damage that future generations will have to bear will be much higher and the damage caused is irreversible.

You are very familiar with politics and know that you don't necessarily get the most votes by stating the truth. Spreading half-truths, disinformation and empty promises is not uncommon in election campaigns – the main thing is to convince voters.

Goal:

You want to convince the residents to vote Yes in the referendum. That would be a start towards a sustainable future. Besides, this would go down as a political success on your part, that would get you a lot of votes in the next election. Winning elections is crucial to making climate protection and environmental protection top priority at all levels.

Strategy:

You'll do whatever it takes to get climate protection and environmental protection on the agenda. If the other politicians use disinformation and half-truths to win votes, why shouldn't you? Once you're in power, you'll do the right thing to save the planet. You'll do whatever it takes to get there.

Sample argument:

It's 5 to 12! We have to finally do something. The life of the entire planet is at stake. When it comes to climate protection and environmental protection, we've turned a blind eye for far too long. This is something we can no longer afford to keep doing! We still have a long way to go, but the referendum is the first important step towards a good future for everyone.



Block 2 – WS: Nature Conservation Party B Role Card

Argument:

Argument:

Argument:

Argument:



Fake News
Block 3 – Knowledge
Introduction





Introduction to Fake News Block 3 – Knowledge

GOALS

The third block of the Fake News study unit focuses on acquiring new knowledge.

The aim is that the pupils

- independently identify relevant subject areas and research paths and use these to research additional information,
- are capable of placing the information in the context of their everyday lives,
- recognise and name complex interrelationships and problematic situations.

SEQUENCE

Entry

10 min

- Recapitulating the last block (10 min.)

Material

- ➔ WS: Observation sheet (block 2)

Research phase

60 min

Variant A

- Research in small groups (40 min.)
- Exchange about research process (20 min.)

Variant B

- Research in small groups (40 min.)
- Exchange about truth and opinion (20 min.)

Material

- ➔ WS: Research questions
- ➔ Info: Research paths
- ➔ Info: Research tips
- ➔ Info: Fake news
- ➔ WS: Opinion & truth (Variant B)
- ➔ Laptop/computer

Conclusion

20 min

- Looking ahead to the next block (5 min.)

Material

- ➔ WS: I think ... I feel ...



Introduction to Fake News Block 3 – Knowledge

ENTRY

Exchange on the simulation game and the discussion

The pupils exchange their views on the discussion in the plenary. The following key questions can be written on the board:

- How did you feel during the discussion?
- Did you find it difficult or easy to adopt the given role?
- How did you find recognising and categorising the various positions, arguments and strategies? Was it easy or rather difficult?
- Can you remember what the arguments, positions and strategies were?

➔ WS: Observation sheet

RESEARCH PHASE

Research

In pairs, the pupils research the topic of fake news. During their research, they take notes on WS: Research questions.

- ➔ WS: Research questions
- ➔ Laptop/computer

Note: Depending on the pupils' knowledge level, WS: Research tips can be used for support. Anyone who has difficulty finding an approach can use Info: Research paths for inspiration. If you have difficulties answering the questions on WS: Research Questions, you can use Info: Fake news.

- ➔ Info: Research tips
- ➔ Info: Research paths
- ➔ Info: Fake news

Variant A

Discussing the research findings

In the plenary, the pupils discuss what they found on the topic of fake news and the questions on WS: Research questions.

- ➔ WS: Research questions

Variant B

Truth & opinion

The pupils all watch the excerpt from the video titled „Meinungsfreiheit – Was man sagen darf und was nicht“ [Freedom of expression – What you can and cannot say] from minute 10:53 to minute 12:55 (available on the ARD website or see footer¹). They then get together in small groups to answer the questions on WS: Truth and opinion. They can decide whether they want to discuss the questions verbally in the small group or individually in writing.

- ➔ WS: Truth and opinion

1: <https://www.ardmediathek.de/video/respekt/meinungsfreiheit-was-man-sagen-darf-und-was-nicht/ard-alpha/Y3JpZDovL2JyLmRIL3ZpZGVvL2JkZjVknZyYlTUxNzktNGFiYy1iNDhiLWE3NDA1NjE2N2lwOQ>



Introduction to Fake News Block 3 – Knowledge

Reflecting on feelings

The pupils recapitulate the newly acquired knowledge by working on WS: I think ... I feel ...

➔ WS: I think ... I feel ...

Conclusion

Looking ahead to the fourth block:

The sequence for the next unit is looked over.

Note: WS: Research questions and WS: Truth and opinion (Variant B) are used for the next unit.



Fake News
Block 3 – Knowledge
Information Sheets





Block 3 – Info: Research Paths

The following questions may be helpful for your research. Ways of finding useful websites are provided as examples to help you:

What is fake news? How and why does fake news spread and what are the dangers of it?

Search terms: *How fake news is spread; dangers of fake news; recognising fake news; who spreads fake news? What is fake news?*

Examples

Planet-wissen.de → Culture → Media → Fake news

https://www.planet-wissen.de/kultur/medien/fake_news/index.html

Klickwinkel.de → #True Story → All Klickwinkel tutorials → Algorithms & fake news → How fake news spreads

<https://klickwinkel.de/tutorials/wie-sich-fake-news-verbreiten/>

Lpb-bw.de → Political topics → Dossiers → Fake news

<https://www.lpb-bw.de/fake-news#c92309>

Bpb.de → Mediathek → Search field: Fake news → Video: This is how fake news spreads

<https://www.bpb.de/mediathek/video/314987/so-verbreiten-sich-fake-news/>

Bpb.de → Mediathek → Fake news → Search field: Fake news → Who spreads fake news?

<https://www.bpb.de/mediathek/video/504742/wer-verbreitet-fake-news/>

Lmz-bw.de → Media education → Topics from F to Z → Hatespeech and fake news → Fake news → What does the term „fake news“ mean?

<https://www.lmz-bw.de/medienbildung/themen-von-f-bis-z/hatespeech-und-fake-news/fake-news/was-sind-fake-news>

Br.de → Search field: Fake news → Article: AI in journalism: Fake news and artificial intelligence

<https://www.br.de/br-fernsehen/sendungen/frankenschau/fake-news-journalismus-100.html>

Why are people susceptible to fake news and what role do emotions play in this process?

Search terms: *Fake news and emotions; why are people susceptible to fake news? The role of emotions in fake news*

Examples

Lmz-bw.de → Media education → Topics from F to Z → Hatespeech and fake news → Fake news →

Why are people susceptible to fake news?

<https://www.lmz-bw.de/medienbildung/themen-von-f-bis-z/hatespeech-und-fake-news/fake-news/warum-sind-menschen-empfaenglich-fuer-fake-news>

Deutschlandfunkkultur.de → Search field: Fake news and emotions → Article: Why fake news is so successful - anger is an extremely infectious emotion

<https://www.deutschlandfunkkultur.de/warum-fake-news-so-erfolgreich-sind-wut-ist-eine-extrem-100.html>



Block 3 – Info: Research Tips

Tip 1: Work your way from the general to the specific

Firstly, get a rough overview and deduce important keywords, sub-areas and questions for your further research. If you come across something interesting or something seems particularly important to you, follow it up. This will allow you to delve into the topic more deeply and find new areas.

Tip 2: Carry out the quality check

Good, reputable sources that you can use ...

- are relevant, i.e. important for your topic,
- have clearly recognisable authors who are ideally experts in the field,
- do not indicate any dubious intentions (e.g. propaganda or clear intentions to sell),
- are written in a factual manner,
- comprise subjective points of view, such as opinions and evaluations,
- are current,
- create the overall impression of being serious and of good quality (e.g. do not contain conspicuously prevalent spelling mistakes),
- are based on verifiable facts, data and figures.

Tip 3: Take a look outside Google

Without a doubt, Google is the best-known and largest search engine. But it's not the only one! In addition to Bing, Ecosia, and Yahoo, there are also meta search engines that comb through the popular search engines for you. These include, for example the German meta search engine MetaGer (<https://metager.de/>).

The European search engine Startpage (<https://www.startpage.com/>) works on the basis of Google by anonymising search queries and sending them to Google. This ensures very good protection of privacy.¹

News portals and newspaper and magazine archives are also good places to start for a really broad search.

Tip 4: Make the best possible use of Google search for your purposes

By using various little search tricks in your Google search, you can reach your goal more quickly and more efficiently. For example, by inserting a hyphen in front of the term, you can exclude certain search terms or entire pages from the search (e.g. -site:bild.de).

Based on: <https://www.cornelsen.de/empfehlungen/referat/recherchetipps> (more search tricks are provided on this website) and https://www.focus.de/familie/lernen/lernhilfen/richtig-recherchieren-lernen-referate_id_1763033.html

¹ <https://www.test.de/Suchmaschinen-im-Test-Eine-schlaegt-Google-5453360-5453367/>



Block 3 – Info: Fake News

The information and phenomena described here represent only a small segment of the topic of fake news. If you wish to find out more, please follow up by conducting your own research

A brief insight into the history of fake news

Fake news has been around for a very long time, actually for as long as humans! As early as 1274 BC, the reigning Pharaoh Ramses II, who had suffered a military defeat, decided to spread fake news by announcing that he had beaten the Hittites. He had this false report recorded in a relief¹. What is the situation today and how is it different from back then? Disinformation could not spread as quickly in the past as it does now². Due to algorithms, we also receive targeted news or even fake news items that are tailored to our interests³. As a result, we are presented with potentially one-sided reporting without having done our own research.

Why do people spread fake news?

There are many reasons why people spread fake news. For example, people share it as a joke or out of a lack of awareness³. In addition, people can share fake news to pursue commercial goals by using sensational headlines to ensure their articles or videos are seen, making them attractive to advertising partners. They can then make money through product placement³. Furthermore, some people spread fake news to support or create conspiracy theories³. The 1969 moon landing can be cited as an example here. People questioned why the US flag was moving even though there was supposedly no wind on the moon. However, there is an understandable reason why the flag was moving. In fact, it was moving because the pole had just been stuck into the ground. This caused vibrations that were transferred to the flag itself. Due to the lack of air resistance, the flag fluttered for longer than it

would have on the ground, which is visible on the video⁴. Another reason why fake news is spread is to influence political opinions. Dictatorships, authoritarian states, or even extremist groups use this technique to agitate anti-media and political sentiment³. Fake news can also be spread for criminal interests; to obtain sensitive data³.

Why are people susceptible to fake news?

With the prevailing wave of information that can reach you on the internet, sometimes it's not so easy to distinguish between opinions, adverts, and independent reporting. As a result, even fake news is no longer so easy to recognise. One of the reasons for this is psychological. Emotions play a major role in fake news, as they generate or reflect strong feelings. If a person tends to be anxious, he/she will believe news that corresponds to his/her own emotions³. People usually pay more attention to negative emotions and remember them for longer than they do positive ones. Since those who are disseminating it are interested in reaching many people, it stands to reason that emotions are used to spread fake news⁵. Those who are less likely to critically scrutinise news, which they also sometimes receive from people they trust, are also more inclined to believe fake news³. People are also more likely to believe news that is shared or liked more often. If there are many news reports on a particular topic, this makes people more likely to believe them. This is because the impression is created that many people are of the same opinion.

1. <https://www.scinexx.de/news/geowissen/fake-news-haben-eine-lange-tradition/>
2. <https://www.lmz-bw.de/medienbildung/themen-von-f-bis-z/hatespeech-und-fake-news/fake-news/fake-news-ein-ueberblick>
3. <https://www.lpb-bw.de/fake-news#c92309>
4. <https://www.geo.de/wissen/weltall/21681-rtkl-50-jahre-mondlandung-darum-flatterte-die-fahne-auf-dem-mond>
5. <https://www.lmz-bw.de/medienbildung/themen-von-f-bis-z/hatespeech-und-fake-news/fake-news/warum-sind-menschen-empfaenglich-fuer-fake-news>



**Fake News
Block 3 – Knowledge
Worksheets**





Block 3 – WS: Opinion and Truth

The following questions may be used as a guide when researching disinformation:

How and why does disinformation spread and what are the dangers of this?

Why are people susceptible to disinformation and what role do emotions play in this process?

How can disinformation be recognised and what can be done to prevent its spread?



Block 3 – WS: Opinion and Truth

What are your take-aways from the video?

**What is the difficulty in distinguishing
between truth and opinion?**

**Who do you look to in order to form your
own opinion? Politicians, activists, scientists,
family, friends or others?**



Block 3 – WS: Opinion and Truth

Take another look at the situation described above:

What are your take-aways from the video?

What is the difficulty in distinguishing between truth and opinion?

Who do you look to in order to form your own opinion? Politicians, activists, scientists, family, friends or others?



Block 3 – WS: I think ... I feel ...

Gaining an overview of complex relationships and understanding how you yourself think about them takes time and is sometimes not so easy. The following sentence components can help you to gain a better overview of your thoughts and feelings.

You don't have to answer all the questions. Choose the boxes that interest you. Whenever you can grasp a thought or a feeling on the spur of the moment, that is a good place to start.

When I hear that people use disinformation to manipulate others ...

... I think:

... I feel:

When I hear that AI can also be used to make videos and sound recordings appear deceptively real, ...

... I think:

... I feel:

When I hear that some politicians accuse other politicians of fake news in order to discredit them, ...

... I think:

... I feel:

When I hear that some people tell half-truths to support their opinion ...

... I think:

... I feel:

When I hear that people use disinformation to make money, ...

... I think:

... I feel:

When I realise that acquaintances believe certain pieces of disinformation from the internet and share them on social media, ...

... I think:

... I feel:



Fake News
Block 4 – Courses of Action
Introduction





Introduction to Fake News Block 4 – Courses of Action

GOALS

The fourth block of the Fake News study unit focuses on possible courses of action.

The aim is that the pupils

- reflect on their own media consumption,
- find practicable ways for them to recognise disinformation,
- practise recognising disinformation,
- reflect on their learning experiences and transfer them to future actions.

SEQUENCE

Entry

10 min

- Working together, the previous block is recapitulated and the addressed arguments, problem areas and solutions are revisited. (5 min.)
- An overview of the sequence of this block is provided. (5 min.)

Potential actions

65 min

Reflection on media consumption

- The pupils reflect on their own media consumption with regard to their susceptibility to disinformation. (15 min.)

Disinformation checklist

- The pupils find tips for recognising disinformation that are practical for them. (25 min.)

Recognising disinformation applied

- Using an online game, the pupils apply the knowledge they have gained and practise recognising disinformation. (25 min.)

Material

- ➔ WS: My media consumption
- ➔ WS: Recognising disinformation checklist Variant A/B
- ➔ Info: Recognising disinformation
- ➔ Info: Description of the game
- ➔ Devices with internet access

Transfer

20 min

- Experience and knowledge acquired are reflected upon and transferred to future decision-making situations and actions.

Material

- ➔ WS: Reflection and transfer



Introduction to Fake News Block 4 – Courses of Action

ENTRY

Review

Working together, the previous block is recapitulated, and research findings are summarised as examples.

An overview of the sequence of this block is then provided.

Key questions

- How and why does disinformation spread and what are the dangers of this?
- Why are people susceptible to disinformation and what role do emotions play in this process?
- How can disinformation be recognised and what can be done to prevent its spread?

POTENTIAL ACTIONS

Reflection on your own media consumption

Using WS: My media consumption, the pupils analyse which media they use, to what extent and for what purpose, to what extent these media appeal to their feelings and how susceptible to disinformation they consider the respective media to be.

The pupils then discuss this in the plenary based on the key questions.

➔ WS: My media consumption

Key questions

- Which media do you use most often and what for? Which media appeal to your emotions the most and which feelings are they?
- Which media do you think are particularly susceptible to disinformation?
- If you feel that disinformation is being spread by the media, what do you do?

Disinformation checklist

The pupils review their research findings from the previous block and compile a checklist to help them recognise disinformation. They should only include those tips that they consider practical and that they can imagine actually implementing. The pupils enter their selection of tips in one of the two checklist templates. In addition to the research findings, pupils can also use Info: Recognising disinformation, which contains a list of websites with tips for recognising disinformation. These can either be printed out beforehand or accessed online by the pupils.

- ➔ WS: Recognising disinformation checklist Variant A/B
- ➔ Info: Recognising disinformation



Introduction to Fake News Block 4 – Courses of Action

Disinformation checklist

Disinformation checklist

The pupils use their checklist and the knowledge they have gathered from the previous blocks and practise recognising disinformation using the SWR Fact Finder. The game experience is then evaluated based on the key questions.

- ➡ Info: Description of the game
- ➡ Devices with internet access

Key questions

- How easy or difficult was it for you to recognise the disinformation?
- Do you feel confident in dealing with disinformation?
- If not, what makes you feel insecure? What would you need in order to feel safer?

TRANSFER

Transfer

The pupils start by working alone and reflecting on the experiences and insights gained using WS: Web of feelings and WS: Reflection and transfer.

- ➡ WS: Reflection and transfer

Exchange

The pupils divide into groups of four and share their experiences.

Key questions

- What was new to me?
- What did I find particularly surprising?
- What am I taking with me into everyday life?
- Where can the learnings be applied?
- Which takeaways will help me in forming my own opinions and developing my own points of view?
- How do I feel at the end of the unit? Has my feeling changed over time?

At the end, the experiences are presented as examples and shared in the plenary on a voluntary basis.



Fake News
Block 4 – Courses of action
Information Sheets





Block 4 – Info: Recognising Disinformation

Here are some helpful websites that provide tips on how to recognise disinformation. They vary in terms of their length and practicality. They can help pupils when creating their checklists if they need additional material beyond their research findings.

Bpb.de → kurz&knapp → Encyclopaedias → The young persons' political encyclopaedia → **Fake News**

- Four concise, pragmatic tips for recognising disinformation and not spreading it unintentionally

Link: <https://www.bpb.de/kurz-knapp/lexika/das-junge-politik-lexikon/320271/fake-news/>

bundesregierung.de → Menu → **Dealing with disinformation**

- Written description and graphical representation of five pragmatic tips for recognising disinformation, including examining images

Link: <https://www.bundesregierung.de/breg-de/schwerpunkte/umgang-mit-desinformation/falschmeldungen-erkennen-1750146>

bpb.de → Topics → Politics → Media & Digital → Media & Journalism → **Don't give fake news a chance**

- Illustrated overview with concise, mostly pragmatic questions that help to recognise disinformation, including examining images

Link: <https://www.bpb.de/themen/medien-journalismus/desinformation/519731/gib-fake-news-keine-chance/>

bpb.de → Topics → Politics → Media & Digital → Media & Journalism → **Is this article fake?**

- Flowchart suggesting progressively more thorough tips to recognise disinformation, including examples

Link: <https://www.bpb.de/themen/medien-journalismus/desinformation/519735/ist-diese-meldung-ein-fake/>

bpb.de → Topics → Politics → Media & Digital → Media & Journalism → **PLURV - What is it?**

- Graphical representation of a structure, developed by scholars, which gives tips (for each of the 5 letters) for a somewhat more exacting review based on content and argumentation

Link: <https://www.bpb.de/themen/medien-journalismus/desinformation/519734/plurv-was-ist-das/>

Imz-bw.de → Media education → Hate speech and fake news → **How can you recognise fake news?**

- Six tips for recognising disinformation, some of which go deep into the subject matter and include technological approaches

Link: <https://www.imz-bw.de/medienbildung/themen-von-f-bis-z/hatespeech-und-fake-news/fake-news/wie-kann-man-fake-news-erkennen>



Block 4 – Info: Description of the Game

Here are some helpful websites that provide tips on how to recognise disinformation. They vary in terms of their length and practicality. They can help pupils when creating their checklists if they need additional material beyond their research findings.

SWR Fake Finder

- Messages are shared in the game interface of a fictitious chat history, and the pupils have to decide whether the message is a „fake“, „satire“ or „not a fake“.

Link: www.swrfakefinder.de

School SWR Fake Finder

- In the school version, the first thing to do is create a learning space, then select a subject area.
Subject areas:
 - coronavirus pandemic and Covid-19
 - Society, lifestyle and culture
 - Science, nature and the environment
 - Current political events
 - A colourful mix across all subject categories
- In the next step, the articles and solutions are displayed in the view for teachers. The learning space can then be shared with the pupils via a QR code or a link.
- Messages are shared in the game interface of a fictitious chat and the pupils have to decide whether the message is a „fake“ or „not a fake“.

Link: www.swrfakefinder.de/#schule

Want more? A useful collection of online games, apps and quizzes on fake news is available on the website of the Lower Saxony Library Centre. Each game is listed with a brief description as well as its duration and age suitability.

Link: <https://www.bz-niedersachsen.de/fake-news-spiele-und-ideen.html>



Fake News
Block 4 – Courses of Action
Worksheets





Block 4 – WS: My Media Consumption

We use many different media continually in our everyday lives. We often don't even realise we are doing it. This sheet is designed to help you reflect on your own media consumption. Make a cross on the line based on what applies to you. Feel free to add something in the empty column.

How often do you use these media?	Not at all ----- daily	What do you use the medium for?	Entertainment ----- Information
TV	_____	TV	_____
Radio	_____	Radio	_____
Newspapers	_____	Newspapers	_____
Facebook	_____	Facebook	_____
Instagram	_____	Instagram	_____
TikTok	_____	TikTok	_____
Websites	_____	Websites	_____
Books	_____	Books	_____
	_____		_____



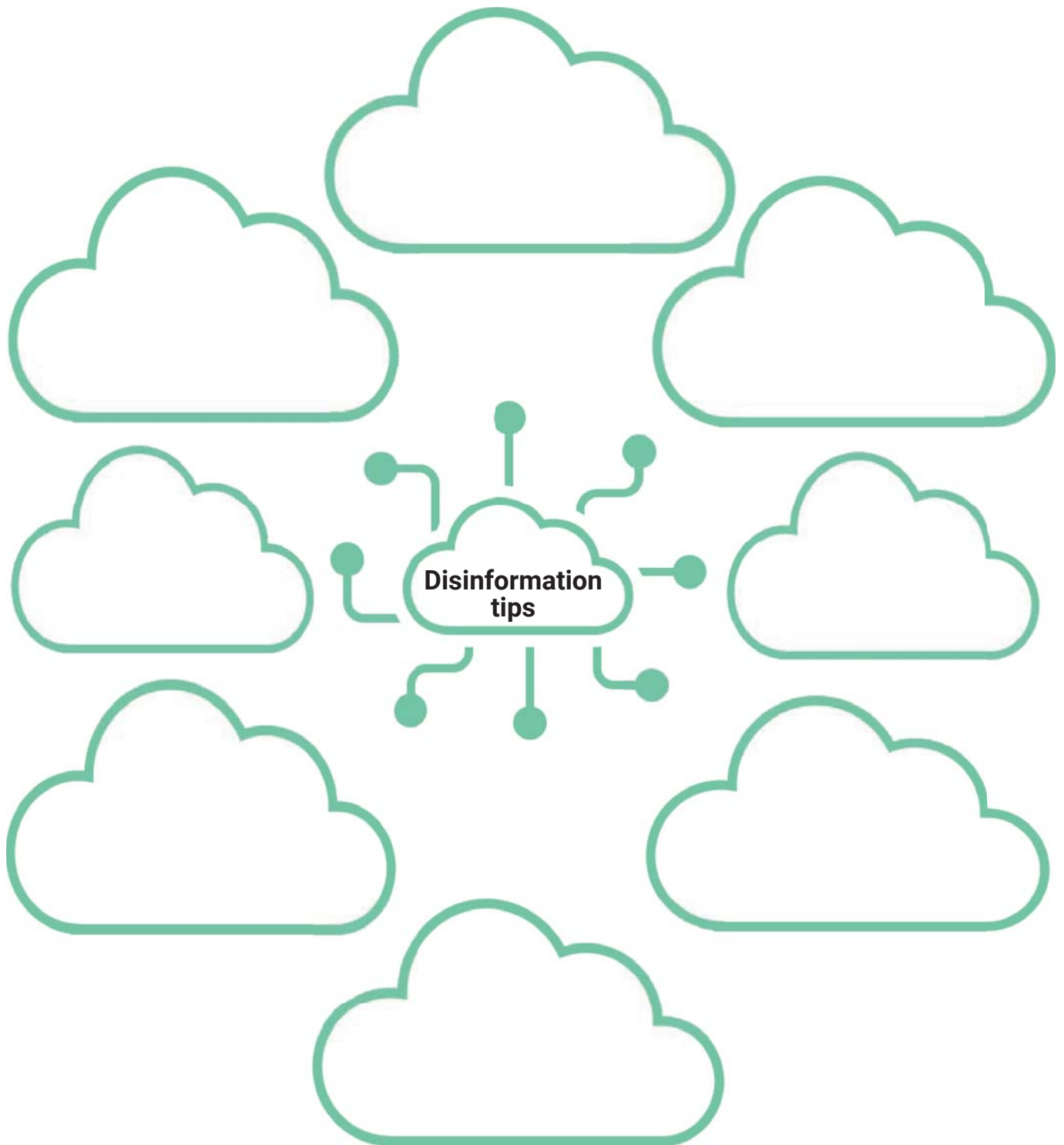
Block 4 – WS: My Media Consumption

To what extent does the medium appeal to your emotions?	Not at all ----- daily	How susceptible do you think the medium is to information?	Entertainment ----- Information
TV	_____	TV	_____
Radio	_____	Radio	_____
Newspapers	_____	Newspapers	_____
Facebook	_____	Facebook	_____
Instagram	_____	Instagram	_____
TikTok	_____	TikTok	_____
Websites	_____	Websites	_____
Books	_____	Books	_____
	_____		_____



Block 4 – WS: Recognising Disinformation Checklist Variant A

Recognising disinformation is not that easy. Many of the suggested tips in this regard are quite time-consuming and impractical. Take another look at your notes from the research. Make a list of tips that will help you recognise disinformation. Select only what is practical in your case and what you would realistically apply. Write the tips in the clouds.





Block 4 – WS: Recognising Disinformation Checklist Variant B

Recognising disinformation is not that easy. Many of the suggested tips in this regard are quite time-consuming and impractical. Take another look at your notes from the research. Make a checklist of tips that will help you recognise disinformation. Select only what is practical in your case and what you would realistically apply. Write the tips in the list.



Block 4 – WS: Reflection and Transfer

Review the last units and answer the questions in the boxes.

What was new for me?

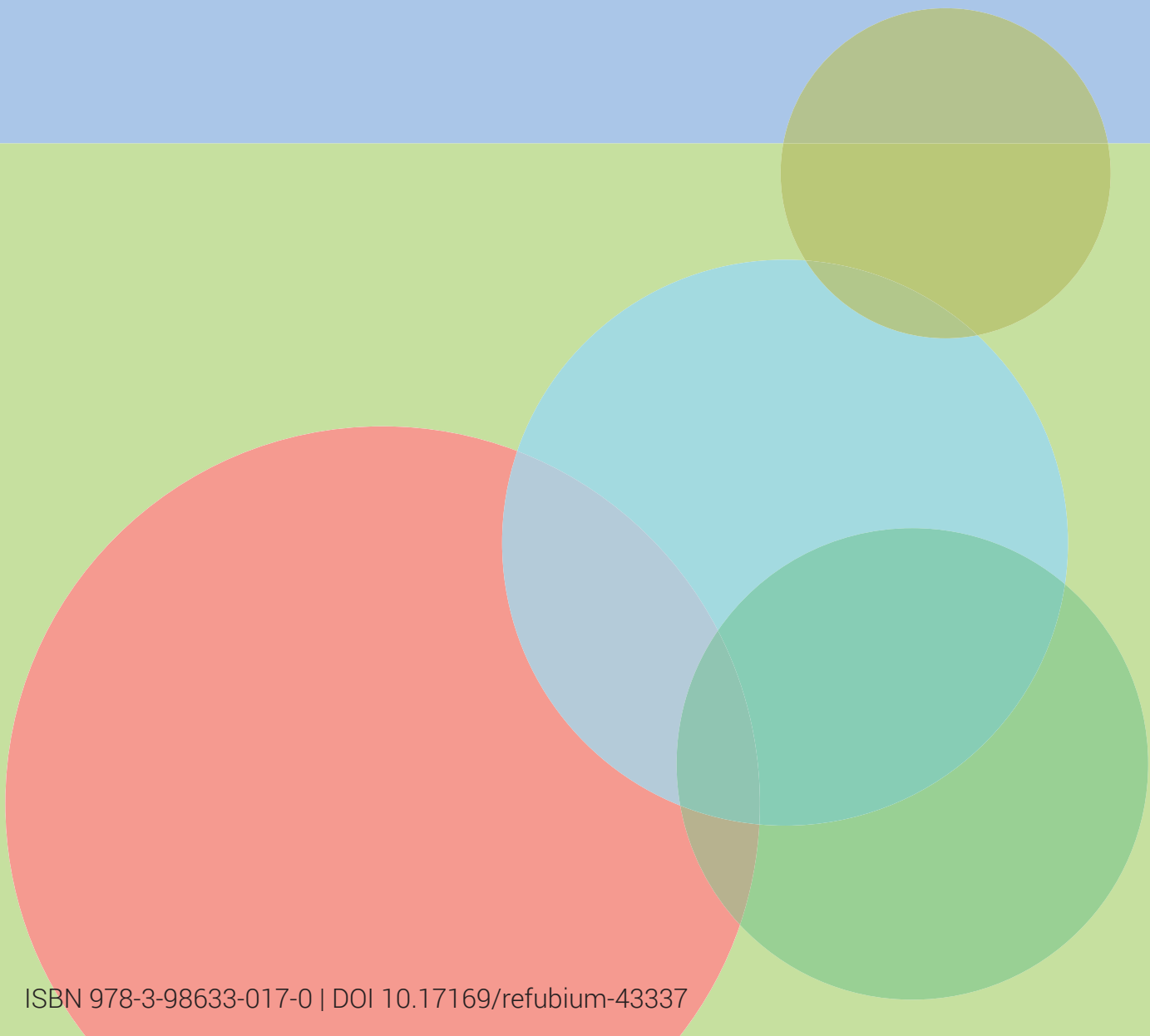
What surprised me the most?

Where can I apply what I have learned?

What do I take with me into everyday life?

What do I take with me for future decisions?

How do I feel when I leave the session?
Has my feeling changed over time?



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