

Module 6



NEGOTIATING THE SOCIAL, POLITICAL OR ETHICAL DIMENSIONS IN SSI

Worksheets



This worksheet is based on the work within the project Environmental Socio-Scientific Issues in Initial Teacher Education (ENSITE). Coordination: Prof. Dr. Katja Maaß, UNIVERSITY OF EDUCATION FREIBURG, Germany. Partners: UNIVERSITEIT UTRECHT, Netherlands; ETHNIKO KAI KAPODISTIRIAKO PANEPISTIMIO ATHINON, Greece; UNIVERSITÄT KLAGENFURT, Austria; UNIVERZITA KARLOVA, Czech Republic; UNIVERSITA TA MALTA, Malta; HACETTEPE UNIVERSITY, Turkey; NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU, Norway; UNIVERSITY OF NICOSIA, Cyprus; INSTITUTE OF MATHEMATICS AND INFORMATICS AT THE BULGARIAN ACADEMY OF SCIENCE, Bulgaria; UNIVERZITA KONSTANTINA FILOZOFA V NITRE, Slovakia.

The project Environmental Socio-Scientific Issues in Initial Teacher Education (ENSITE) has received co-funding by the Erasmus+ programme of the European Union (grant no. 2019-1-DE01-KA203-005046). Neither the European Union/European Commission nor the project's national funding agency DAAD are responsible for the content or liable for any losses or damage resulting of the use of these resources.

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Activity 1.1: Municipality Council



Work in groups





5 mins



Friendlyville is a nice little town, where you can live quite well. Nevertheless, like so many in these times, the city must contend with a number of problems: the unemployment rate has risen recently, and the community revenues are declining. Due to the financial situation, one of the two municipal bus lines has been discontinued. Many of the residents own a car anyway to get around on their daily trips but it is sometimes difficult for low-income people to get around the city. The quality of life in the districts on the outskirts of the city is quite good, but the dust and noise pollution is quite high along the major through roads. The historic main square is mainly used for parking, and in the narrow streets of the city center traffic jams during rush hours. Some small and medium-sized companies provide jobs, but a large part of the inhabitants commute to the capital for work. Along the river that crosses the city, a large green area is currently unused due to the abandonment of an industrial zone. In addition, the opportunity to obtain funding for regional development has arisen. Several ideas have emerged as to how this situation can best be used for the benefit of the city: The construction of a streetcar line to develop the city center, the creation of a new industrial quarter with highway access, bicycle paths, parking garages, noise protection measures, an e-mobility park and much more. A development plan for the city is therefore to be debated in the next municipal council meeting.



Put yourself in the roles of members of the municipality council
Each group member takes over one of the following roles:



Mayor
Economic Councilor
Health Councilor
Environmental Councilor
Social Councilor
Financial officer





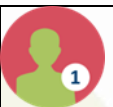

 <p>Individual work</p>	 <p>15 mins</p>
<p style="text-align: center;">Mayor</p> <p>You see your task as creating a balance between the different interests in the city and ensuring continuous development. Your motto is "preserve good traditions and dare to take a step into the future". As a former school director, children and young people are important to you. You want to make sure that the next generation will also find good living conditions in the community, so that the trend to emigration is stopped. You would like to be re-elected in the next election and therefore prefer initiatives that you assume the majority of the population will support.</p> <ul style="list-style-type: none"> • Take 15 minutes to gather information relevant to your area of responsibility. <p>Use this link: https://www.thefirstnews.com/article/lublin-mayor-greens-with-pleasure-as-city-named-countrys-most-eco-friendly-city-22652</p> <ul style="list-style-type: none"> • Formulate a request to the local council about what should happen with the subsidies and the available space. 	



 <p>Individual work</p>	 <p>15 mins</p>
<p style="text-align: center;">Economic councilor</p> <p>For you, a flourishing economy is the basis for a community to remain capable of action and develop in a future-proof manner. It is your concern to create good working conditions and infrastructural framework conditions for local businesses, because only in this way jobs can be created and maintained. In view of the current economic situation, you see the only chance for smaller communities to focus on innovation and thus conquer market niches.</p> <ul style="list-style-type: none"> • Take 15 minutes to gather information relevant to your area of responsibility. <p>Use this link: https://www.mercatus.org/commentary/transportation-mobility-and-economic-growth#:~:text=Greater%20mobility%20results%20in%20better%20job%20matches%2C%20lower,allows%20workers%20to%20cast%20a%20broader%20job-search%20net.</p> <ul style="list-style-type: none"> • Formulate a request to the local council about what should happen with the subsidies and the available space. 	



	<p>Individual work</p>		<p>15 mins</p>
<p style="text-align: center;">Health councilor</p> <p>Your concern is to improve the health of the urban population. In addition to reducing factors of environmental pollution, your concern is to motivate the population to take more exercise in everyday life. You consider the promotion of non-motorized traffic - walking and cycling - to be a simple and effective method of health promotion.</p> <ul style="list-style-type: none"> • Take 15 minutes to gather information relevant to your area of responsibility. Use this link: https://www.betterhealth.vic.gov.au/health/healthyliving/cycling-health-benefits • Formulate a request to the local council about what should happen with the subsidies and the available space. 			

	<p>Individual work</p>		<p>15 mins</p>
<p style="text-align: center;">Environmental councilor</p> <p>The sustainable preservation of the ecological foundations of life is the focus of your efforts. You are convinced that sometimes unpopular measures must be taken to achieve this. You consider the most urgent global issues to be the management of the climate crisis and the containment of the use of fossil fuels. For your community, you are also concerned about preserving green spaces, stopping land sealing, and reducing noise pollution.</p> <ul style="list-style-type: none"> • Take 15 minutes to gather information relevant to your area of responsibility. Use this link: https://climate-adapt.eea.europa.eu/metadata/adaptation-options/green-spaces-and-corridors-in-urban-areas • Formulate a request to the local council about what should happen with the subsidies and the available space. 			

	<p>Individual work</p>		<p>15 mins</p>
<p style="text-align: center;">Social councilor</p> <p>You are concerned about the increasing social inequality in the city. Your fear is that only those who already have a high standard of living will benefit from the city's initiatives. It is your concern to enable socially weaker people to enjoy a good quality of life. You are particularly concerned with the issue of mobility poverty: Families without a car are excluded from many social activities and find it harder to find a job that is accessible to them. However, they are more affected by transport-related environmental impacts due to traffic congestion in cheaper residential areas. Here you want to ensure more fairness.</p> <ul style="list-style-type: none"> • Take 15 minutes to gather information relevant to your area of responsibility. <p>Use this link: https://vienna.impacthub.net/2020/01/02/why-transport-poverty-is-an-issue-of-social-exclusion/</p> <ul style="list-style-type: none"> • Formulate a request to the local council about what should happen with the subsidies and the available space. 			

	<p>Individual work</p>		<p>15 mins</p>
<p style="text-align: center;">Financial officer</p> <p>You are responsible for ensuring that the municipal budget is balanced. For all investments and other expenditures of the community, you give preference to those that are profitable in the long run, i.e. that provide income or savings for the community. All idealism in honor, but what ultimately counts are the hard facts and figures. To neglect this would seem to you to be extremely irresponsible.</p> <ul style="list-style-type: none"> • Take 15 minutes to gather information relevant to your area of responsibility. <p>Use this link: https://bathtrams.uk/cost-of-installing-trams/</p> <p>Formulate a request to the local council about what should happen with the subsidies and the available space.</p>			

 <p>Work in groups</p>	 <p>30 mins</p>
<p>a) Each officer suggests a measure for the municipality and the council debates about these suggestions.</p> <p>b) Draw up a list of measures on which there is agreement, which lead to controversy and which data are still needed for a decision.</p> <p>c) Due to limited resources, the local council has to decide on two initiatives that should be pursued further. Can you reach an agreement?</p>	

 <p>Individual work</p>	 <p>5 mins</p>
<p>Reflect:</p> <p>Which perspectives can you put yourself in the most easily? Which ones are difficult?</p> <p>Are there perspectives that you think should take precedence over others? Why?</p> <p>What insights and information would you need to better understand unfamiliar perspectives?</p>	



Activity 1.2: My mobility profile



Individual Work



20 mins

The basis of traffic-related planning is the findings of traffic research. A common method for recording individual traffic behavior is the survey of the mobility profile. This involves recording all a person's routes and the means of transport used for them.

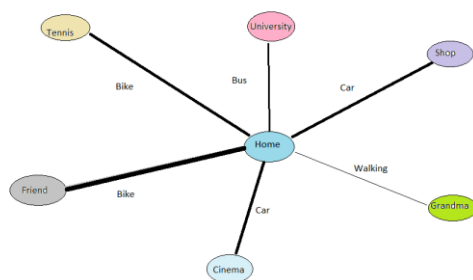
The data collected in this way characterize the social radius of action and the jobs and activities made possible by it. They are also the basis for modeling the traffic situation in a region, e.g., in the form of the "modal split".

a) Think about the paths you take in your everyday life.

b) List all your paths you can think of and put them in a table. Structure the table according to the following categories:

- purpose
- distance
- frequency
- means of transport

c) Draw a mind-map using these data:



- Set your home into the center of the sheet
- Surround it with dots that mark the places relevant for your life
- Connect your home with each of the places- the more often you visit the place, the thicker the connecting line is
- Fill in the means of transportation you use for these ways



My paths			
Purpose	Distance	Frequency	Means of transport
	>5 km; 5-10 km; 10-100 km, > 100 km	several times a day, daily, several times a week; weekly, several times a month; irregular	walking; bicycle; scooter/ skateboard; moped /motorbike; car (self-drive); car (passenger); bus; tram/metro; train; aeroplane; others
work/education			
getting necessary supplies			
health			
family life			
social contacts			
sports; culture; hobbies			
volunteering			
recreation			
others			





Work in groups



30 mins

Compare your diagrams and explain your mobility decisions to each other. What are the pros and cons for each means of transport?

b) Calculate the "modal split" of the group.

The Modal Split

In transport statistics, the so-called "modal split" refers to the distribution of the transport volume over different means of transport (modes). It is determined by adding up the number of all routes of the respective population group and calculating the percentage share of the individual means of transport.

Total number of ways with this means of transportation in your group		Modal split in %
Walking	A	=A/L
Bike	B	=B/L
Scooter/skateboard	C	=C/L
Motorbike/Moped	D	=D/L
Car/passenger	E	=E/L
Car/selfdrive	F	=F/L
Bus	G	=G/L
Tram/Metro	H	=H/L
Train	I	=I/L
Aeroplane	J	=J/L
Others	K	=K/L
Sum of all ways	L	





Activity 1.3: Mobility attitudes



Work in groups



60 mins

a) Divide into 4 groups. Each group will appoint a moderator.

Each group will discuss one of the following questions:

- How far do scientific, social, political, and ethical dimensions influence your attitudes and decisions?
- How would you describe your attitudes and behavior regarding mobility? How much is this topic present in your everyday life?
- What role do emotions, experiences, the local environment, and scientific information play in your mobility decisions?
- What influences might lead you to change your mind concerning mobility topics.

b) Start four consecutive rounds of conversation at small tables .
Write down your conversation on a flip-chart paper.

c) After about 15 minutes, the participants move to other tables, only the moderator remains and introduces the group members into the results of the previous group.

d) Finally, the moderators give a short summary about the course of the discussion at their table

Table 1: Discuss this question for 15 minutes and write your thoughts on the flip-chart-paper:

How far do scientific, social, political and ethical dimensions influence your every-day attitudes and decisions?

Table 2: Discuss this question for 15 minutes and write your thoughts on the flip-chart-paper:

How would you describe your attitudes and behavior regarding mobility? How much is this topic present in your everyday life?

Table 3: Discuss this question for 15 minutes and write your thoughts on the flip-chart-paper:

What role do emotions, experiences, the local environment, and scientific information play in your mobility decisions?

Table 3: Discuss this question for 15 minutes and write your thoughts on the flip-chart-paper:

What influences might lead you to change your mind concerning mobility topics?



Activity 1.4: Local mobility situation



Homework



90 mins

Try to give an insight to actual mobility topics that are discussed in your city (or in larger cities in your district). Consider for example the following topics:

- The accessibility by public transport
- Noise pollution
- Traffic safety for pedestrians and cyclists
- The share of traffic areas in the total area
- The parking situation

For your recherche it might be useful to search the websites of your local

- Environmental Office
- Traffic Office
- Automobile clubs
- Cycling lobbies
- Environmental protection association
- newspapers

Describe which data sources you have used for this. Did you also collect data on your own?



Activity 2.1: Identify aspects in mobility issues related to mathematics and science education



Group work 3



60 mins

- a) Present the results of your homework to each other.
- b) Also look again at the steps and results of activities 1.2, 1.3 and 1.4.
- c) Make a list of all the mobility-related topics you find in a) and b) and the necessary information or skills to deal with
- d) Search the curricula of the subjects you are going to teach.
- e) Find touchpoints between the addressed mobility topics and the contents of the curriculum

Such touchpoints may be:

- The topic is explicitly mentioned in the curriculum
- The problem requires competencies that are stated in the curriculum (e.g., mathematical methods)
- The topic illustrates a principle that is addressed in the curriculum (e.g., ecological interactions)
- Subject information that also represents curriculum content is required to address the topic (e.g., data on different tree species)
- The topic addresses cross-curricular teaching principles such as environmental education or political education





Activity 2.2: Mobility related sustainability and citizenship education



Group work 3



45 mins

SUSTAINABLE DEVELOPMENT GOALS






Choose one of the following goal combinations:

- 1,5,12
- 2,7,13
- 4,9,11
- 5,8,15

b) Search for aspects in how far the management of the mobility situation contributes to achieving these goals

c) Draw a mind-map containing the goals and the mobility aspects.

c) Consider to what extent these aspects are related to each other. Which are in contradiction to each other, which are mutually beneficial?

	<h3>Activity 2.3: Locally discussed mobility issues</h3>	
	<p>Group work +</p>	 <p>60 mins</p>
<p>a) Search local newspapers for reports on mobility-related problems.</p> <p>b) Select a problem and consider who the different stakeholders in this matter might be</p> <p>c) Write two letters to the editor from different positions (e.g., gas station owner and parent representative of the kindergarten). Try to imagine, what the political, social, and ethical worldview of these persons could be like.</p>		





Activity 3.1: Analysing an example for a mobility related SSI lesson



Group work +



30 mins

Discuss the teaching example according to the following questions:

- For which school grade level is this task suitable?
- Which subject and curriculum content can be linked to it?
- What prior knowledge do the students need to complete the task?
- What support should be given by the teacher?
- What further steps can be taken in class?



Teaching Example: “Tram to St.Peter”

1.) Introduction:

St. Peter is a rapidly growing district in the periphery of a capital city. More than 10,000 people now live in the three largest housing estates. So far, the area is inadequately connected to public transport, thus the car density is very high. Therefore, the city government is planning to build a tram line to the area which connects it



within 15 minutes to the city center. Many residents are in favour of the project, but there is also fierce opposition. Parking lots will be lost along the planned route. In addition, the route touches a nature reserve for about 200 meters. The construction work will require the felling of about 30 trees, mostly willows, ash trees and hornbeams. Now a referendum is to be held to decide on the construction of the tram line.

2.) Tasks for the students:

a) Gather information. Focus on the following questions:

What are the environmental effects of trees?

Are there species that are better adapted to an urban climate?

What time does it take a tree to grow until it has effects on the local climate?

What are the ecological effects of reducing car traffic by 25%?

b) Discuss with your seat neighbour: How would you decide?

Does the benefit of reducing car traffic outweigh the disadvantages? How great is the damage caused by the felling of the trees? Are there compensatory measures, e.g., reforestation, that can offset the negative impact or even improve the ecological situation? Who are the winners or losers in the case of tram construction?

c) Present your decision to the class

d) Write a documentation: How did you come to your decision?

Describe your decision-making process.

What sources were the basis for your considerations?

How did you weigh the arguments for and against the tram?



Activity 3.2: Development of SSI lessons based on local mobility issues



Group work +



60 mins

- a) Select one local mobility problem out of activity 2.3
- b) Choose an age group and a subject
- c) Define the desired curriculum goals and competencies you want to cover with this lesson
- d) Decide on one of the following teaching formats:
 - a) direct instruction with a Socratic dialogue
 - b) inquiry based learning
 - c) outdoor learning
- e) Formulate a context description which indicates different perspectives of the problem and pose a concrete question for discussion.
- f) Provide information sources or instructions for the children's own surveys (e.g., experiments)
- g) Design the teaching process and work materials



Our mobility SSI Lesson	
Designed by:	
Title	
School grade	
Subject	
Adressed curricular goals and competencies	
Mobility topics	
Introduction story and main question	
Tasks for the students	
Information sources for the students	
Methods to support the learning process	

Creativity Techniques

These techniques can help you develop ideas for narrative settings of SSI topics and interesting classroom activities

"Lexikon"

To invent an exciting frame story, you can use the creative technique "Lexikon": You will need a children's encyclopedia. One group member opens any page in the book, another one names a number between 1 and 5. The entry that is written on this page is noted down. When each group member has found a word in this way, the group tries to find a story on the topic in which all the terms related to the mobility topic appear.

6-3-5 method (6 participants, 3 ideas each, 5 times sharing)

Step 1: Each participant receives a prepared worksheet. The worksheet consists of six rows of three columns each.

Step 2: Each of the 6 participants now writes 3 ideas and enters them in the fields of the first row.

Step 3: After 2 minutes, the worksheets are passed clockwise to the next neighbour.

Step 4: Each participant should now try to take up the ideas already mentioned, add to them, or develop them further. He or she enters his or her three new ideas on the next free line.

Step 5: Now the passing cycle is repeated until the last line of the worksheet.

In this way, you will receive a multitude of ideas in a short period of time.



Activity 3.4: Reflection



Single work



15 mins

Recall the activities and discussions you experienced in this module. What thoughts, concepts, and attitudes do you consider valuable to you personally? What specific methods and materials would you like to use directly in the classroom?

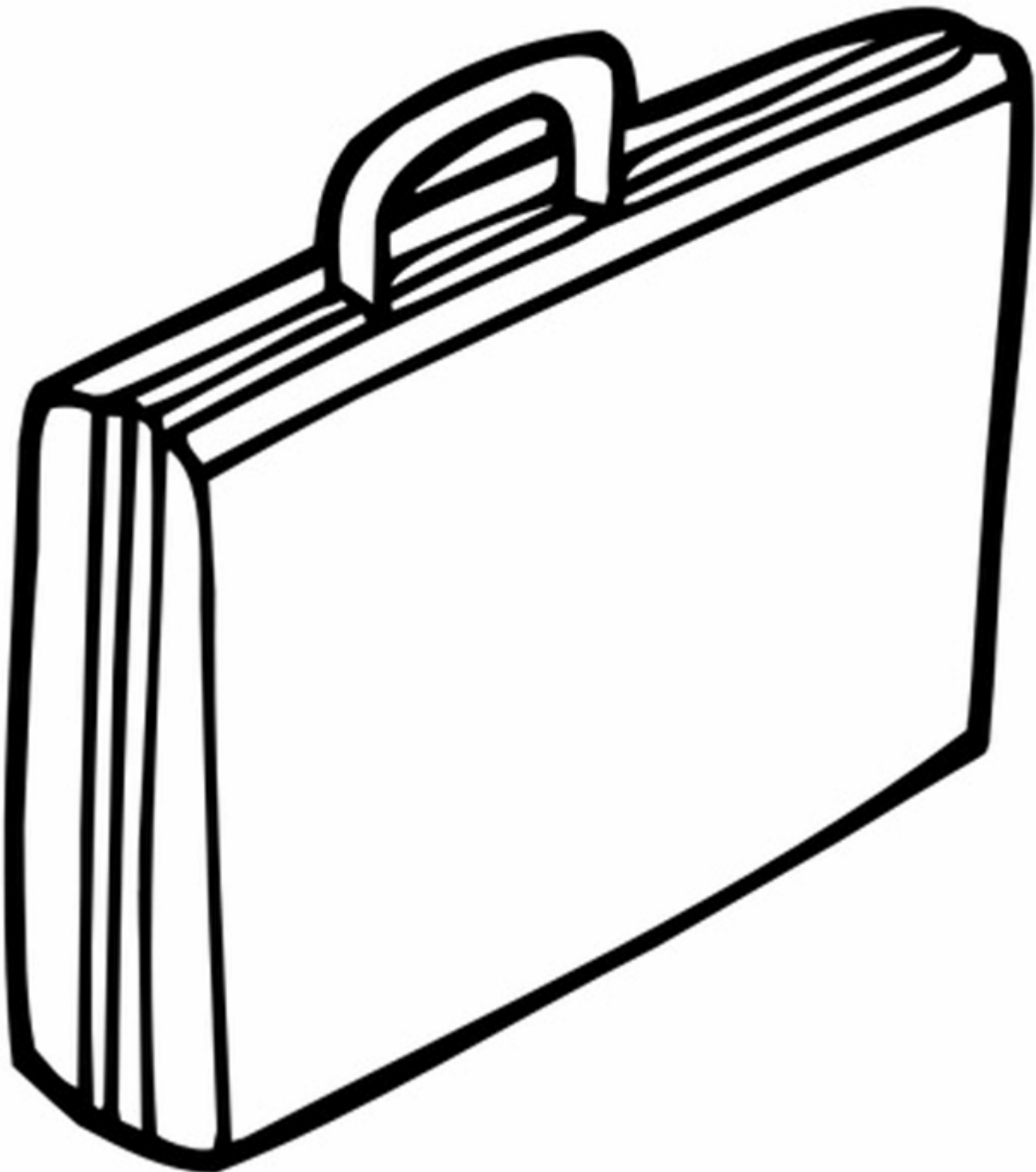
Write down your thoughts on the two reflection sheets.

If you want, you can exchange your reflections with others.





In your CLOSET, you note all those insights and thoughts about SSI teaching and its political, social and ethical dimensions that you have gained in this module, and you want to remember.



In your BRIEFCASE, you can note all the materials and methods from this module that you want to take with you into the classroom