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Teaching methods and tips for embedded food systems education

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ISARA,
Lyon
France



Teaching methods and tips for embedded food systems education

Alexander Wezel and Aurelie Ferrer (editors)





Foreword

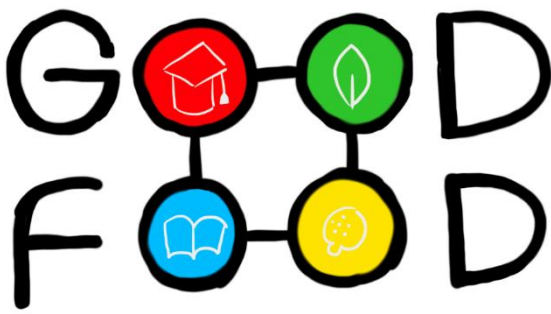
This booklet provides tested and successfully implemented innovative teaching concepts and practices and teaching tips for embedded food systems education. They were developed based on the input collected from workshops with teachers in different European universities. The examples and tips include the description of the teaching practices or concept regarding skills and resources needed, methods to be used, suitability for study programme level(s), needed prerequisites of students, and obstacles to overcome – if identified. Target groups are lecturers and teacher in higher education or peoples working in vocational training.

We hope to provide a useful guide who to enrich teaching in embedded food systems. For more details and practical information, the authors of the different teaching tips can be contacted for sharing about the teaching experience.

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E-learning course to increase understanding of various dimensions of Embedded Food Systems

Description of teaching tool and objectives

The e-learning course "Food Systems Embedded in Territories" has been developed by the lecturers of the GOODFOOD consortium, and tested within the GOODFOOD project. It begins with an explanation of "Embedded Food Systems" notion, followed by diving into its various dimensions, related to the food chain, production, processing, consumption, health, environment, policies, economy etc. The course is supported in the following by short e-lectures provided by international groups of lecturers, on-line quizzes, reading materials and questions posted on the interactive discussion forum. Study materials are being gradually uncovered during the course, which allows students to focus on one area at a time. Learning Group meetings are regularly organized among students, in order to motivate them to jointly discuss the questions posted by lecturers on the discussion forum, and to reflect on the course contents. Three interactive workshops organized during the e-learning course help the students to get a better understanding of various aspects of the Embedded Food Systems, to get acquainted with the rich picture as a tool to work with various aspects of a food system embeddedness, and finally to reflect on the relation to territories for a diverse and resilient food system. During the course, students, in groups, have a task to select one food product (case study), ideally typical for the territory they come from, and to analyze it, looking through the lenses of various Embedded Food System dimensions.

Objectives of the tool:

- To develop students' understanding of the embedded food systems concept and its various dimensions and perspectives, as well as their role in the overall food system sustainability.
- Through the task related to the analysis of a selected case study product - to apply the given online lectures content and reflect on whether and to what extent the selected products are related to the notion of embedded food system.
- To stimulate students exchange, interaction, discussion (despite the on-line form of the course).
- To encourage students to apply a holistic approach to the food system, critical analysis, and to handle complexity.
- To get students engaged within a team work, and to enhance their management and communication skills.



Audience and pre-requisites for students

The teaching tool is targeted mainly to MSc level students, but could also be applied for PhD and BSc levels. Basic knowledge about food systems is a pre-requisite for students to be able to follow successfully the course.

Teaching method

The course lasts 9 weeks, and is divided into 5 topics. Each of the topics includes 2-4 video lectures of 10-15 mins, quizzes after each lecture, reading materials provided by the lecturers and questions posted in the discussion forum. The video lectures (10-15 mins each), quizzes and reading materials support the students to fulfil their weekly tasks related to their selected case study food products.

Five topics and on-line lectures:

Topic 1: General introduction (1 week)

- Food system – components/structure/definitions
- Concept(s) and definitions/dimensions of embedded food systems
- How Food became a commodity

Topic 2: Products (2 weeks)

- Different types of production systems: conventional, organic, biodynamic
- Agroecological practices
- Processing (various aspects)
- Product: quality and safety of organic food

Topic 3: Food chain and stakeholders (2 weeks)

- Stakeholders - relational aspects within the food systems
- Food Distribution from Wholesale to Retail and Horeca
- Tool video on Rich Picture

Topic 4: Consumption and policies (2 weeks)

- Taste, consumers perceptions, food culture (incl. gender, religion, ethnicity, age, geography, globalisation, taboos, ... etc.)
- Nutrition, sustainable diet, health
- EU food policy & policy on local, regional, traditional, quality products
- Social justice & food sovereignty
- Food governance: how food has re-emerged on local authorities agendas

Topic 5: Relation to territories for a diverse and resilient food system (1 week)

- Relation to territories for a diverse and resilient food system
 - Diversity and resilience – what type of diversity and resilience exists in food systems
 - Spatial, social, economic, cultural, environmental aspects of food systems
 - Comparison of the methodology to assess sustainability of the food system – TAPE, OASIS + intro on what is diversity; what is resilience.



Teaching tool in a concrete situation

In our case the tool was used 3 times, and various modifications were tested within the GOODFOOD project, followed by a collection of participants' feedback. The outline of the course described here is already a "tested" version, taking into consideration the participants' feedback, and all incorporated improvements.

All lectures, quizzes, reading materials and discussion forum questions, as well as other e-learning supporting documents can be found in the "O2 – e-learning course "Food Systems Embedded in Territories" available in the "Outputs" -> "E-learning materials" section of the GOODFOOD project website: <http://goodfood-project.eu/>.

Operational and organisational recommendations



The course can be based on any available e-learning platform.

The lecturers' important tasks are:

- to enroll the students, to divide them into groups
- to present the courses, the platform, the student obligations and tasks
- to keep students active on the platform and to guide them through the 9 weeks of the course (moderation of forum discussion, check completion of group work reports...)
- to organize 3 interactive workshops

The objectives of the course should be clearly defined and presented to the students at the beginning, together with the goals of specific course topics.

Strengths and constraints of teaching tool

This teaching tool is powerful and effective but the design and organisation are crucial for its successful implementation. Its main strength is that it can be organized on-line, which makes it possible to use it for international groups of students (students potentially located in different countries).

But the on-line format also creates some important constraints. Keeping students constantly engaged and active on the platform is a challenge, and is crucial for the success of the course. It can be enhanced by regular activity of lecturers on the platform, especially in the discussion forums. Similarly, creating working groups from the beginning and facilitating their contacts and cooperation is very important. It can be monitored by a regular check of students' meeting reports which should be submitted on the platform after every meeting.

The on-line course can be organized as an independent activity, but can also serve as a preparatory stage/introduction to a Summer Course or a study trip, where students, after getting familiar with embedded food systems notion, can experience food systems and dive into more practical analyses carried out on-site. The effectiveness as well as students' satisfaction from this activity is much greater in case of such a combined, blended format.





Case Studies as didactic tool

Description of teaching tool and objectives

A case study is a detailed study on a particular real-life situation or subject, such as an event, phenomenon, organization or individual. In this teaching method, the learners are presented with a specific case that reflects the real world. They are then encouraged to analyze the case, identify key issues or problems, propose possible solutions and make decisions based on the available information. The case study teaching method promotes critical thinking, problem-solving skills and active learning by shifting from passive listening to active participation. The students are actively involved in the learning process as they explore the case, ask questions, conduct research, discuss with their colleagues and instructors and develop their own perspectives. By examining real-world cases, students can understand the complexity of the actual situation and gain insights into the challenges faced by professionals in their respective fields.

Case studies can be documented from various sources including textbooks, academic journals, online databases, specific publications. They can be presented in written form, as audio or video recording, or as multimedia presentations.

Objectives of the tool:

- provides students with a relevant opportunity to see theory in practice;
- engages students in research and reflective discussion;
- allows students to develop realistic solutions to complex problems;
- develops analytic, communicative and collaborative skills along with content knowledge;
- creates an opportunity for students to learn from one another (collaborative learning);
- supports information gathering and analysis;
- implies time management skills;
- develops presentation/public speaking skills.



Audience and pre-requisite for students

Certain prerequisites should be considered to effectively use case studies as a teaching method:

- Clear learning objectives; Instructors should define clear objectives for the case studies;
- Adequate subject knowledge: Teachers should possess a solid understanding of the subject matter covered in the case study;
- Active learning environment. Case studies are most effective when students actively participate in analyzing and discussing the cases;
- Classroom management skills: Case studies often involve group work and discussions. Effective classroom management skills are necessary to facilitate productive and inclusive discussions, manage time effectively, encourage participation from all students, and maintain a positive and respectful learning environment;
- Access to resources: Ensure that students have access to the necessary resources to analyze the case effectively. This may include textbooks, academic articles, online databases, or other relevant materials;
- Evaluation and feedback mechanisms: Establish appropriate evaluation and feedback mechanisms to assess student learning and provide timely feedback.

Case STUDY– as a method

The process of developing a case study teaching programme typically involves several stages, as described below:

1. **Selection of the case.** The case should be relevant for the learning objectives and research goals. Thus, the subject, problem or scenario to be explored should be considered complex and rich enough for analysis.
2. **Collecting information.** This stage may involve reviewing literature, collecting data, conducting interviews, or examining relevant documents.
3. **Assessment of the case.** The collected information and the key issues, problems, or challenges presented in the case must be analyzed. Relevant theories, frameworks, or concepts to understand the underlying factors contributing to the situation are applied.
4. **Development of a structure.** The case must be organized in a logical and coherent structure that commonly includes an introduction, background information, analysis and conclusion.
5. **Presentation of analysis.** The analysis should be focused on the identified issues and their causes and be based on supporting evidence, data and examples.
6. **Presentation of alternative solutions and making recommendations** based on the analysis and evaluation.
7. **Formulating the conclusion** by summarizing the main points of the case study.
8. **Editing and revising** the text included in the case study.
9. **Formatting and referencing** according to the specific guidelines provided by the instructor.

Teaching tool in a concrete situation

The tool can be applied in different situations and programs. One way is to use the tool in a 1 week course where case studies allow the students to explore the thematic of the course and connect the theoretical knowledge with real-life experiences. It is also possible to build a whole programme around case studies. In this case each student selects their own case study which is used to research and explore the different subjects over the program in regards to it, best in exchange and collaboration with the people there.



Operational and organisational recommendations

When it comes to writing a case study, there are several operational and organizational recommendations to consider. These recommendations focus on the process and structure of creating the case study. Here are some key considerations:



- Establish a clear plan and timeline for writing the case study;
- Ensure that you collect all the relevant information and data necessary for the case study. Conduct thorough research, explore different sources, and consider both qualitative and quantitative data;
- Acknowledge and consider different perspectives and alternative viewpoints in your analysis. Present a balanced view by discussing potential counterarguments or limitations;
- Back up your analysis and recommendations with relevant evidence, data, or examples;
- If possible, involve relevant stakeholders in the case study process. Seek their insights, perspectives, and expertise to ensure a comprehensive understanding of the case;
- After completing the initial draft, revise and proofread the case study thoroughly. Check for coherence, logical flow, and clarity of writing;
- Consider seeking feedback from colleagues, peers, or instructors to ensure the quality and accuracy of the final document.

Strength and constraints of teaching tool

The most important **strengths** of the case studies refer to the **emphasis on the context**, the method being capable of making the transition from theory to practice by presenting real-world situations and scenarios but also to the **integration of interdisciplinary knowledge** because the students need to use knowledge from various disciplines, encouraging the holistic understanding of complex situations.

Another strength worth to be mentioned is the **active learning** that fosters a deeper understanding and enhances critical thinking skills. Case studies require students to analyze complex situations, identify key issues, and propose solutions. This cultivates critical thinking skills, problem-solving abilities, and the capacity to evaluate multiple perspectives.

As in the case of any teaching method, there can be identified a set of constraints that can be however addressed by instructors by careful case selection, providing guidance, and fostering a supportive learning environment.

Some of the most relevant **constraints** are: **time management**, case studies being considered as time-consuming due to the multitude of activities that a student must perform (collect and analyze information, engage in discussions, decide on solutions, etc); **ambiguity and complexity** of data due to missing or incomplete information; **standardization and generalization** given the fact that each case study is unique.



Rich Picture



Description of teaching tool and objectives

The Rich picture is an innovative and multifaceted approach to the teaching/learning process that aims to enhance learning and problem-solving skills by using visual representations. It provides a holistic view of complex situations and encourages learners to think critically and explore interconnected relationships.

At its core, the rich picture method uses a visual diagram or picture to represent a real-world situation, issue or problem. The drawing incorporates different elements such as people, objects, symbols, icons, and text, which are all used to illustrate graphically the situation. It is called a Rich Picture because it illustrates the richness and complexity of a situation.

The Rich Picture acts as a catalyst for discussion, analysis, and interpretation. It encourages learners to identify and understand the multiple perspectives, stakeholders, and factors involved in the system. By examining the interdependencies and interconnectedness among the elements, learners gain insights into the complexities of the situation, leading to a deeper understanding of the whole situation.

The method promotes active learning and critical thinking. Learners are encouraged to reflect on the rich picture, ask questions, and engage in dialogue with their colleagues and teachers. Due to this collaborative process, they can discover hidden relationships, identify certain patterns and generate hypotheses about the causes and effects of a complex situation.

Objectives of the tool:

- It provides a better understanding of complex systems and issues by presenting them in a visual manner;
- It encourages learners to think critically and use their creativity.
- It promotes systems thinking allowing the students the possibility to perceive the interconnections among different element and understand the implications of actions and decisions within a system.
- It facilitates the communication and collaboration among students.
- It encourages decision-making and problem-solving.
- It supports reflection in the phase of creation and analysis of the Rich Picture.



Audience and pre-requisite for students

The teaching tool can be used by both BSc and MSc students. Some important pre-requisites are: a basic understanding of the subject or system being depicted in the Rich Picture, the capacity to think critically and assess complex information, creativity and imagination, capacity to work in teams, willingness to reflect.

Teaching method/tool

The Rich Picture method typically involves several stages: **1. preparation**, **2. drawing**, **3. analysis**, **4. reflection** and **5. discussions** on the Rich Picture.

1. The preparation phase consists in identifying and defining the context or problem that will be depicted in the Rich Picture. This includes the identification of the system, its boundaries, stakeholder and any specific issues or challenges to be addressed. In this phase, it is also performed the collection of data about the system or the problem. This may include group discussions to gain a comprehensive understanding of various elements and relationships among them.

2. Drawing. This is the creative phase where the learners represent (by using symbols, icons, diagrams, or any other visual representation technique) the identified elements and relationships in a visual manner. The focus is on capturing the interrelationships and dynamics of the system in a holistic manner.



3. Analysis. Once the Rich Picture is finished, the learners engage in a critical analysis and interpretation of the visual representation. They examine the relationships and identify patterns. This stage involves group discussions, brainstorming and considering alternative perspectives.

4. Reflection. Learners reflect on their own thinking, biases and mental models. They evaluate the effectiveness of the Rich Picture in capturing the complexity of the system. This stage may involve the revision of the Rich Picture based on the feedback and insights gained during the analysis.

5. Discussions. The Rich Picture serves as communication tool for sharing insights and facilitating discussions among learners and stakeholders. This stage involves the presentation of the RP to others, explaining the included elements and the relationships among them.

Teaching tool in a concrete situation

The Rich Picture is used in an action learning module of 6 months (2 meetings per month) designed within the Nextfood project. The students (both highschool and university students) collaborate in mixed groups of 4-5 persons to draw a Rich Picture to address the issue of food waste in a restaurant or other food service establishment.

The learners collect info on the restaurant operations (food preparations, storage, waste management practices), they conduct interviews with the staff, review data on food waste. They also identify the key factors that contribute to food waste (overproduction, inaccurate portioning, spoilage, etc).

Learners create a Rich Picture that visually represent the identified factors and relationships among them.



Operational and organisational recommendations

When using the Rich Picture method, there are several operational and organizational recommendations to consider. Here is a set of valuable prompts that the teacher can offer to the student:

- A rich image is an attempt to put together everything that might be relevant to a complex situation, **it is never complete and captures only a moment in time**;
- To help interpret a situation, **choose symbols, scenes, or images that represent the situation**.
- **Use as many colors as you feel** are necessary;
- **You should not seek to impose any style or structure on your drawing**. Place the elements on the sheet of paper wherever your instinct tells you. At a later stage, you may find that the placement itself has a message for you;
- **Avoid writing too much**, either as a comment or as a word bubble that comes out of people's mouths (but a short summary can help explain the graph to other people).

Strengths and constraints of teaching tool

Some of the **strengths** of Rich Picture consist in the fact that:

- It provides a concise overview of complex systems;
- It is not restricted by notation;
- It is an efficient and simple process from rough to final; it can be used by anybody and needs only a few resources;
- It is a creation process that helps to improve understanding;
- It uses symbols and metaphors that assist in developing a shared understanding;
- It is flexible and requests openness;
- It adapts to the will and purpose of the learners;
- It is a vehicle for opening lively discussions.



One of the most important **constraints** is the process of creating and analyzing rich pictures that can be time-consuming and require significant effort, particularly when dealing with complex systems. It involves data collection, analysis, and iterative refinement. The method may require a substantial investment of time and resources, which can be a constraint in certain educational or organizational settings.



Terroir - interactive market and shop survey on terroir products during excursions

Description of teaching tool and objectives

This teaching tool is based on a student group work. The approach focuses on the topic of food systems in a certain region in using a market and shop survey on terroir products during excursions. The idea is to tackle the topic of embedded food systems by focusing on a key item of such system: the terroir product (see definition below). The terroir product is still a diffuse notion but it relates to a product locally produced, typical of a territory and/or related to a specific (local) know-how of production, and eventually processing. If the notion “terroir product” is not existing or known in the country of study, it can be referred to with the term “local”, “regional” or “typical” product. Although these notions have not an unequivocal definition, and are often not consistently known or used among the different stakeholders of the food system, they provide a good common basis to be used for the teaching tool.

By working on such an item as terroir products, students get to handle different concepts linked to embedded/territorial food systems. It also engages them in building of knowledge that is not already accessible and stimulates a process of action learning.

Objectives of the tool:

- To handle a key notion related to the embedded food system and the concepts associated to it.
- To get students in contact with stakeholders of the territory, of the food system and interact with them.
- To experience from inside the food system of a territory, the different components and scales to be looked at.
- To get students from listening and observing to taking action and to allow active learning and building of knowledge.
- To encourage them to adopt a holistic approach in their analysis and to handle complexity.
- To get them involved and engaged within a team work and enhancing their management skills.



Audience and pre-requisite for students

The teaching tool is targeted to MSc level students, but could also be used adapted for BSc level. Basic knowledge about food systems, food distribution, quality food is a pre-requisite for students to be able to follow successfully the course. Also, minimum knowledge on how to carry out a survey and prepare a questionnaire would be important.

Teaching method/tool

The whole tool consists of 3 phases: **1. preparation**, **2. data collection** on the field (on markets, shops...), **3. data analysis and synthesis**.

All students participate in all phases. The duration of each phase and of the whole process can be adapted to the structure of the curriculum. The preparation phase duration should not be underestimated as the definition of the goals of the survey and the design of the questionnaire(s) is key for the learning success. Data collection can be done during one field trip (one day or more) or can be done on a longer period according to the opportunities of data field collection within the teaching programme.

- 1. Preparation:** According to information available in the literature, students try to build a first definition of what is a terroir product (or “what is a local / regional / typical product” depending of the country). They perform literature and internet research on terroir (local/regional/typical) products in the region including potential quality labels. They prepare a questionnaire or different questionnaires depending of the stakeholders to be interviewed such as producers, vendors, retailers, and consumers, and organise their data collection. They contact some stakeholders to fix interview dates. They elaborate a research plan with research questions related to the notion of terroir product. Some meeting dates with stakeholders might be fixed before by teachers to assure that key stakeholders are available during phase 2.



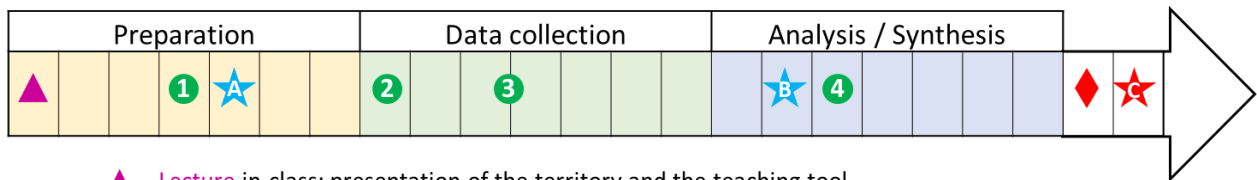
- 2. Data collection:** Students interview the stakeholders on farmers markets, in shops (specialized or not, small or large: bakery, meat shops, producer shop, supermarkets, other) using the prepared questionnaires. Students should favour a diversity of shop types and of stakeholders to have a holistic approach to investigate the food system.
- 3. Data analysis and synthesis:** Students analyse the data collected, complement them with data from literature and internet research. Then they discuss the results in the light of the notion of terroir product (or local / regional / typical product) and their specific research question. They write a report and defend their work through a group presentation.



Teaching tool in a concrete situation

In our case the tool is used within a 3 weeks module. Each phase lasts 1 week (5 working days). Students are in groups of 4 to 8 supervised by a teacher. A presentation of the exercise and of the territory is done by the teacher during phase 1.

Different meetings and documents to be delivered to the supervisor are scheduled to guide students in their learning process. The data collection (phase 2) includes 5 days in a row on the field / territory to collect data. During these 5 days excursion, the student group has a minibus they drive themselves to meet different stakeholders.



▲ **Lecture** in-class: presentation of the territory and the teaching tool

① **Mandatory meetings** with the supervisor of the student group

★ **Documents**

(A) **Framework paper**: Context, topic, research questions, material and methods including questionnaire(s) and strategy of interviewer management

(B) **Progress paper**: Context, research questions, hypothesis and detailed outline of report

(C) **Final report**: Introduction, Research questions, Material & methods, Results, Discussion, Reference list

◆ **Oral presentation** in classroom (presentation, question, debate)

Operational and organisational recommendations



The research questions need to be clearly defined. It is recommended that several groups of students work in parallel with different research questions that, despite all related to the notion of terroir product, allow to tackle different aspects and scales in the food system.

It can address from the production of the terroir product (e.g. agricultural practices used) to economic (e.g. added value of the terroir identity in the supply chain), social (e.g. perception by the consumers) or environmental aspects of the terroir product.

The questionnaires need to be carefully designed to answer the research question (early feedback of the supervisor is highly recommended) as well as a “test” phase for the questionnaire.

It is important to insure autonomy of students in their data collection (transportation, appointment management, etc.).

Strength and constraints of teaching tool

The teaching tool was used over several years and showed to be powerful for active learning, working in parallel on different topics in a certain region, provide students skills beyond learning such as group management, organising travel and meetings with stakeholder. A debriefing at the end of a working day is of great importance and get information from other groups about the meetings with other stakeholders or visits.

The main constraint is the transportation (e.g. a minibus for each student group) which can result in important costs. A high flexibility is also needed to adjust the data collection (interview with stakeholders) and the other activities of the pedagogic programme.



Terroir products

Common French expression that refers to products made in a given place and connected with that place. The difference with local products is that these products relate to the local culture and tradition. More than historical belonging, this relationship is based on collective know-how. A real terroir product is a popular product and looked for outside the region where it comes from.

(Barham 2003, Sylvander et al. 2005)

Inquiry based learning applied to sustainability issues



Description of teaching tool and objectives

Inquiry-based learning is a principle that relies on student independence: learning by conducting own research. The principle of inquiry-based learning is part of the tradition of education, which is considered "as participation in scholarship as a never ending process" (Huber 2009).

It is a method that focuses on student questions and ideas. From a student's point-of-view, inquiry-based learning focuses on investigating a challenge or topic. The students use creative thinking, decision making and solving the research question which has to be presented. From a lecturer's point of view, inquiry-based teaching is directed at developing critical thinking and understanding. The lecturer encourages and stimulates students and supports them in structuring the paper.

Specifics of inquiry-based learning in the sustainable food systems are:

- Inquiry-based learning in this field is problem-oriented and interdisciplinary.
- Orientation in research requires different types of knowledge and transition and societal transformations.
- Inquiry-based learning is linked to mutual learning in cooperative, transdisciplinary settings (Vilsmaier et al., 2015).
- Students have to show their position in the research process, as well as the positions and perspectives of others, in order to facilitate integrative research (Vilsmaier and Lang, 2015).
- Sustainable food system issues and research topics require a broad range of applied methods - cooperation, evaluation, research management, and the ability to link and embed different types of methods.

Audience and pre-requisite for students

Generally, there are three groups, with approximately 5 students working together in each group with two lecturers.

The duration is one semester. (10 weeks)

According to the principles of inquiry-based learning (Huber 2009), students have autonomy at all levels.

The specifications that students receive are of a theoretical and methodological nature.



Implementation of the tool

The process is divided into three phases (Lang et al., 2012; Vilsmaier and Lang, 2014).

Phase 1: Research topics

Students work together, supported by teachers, to define a research topic and formulate research questions that are at the same time scientifically and socially relevant. They organise and structure their work in group, starting this way, their team building.

Students develop a research plan, implement their research ideas, ask questions and analyse a wide range of literature related to the chosen research topic. Student groups are integrated into real research projects

For this reason, lecturers include their research into their teaching practice, develop new forms of teaching and learning in communication, and get involved in student initiatives.

This phase is completed after the development of a research plan. At this point, students built up knowledge and expertise in the group and established collaboration routines.

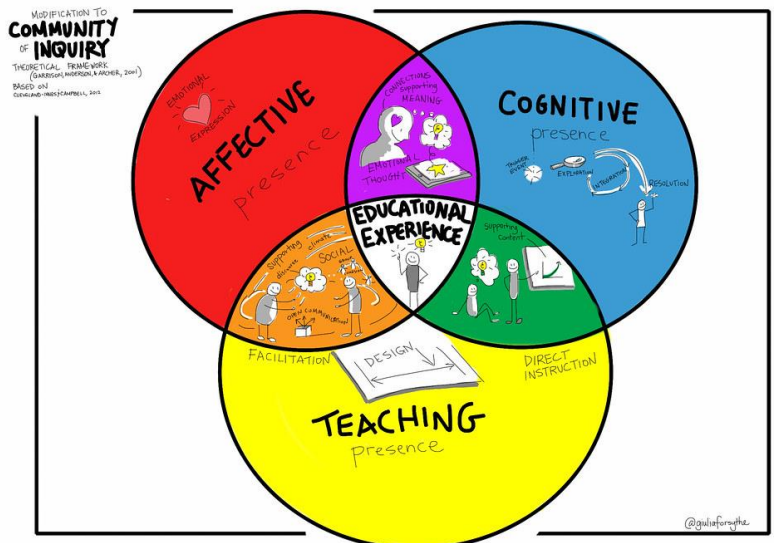
Phase 2: Processing the research question

An in-depth analysis and survey on the research topic is conducted based on the research plan, team work plan and organisation. Students and teachers present their scientific knowledge of the subject. There is discussion/critique, use of technology (smart devices), collaborative debate, individual and small-group sharing and reflection, and group learning. Focus groups and seminar could be prepared. This phase ends with the completion of the survey in the different dimensions.

Phase 3: Re-integration of results

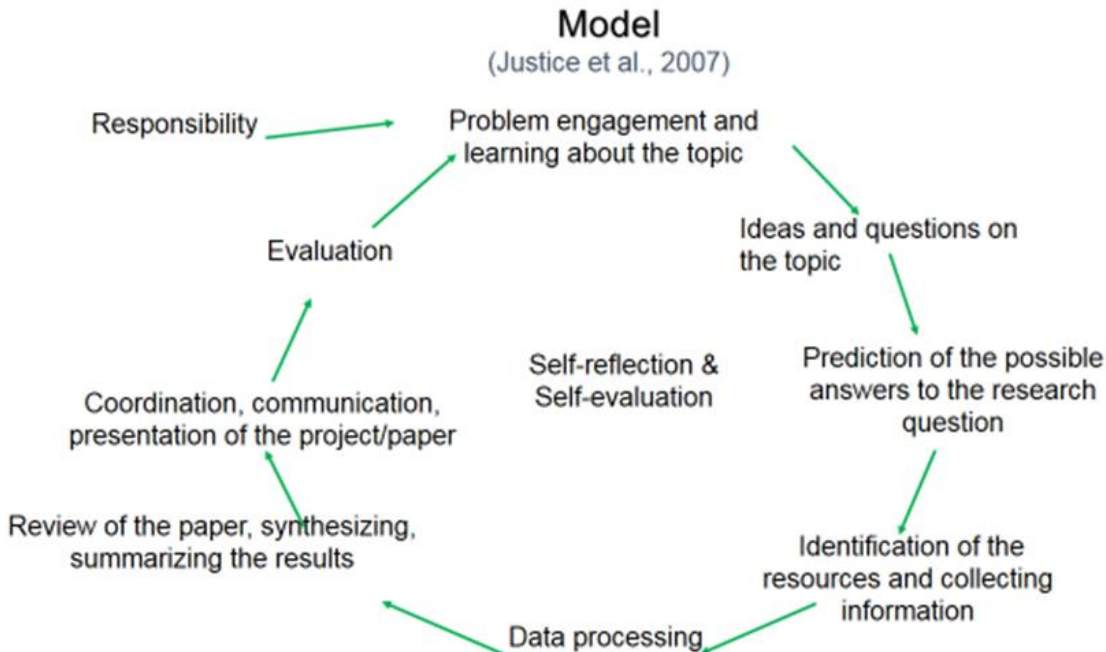
The results of a project are prepared. Students write a project report and/or prepare an article for potential publication. The lecturers assist with recommendations and tips.

This phase ends with a public presentation of the projects and research results, which brings together all actors involved in the inquiry and the interested public.





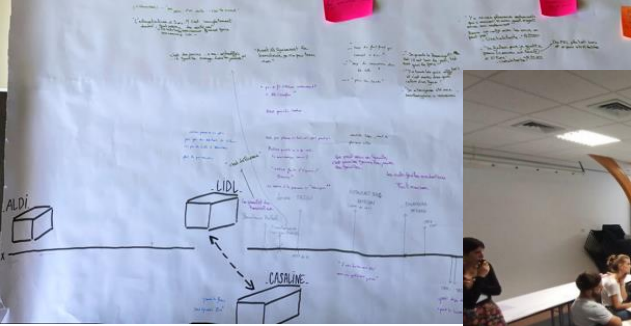
Inquiry-based learning model



Source: Based on Justice et al. (2007)

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Food-Transect – applied to food justice issues

Description of teaching tool and objectives

Food-Transect is a tool for debating food issues in the territories of today and tomorrow. It is a participatory urban planning method inspired by Geddes (1925) and imported into France by Tixier (2016). It has been progressively applied from spatial sciences research and education issues to urban food issues to reflect on the sustainability of urban food systems in relation with the urbanism devices and methods (Buyck et al., 2021). It is a sensitive urban crossing that includes interaction with a diversity of actors and results in producing a sensitive mapping of food landscapes and engaging in a dialogue on the food transition.

This teaching tool is based on a student group work in France, and if conducted with inhabitants or local stakeholders includes prior mobilization of participants.



A Walk



A Section



A Debate

Source : Buyck et al. (2021)

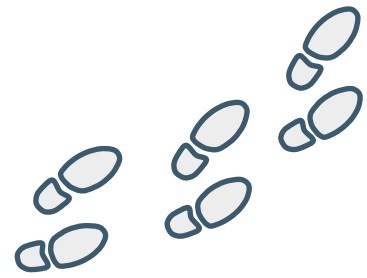
Audience and pre-requisite for students

The teaching tool is targeted to MSc level students. Basic knowledge about food systems, food distribution, quality food is a pre-requisite for students to be able to follow successfully the course. Also, minimum knowledge on how to carry out a survey and prepare a questionnaire is important. They also need to be sensitive to social science methodologies and be able to understand why it matters to seize the diversity of representations of people. Minimum of cartographic competences is required so that they can prepare the walk.

If conducted with inhabitants, minimum training in facilitation techniques is required.



Teaching method/tool



Three steps:

The whole tool consists of 3 steps:

1. Conducting a **walk** along a pre-defined route: collecting information (photos, audio, observation, interviews, drawings, sketches, etc.).
2. Creation of a **section**: reporting information collected and questions raised along the route (freehand drawing, pictorial representation) on a long paper (mental map): indications of location, in situ perceptions, elements of debate, documents collected, atmosphere, etc.
3. Carrying out a **debate** with the participants: sharing knowledge about the situations crossed and found during the transect, debating the information collected (reaction to what is written, what is missing, adding comments, information, new accounts), define possible actions of for improvement (e.g. food access and type of food available, food distribution, food justice).

Two working periods for students:

For students, it can be organized in two working periods of 6 weeks in total :

Period 1 (4 weeks):

- 1) Understanding the social, urban and food context of study area (grey literature, mapping of the food supply, eventually meetings with stakeholders or interviews with inhabitants).
- 2) Preparing the Food-Transect (identifying the relevant sections, preparation of the participants' toolkit (cameras, recorders, observation and interview grids, maps of the sections, guidelines, animation guide)

Period 2 (2 weeks):

- 3) Carry out the transect and field observations. Optional: If carried out together with stakeholders, animate different sections with the transect with the participants during the day of the Food-Transect along the 3 steps: walking, observation, debate.
- 4) Put collected data together and analyse
- 5) Synthetize the outlined observations/problems/challenges/action points about the food landscape of the transect study area
- 6) Make a group presentation and a group report.

Teaching tool in a concrete situation

This tool was applied in 2021 in the frame of a research-action project as a device that could contribute to food justice issues, increasing people's knowledge and skills on food systems and leading to a re-appropriation by citizens of the issue of access to quality food. Objectives were to experiment with raising the political awareness of the inhabitants about the food realities of the territory and contribute to the creation of a collective that raises questions, provides guidance or takes action in terms of food accessibility.

A group of 4 students were asked to build, conduct, facilitate and analyse a Food-Transect with people affected by food insecurity/accessibility in a district of the Lyon metropolitan area (Saint-Fons).

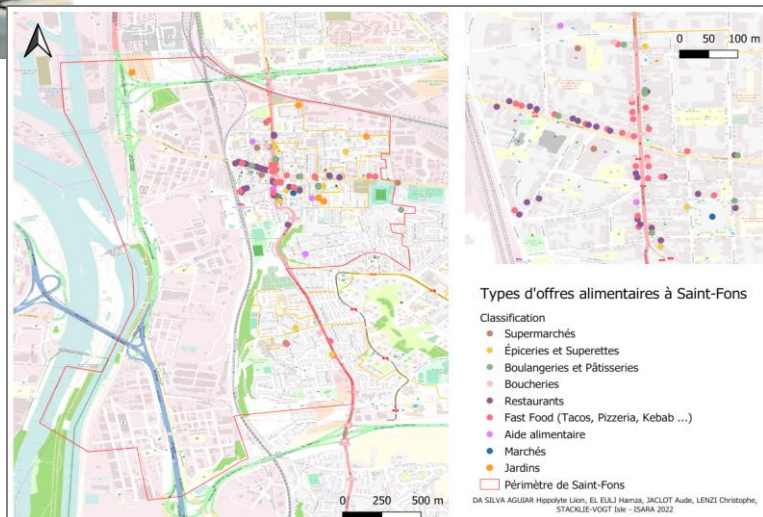
The objectives were:

- Reporting on the practices and representations of the food landscapes of the inhabitants
- Participate in an experimentation of political awareness on the city's food landscapes
- Nourish the actions and reflections of the social grocery / third-place La Casaline in Saint-Fons.

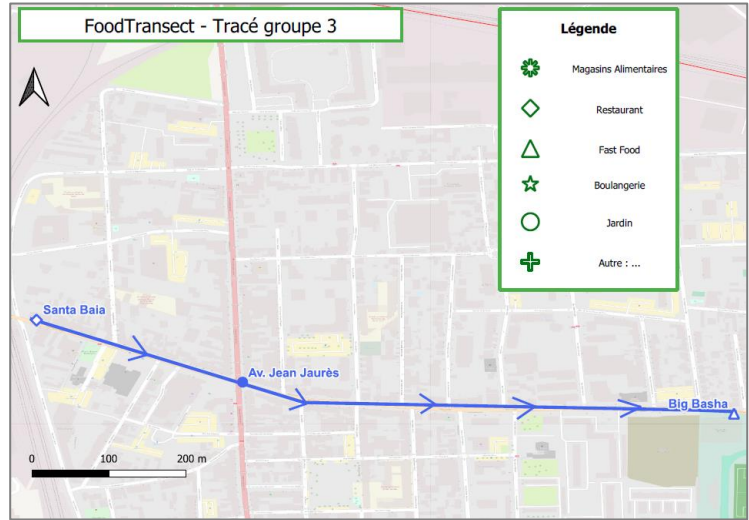
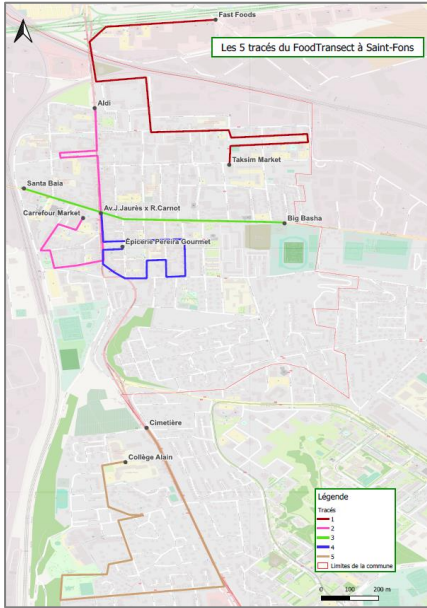
It was conducted over 5.5 weeks and divided into two periods.

Period 1 (4 weeks) aimed at:

- ✓ the appropriation of the request and of the food justice issue
- ✓ the understanding the social, urban and food context of Saint-Fons district (grey literature, meetings with stakeholders, field observation, interviews with inhabitants related to La Casaline, mapping of the Saint-Fons food supply).



- ✓ Preparing the Food-Transect (Identifying the relevant 5 sections, preparation of the participants' toolkit (cameras, recorders, observation and interview grids, maps of the sections, guidelines, animation guide, etc.), organizing the event with La Casaline).



My findings

Name :
First name :
Group n° :

1. How do I feel during the ride ?

2. What do I notice and what challenges me ?

3. What would I like to see changed ?

Interview with a retailer/restaurant

Name :
First name :
Group n° :

1. Where do the food products you sell/cook come from ? [Where do you source them?]

2. Can you describe your customer base?
[Who comes to your store/restaurant? Where do they live? Do they have any special requests?]

3. What do you think of the local food offer (stores, restaurants, etc.) ?
[What's positive / negative? What do you think of the quality/price of the products? What's missing?]

4. If you had a magic wand, what would you like to see changed in the neighborhood in terms of food?
[What would you like to find? What would you change?]

Interview with an inhabitant

Name :
First name :
Group n° :

1. Where do you usually do your food shopping?
[If you meet in a store, add: why do you come here to do your food shopping]

2. What do you think of the food stores and restaurants in the neighborhood ?
[Do you find everything you want? What's positive / negative? What do you think of the quality/price of the products? What's missing?]

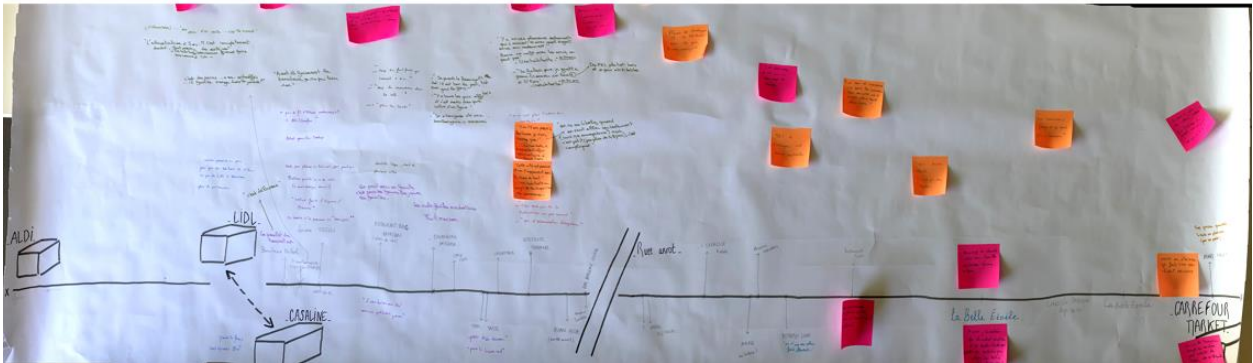
3. If you had a magic wand, what would you like to see changed in the neighborhood in terms of food?
[What would you like to find? What would you change?]

During **period 2** (1.5 weeks), students were asked to:

- ✓ Animate the 5 sections of the Food-Transect with the participants during the day of the Food-Transect (and along the 3 steps: walking, section creation, debate).



- ✓ Summarize and centralize the collected data



- ✓ Synthetize the outlined observations/problems/challenges/ action points about the food landscape in Saint-Fons
- ✓ Produce a document that should serve further animation of the process (public exhibition of the harvested data, advocacy, etc.) and contribute to a collective prospective reflection on the possible food transition in the neighborhood of Saint-Fons.



Operational and organisational recommendations

The Food-Transect can be conducted by students themselves but in this case must include interaction with people crossed on their way. If conducted with inhabitants and local stakeholders, the contact and potential mobilization (through an association or local governments) must be established and prepared before the work of the students. Students can not realize themselves the mobilization of inhabitants and local stakeholders on a 6 weeks period.

It can be conducted by diverse size of student groups. But if realized with inhabitants and local stakeholders, 2-3 students per sections are necessary.

It is important to insure autonomy of students in their data collection (transportation, appointment management, etc) and insure they have a good knowledge of the local situation prior to the walk.



Strength and constraints of teaching tool

The teaching tool present many interests for students learning on territorialized food systems. It allows them to:

- Get acquainted with consumption issues in cities and in particular the difficulties faced by people concerned with food accessibility issues
- Understand the limits of the development of territorialized food systems with regard to the price issue and people's representations on those systems
- Understand the limits of action of cities in the determination of healthy food landscapes
- Understand through practice the empowerment difficulties of people facing accessibility issues. Also, students have a better understanding, through practice, of the complementarity of qualitative and quantitative data collection in the comprehension of local food situations.

References

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Exploring inner landscapes and learning from different perspectives

Description of teaching tool and objectives

These two teaching methods can be performed separately but also could be combined.

Exploring the own environment

The students are asked to look out for a landscape that they have a deeper connection with during the weekend and take a photo of it. It can be their favorite forest, garden, skyline, or something completely different. This task is also possible in teams, but better done as individuals. In a seminar session everybody comes together and shows the photo of their landscape. As the group should officially claim the seminar as safe space where everybody can share their thoughts, emotions and opinions without any judging, there is a big chance, that everybody will give more personal information why they chose this photo of a landscape. This very individual view and description of a place to which they have a special attachment leads to a shared experience of personal perceptions of landscape. In other words, how one's own life world, an inner landscape so to speak, influences what we see around us. This is also helpful for team building and showing each other respect. The goal of this method is to build awareness for different values that can be found in a place by different individuals.

Collective learning with farmers

This learning tool is based on a field trip. Students organize in groups with approximately four people each and choose a farm. The aim is to reflect together with farmers about sustainability. For the exercise, the TAPE-Tool (see below) is used with the corresponding interview sheets for Step 1 (Characterization of Agroecological Transition (CAET)). The questions asked by the students and the answers given by the farmer builds a connection between them and learning from each other. The farmers get the chance to reflect on their course of action and its sense of purpose. The students, on the other hand, can find out which is the view of the farmer on his own land and on topics like biodiversity, soil quality, or women's rights. It is not the aim to rate how good or how bad things are

A following seminar session all groups share their experiences on the farms and the results of the interviews, shown on spider web diagram as shown on a following page. It is exciting for the students to create this diagram because now they can see and compare how their different farms perform within the given productive context and farmers' perspectives and beliefs.

Audience and pre-requisite for students

Interested Students in groups of max. 24 people, Bachelor or Master of Science.
Can be related to studies of nutrition, agriculture or ecology.



Objectives of the tool

- The diversity of their landscape perceptions shows the different approaches, capabilities and backgrounds of the students in a group. At the same time, connecting with a landscape one perceives as meaningful allows to explore the self. Sharing this experience in a seminar allows to decelerate, position oneself, be mindful with others, and reflect on diversity while contributing to merge the seminar group.
- Also, students ask for getting in contact with the “outside world” and gain real life experience. They should take different perspectives so they can understand both the connections and complexity of real-life problems in the context of our food system and farming. Finding answers to questions like “Why do farmers operate the way they are operating?” by getting in contact with actual farmers and referring to this experience together in the context of subsequent seminar sessions. At least one seminar session or a daily field trip take place to farms nearby. Additionally, students have a group task to visit a farm by themselves and reflect with farmers on sustainability using TAPE (Tool for Agroecology Performance Evaluation, Step 0 and 1).

Teaching tool in a concrete situation

One tip is to build up a narrative during the whole semester for the seminar. Each lesson stands for itself and is connected to the other ones, allowing to deepen in the many aspects taken into account in agroecology. In each lesson one topic should be deepened. Also, it is important that there is no need to find a consensus in the end, but that there is room for differences and alternative opinions.

In the concrete situation, also the applicability of the TAPE-Tool for the German agri-food systems where it was applied was discussed.



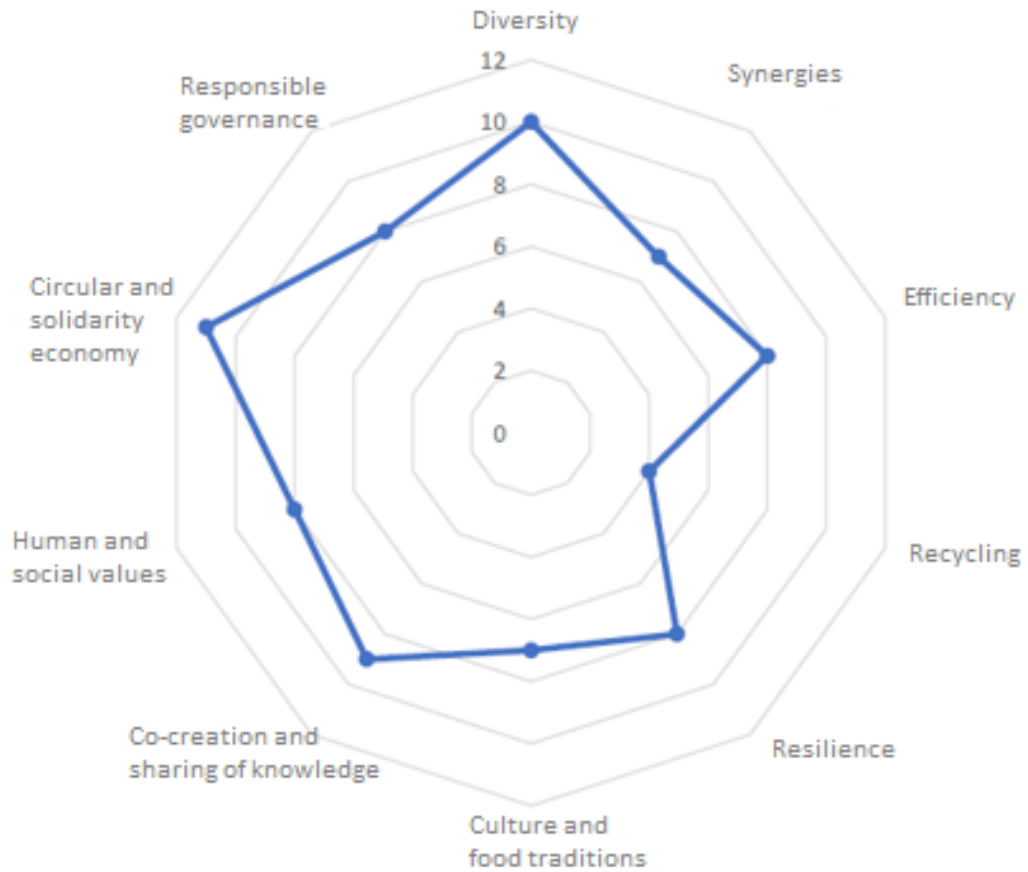
Strength and constraints of teaching tool

When sharing the inner landscape, it is possible that emotions are shared. From experience this is not a bad thing and was not overwhelming for anyone.

When there is no direct contact possible e.g., as it was during Covid-19 lockdown season, it was okay to do the TAPE-interviews online.

As the seminar is building up on each lesson to the next it makes more sense for the students to show up for every session. There are background texts and information uploaded as digital course materials for students who missed a session, but it is better to discuss the contents and share knowledge in person. Since there is a narrative during the seminar it can be more challenging for the students because they have to think along, understand and actively participate in connecting the topics. It is also a challenge for the lecturer to build this narrative, make it possible for the students to follow and most importantly: set explicit goals for each lesson. What do I want to achieve? Again: It shouldn't be the goal to find a consensus everybody is happy with but rather promote the engagement with the lesson's topic and position oneself in the diversity of options and perspectives.

Teaching tool applied



Radar chart of one farm regarding the 10 elements of agroecology using TAPe:
<https://www.fao.org/agroecology/tools-tape/en/>



Embedded Dish - Is your favourite dish embedded in the territory?

Description of teaching tool and objectives

“Embedded Dish” is a teaching tool where students analyse their favourite dishes and the dish ingredients through the perspective of embeddedness in the territories where the dishes and its ingredients come from and/or where they are usually eaten. It requires an introduction by the teachers, to get the students into the notion of embedded food systems and a number of its dimensions, as well as on selected sustainability issues. Then students work in groups, to look critically at various aspects of their dish's embeddedness into territorial food system(s) and contribution to sustainability. A lecturer should support the students on this way, and stimulate discussion. Each group presents outcomes of their investigation and reflect on possibilities for increasing the embeddedness and sustainability of their dish. This personal approach of choosing a familiar dish allows students to better grasp the socio-cultural, ecological, health and other dimensions related to food. Using something personal like a favourite, local/regional/traditional meal, helps the students to explore new and complex issues related to sustainable, territorially embedded food systems.

Objectives of the tool:

- To develop students' understanding of the embedded food systems concept and its various dimensions and perspectives.
- Through the task related to the analysis of a selected dish – to reflect on whether and to what extent the dish and its ingredients are related to the notion of embedded food system and to sustainable food systems, and how our diet is linked to sustainability and embeddedness issues.
- To reflect on/understand the roles/importance of embedded food systems for the overall food system sustainability, for diversity and resilience of the food systems.
- To stimulate students exchange, interaction, discussion.
- To encourage students to apply a holistic approach to the food system, critical analysis, and to handle complexity.

Audience and pre-requisites for students

The teaching tool is suitable for both the BSc and the MSc students. Basic knowledge about food systems is a pre-requisite for students to be able to successfully complete the task.



Teaching method

This tool can be used within a set of several (3-5) meetings (classes), 90 mins each, or can build a whole module. It requires a comprehensive introduction by a teacher, supervising group work, stimulating discussion, presentation of the outcome by students, feedback & peer-feedback, final reflection. The assignment can have a format of a 7-10 minutes PowerPoint presentation with the following outline: Title slide (authors, title of the task, name of the selected dish); Description of the dish; Various aspects of dish sustainability and embeddedness in territory (type of production system, agroecological issues, processing, product quality and safety aspects, environmental footprint, food system stakeholders/components, who eats the product, food policies, spatial, social, economic, cultural, environmental embeddedness aspects of the dish); Potential improvements towards enhanced embeddedness; Summary of the perceived learning outcomes including a reflection on food habits or regarding our food system; References. Presentation should be followed by a discussion.

„Embedded Dish” steps:

Step 1. Dish selection

Select a traditional meal or dish from your home region.

Step 2. Description of the dish

Describe the ingredients, their origin and production (including pre-processing); Describe the recipes for each part of the dish, including tradition and cultural background; Describe the qualities of the dish, including ways of eating and preparation.



Step 3. Analyse the embeddedness of the dish in the territory

Type of production system; Agroecological issues; Processing; Product quality and safety aspects; Environmental footprint; Food system stakeholders/components involved; Who eats the product; Food policies; Spatial, social, economic, cultural, embeddedness).

Step 4. Analyse sustainability and health aspects of the dish

Possible indicators for environmental sustainability: product carbon footprint, water footprint, land use; Possible indicators for the food quality: nutritional value, taste, diversity of the ingredients.

Step 5. Improvement of the dish

After acquiring knowledge on the different issues, students develop strategies to improve embeddedness and sustainability of the dish.

Step 6. Presentation and reflection

Finally, they present and discuss their results and reflect their acquired skills.

Step 7. Tasting

If possible - at the end of the course students should prepare their embedded dish and everyone should eat together.

Teaching tool in a concrete situation

This teaching tool was inspired by National Dish of Johannes Kahl et al. (University of Kassel), developed within the SUSPLUS Erasmus+ project and tested and implemented successfully in several courses and modules, with a very good feedback of students and lecturers.



Operational and organisational recommendations



The “Embedded Dish” can be introduced as an assignment within existing or new courses. Preferably for the group of maximum 30 students. It can be implemented as a part of the blended learning module, in international courses or summer schools, where students select their own “national dish” or in regular (national) courses, where students select a “regional dish”. In all cases, the objectives of the module/task should be clearly defined and presented to the students at the beginning.

Strengths and constraints of teaching tool

The “Embedded Dish” can undoubtedly be a powerful and effective tool, but for this, the teacher needs to understand deeply all dimensions of the embedded food systems and food system sustainability, to be able to guide the students through the whole process and provide valuable, comprehensive feedback.

The strength is that it can be organized for students of all study levels, both international and national groups, also in the form of blended learning. Multidisciplinary of the covered aspects can be a motivation to involve more teachers/experts in the module, which brings huge benefit for the students.



Study of embedded food systems as a learning journey

Description of teaching tool and objectives

This teaching tool is based on student group work on embedded food systems of farms and small food manufacturing companies. It is conducted across 2 semesters with weekly meetings, extra work at home and work in sub-groups.

The group are of 8 to 10 students (minimum 6, maximum 12), and 2 to 3 farms/small food companies are studied per semester.



It consists in two main steps:

- 1. Analyzing** farm and small manufacturing food processing companies as basis of embedded food systems
- 2. Optimizing** the operation of a farm/food processing company

Objectives of the tool:

- obtain information independently
- be able to collect and critically classify company data
- apply the theoretical knowledge from the studies in practice
- develop complex concepts
- active involvement/participation
- self-organization
- social and communication skill development
- be able to work independently and respectfully with each other over a longer period of time
- be able to prepare a final report and give a public presentation

Audience and pre-requisite for students

The teaching tool is suitable for both the BSc 3rd semester onwards and the MSc students.



Teaching method/tool

The tool is used across two semesters. During the first semester, a first meeting is organized for the presentation of the different farms and food processing companies (2-3). Students choose a farm and/or a food processing company as well as a group and conduct further independent group work as well as some workshops together. Then follow-up meetings are organized to learn to better know each other within the group and to do some group building (workshop and real life). Students also plan a first trip to the farm/ food processing company.

This first visit of the farm/company allow students to discuss with the farmers / owners of the food processing company and to proceed to an analysis/description of the current farm/ company. At the end of this 1st semester, they have to provide a complete description of the studied farm/company.

During the second semester students prepare a 2nd farm/ company visit. During this visit they interview the farmer(s)/ food processing company(s) owners with the precise objective to define their vision for future, the expected changes, their wishes/targets of the business. Students work on the vision and concept development for the improvement of the work and economic results of the farm/company. They propose improvements (eg planning/design/calculation) to make the farm/food processing company more efficient and reveal its relationship to the embedded food system.

They present their findings under the form of a written report (40 - 50 pages), targeting also the farm/ food processing company owners, and an oral presentation of 30 minutes (20 min presentation + 10 min discussion).

The work performance is graded through the assessment of the participation in the group work, the final report and the presentation. The grade is collective with individual variance, in case of differing individual performances.

Operational and organisational recommendations

This tool present opportunities but also challenges. Lectures need to be comprehensible for students. Students have to show responsibility, self-organization (time tables) and to manage social interactions in the group including the management of the group decisions and the ups/downs. The dynamic of the group work is very important: students have to find their place in the group, to organize group meetings (moderation, protocols), to learn to work independently and together and to care about the group communication.

They learn by doing and need at the same time to handle complexity and to be able to integrate their own working parts into the whole concept.

Strengths and constraints of teaching tool

The tool is based on farm/ food processing company visits and interactions with farmers and/or company managers.

This allows:

- Real life/farm setting
- Human contact / authenticity
- Discovery of a new region
- Investigation of farm conditions and infrastructure

And enables students to develop:

- Vision and future concept for improvement of the economic indicators of the farm/company
- Responsibility and get a feel of the „realness“ of the project
- Group commitment

The role of the lecturer and supervisor is important. The lecturer has to:

- Find suitable farms and farmers/partners (before project start)
- Provide advice, assistance and contact to experts
- Contact person in case of problems
- Give input on content
- Keep an eye on the timetable
- Facilitate/initiate the active learning process!
- Encourage and stimulate critical reflection!



Using animal encounters to bridge separation of students and food systems

Description of teaching tool and objectives

This tool uses place-based sensory experience in animal encounters to approach animal-foods production in the food system through a personal and direct way. To open the lesson little cards are shown as a silent impulse. On the front side there is an image of a chicken or piglet and on the back side there is a sentence: "What is my value?" Students are invited to contemplate the front and then back sides of the card. Following this an input about the meat industry and livestock farming is given. This may include facts, statistics, or current news from different media (newspaper articles, photos in social media, documentary films, etc.). The teacher then leads a conversation about topical issues with the following suggested guiding questions: How many animals are slaughtered every minute/hour/day/week/year? How many animals get sick in the process and are therefore thrown away? Also, political discussions can be reviewed here. Guiding questions could be: "How much and what is covered up by the meat industry? What has changed or needs to change from the consumers' point of view?". Another topic would be values: How did our values change in course of time? How did they change in Europe and in more Christian [or other belief systems] regions? What are the differences between individual and societal values?

The additional questions of the tool's developer, a teacher of theological zoology, are: What is the value of an animal vs. a pet or even a car? (More personal dimension) How much am I worth to myself? What am I ready to give? How much do I want to give my pet at home? Is the pet worth more or less than myself? Is it worth more or less than an animal on a livestock farm?

Here are more ideas for discussions:

- "Animals are soulless automations" a definition of animals in early modern thought
- Why are we thinking this way? Where are the roots of our thoughts coming from? What happened in European Thinking History? (historical and religious dimensions)
- What new philosophical, anthropological approaches are there to discuss the value of an animal? Is nature only means to an end?
- Which facts in the field of behavioural biology and ecology are given about the relationship between humans and animals? How close are we related?

Audience and pre-requisite for students

Interested Students Bachelor or Master of Science; Students of different subjects but especially nutritional science, no prerequisites

Materials

Cards (see examples on the right)
Fact sheet about chosen animals
to be filled in by students



Authors: Carola Strassner and Kathrin Auner, FH Münster,
Rainer Hagencord, Theologische Zoologie, University of Münster, Germany

Operational and organizational recommendations

Contact to animals should be readily possible, e.g. at a decent zoo, a well-run petting zoo, a professionally managed farm, typically an organic farm with extensively kept animals. For example, in Münster, we have Haus Mariengrund. It is surrounded by nature, has a special garden and nature kindergarten, and also keeps a few animals like donkeys.

It is important to realize the dimension that some animals in the zoo are one of the few last existing ones; getting in contact with typical farm animals; it is not necessary to “shock” students by showing them the harsh reality of livestock farming but more to find a setting where they can build an emotional relationship with different kinds of animals (including insects, bees etc.)



Objective of the tool:

- Get the students to think about economic and/ versus ethical and/or theological value of animals.
- They should be able to differentiate between the value of an animal for an individual and for society

Teaching tool in a concrete situation

The most important thing is the encounter with the animals themselves and the perception of what that does to you. This can be implemented through a visit to the zoo. It is important to let the students know about the task of a zoo to protect species from extinction. They can learn more about biodiversity, the different phases of species extinction (as we are currently in the 6th phase) and how protect our nature and its animals. A task for the students can be to fill out a fact sheet about an animal they like or want to know more about. The fact sheet builds kind of a bridge between theoretical facts and building an emotional bond with the chosen animal. The students should be able to percept the animal with all senses: See, listen, smell and if possible, feel. They can look up more information about the biology or social system of their chosen animal but also why they are at risk of extinction. The next step would be to find answers on how a person could something in their life to change the speed of the chosen animal’s extinction. Afterwards all students come together and exchange their experiences, present their factsheets and animals. It is important to share emotions so always ask: “How did that make you feel?”. This will help to learn for a lifetime.

Strength and constraints of teaching tool

Sometimes there is lack of understanding the topic and that it is more than useful to think about and experience a relation with an animal. It is worth it to think critically about meat industry.

ISP - Intensive Study Programme



Description of teaching tool and objectives

This teaching tool is rooted in action learning, involving a diverse group of international students from various nationalities and universities, spending 8-9 days immersed in a specific territory. The focus centers on understanding food systems in a particular territory/region through farm visits, meetings and interactive discussions with stakeholders. The aim is to delve into embedded food systems by analyzing local and regional cases, exploring the complex notion of “terroir product.” Despite lacking a definitive definition, this concept encapsulates elements such as raw material origins, production locations, local knowledge, and consumption contexts. The foundation for this tool stems from two successful 8-9 day Intensive Study Programmes on 'Embedded food systems in territories' organized by MUAS in Münsterland, Germany (1st study programme) in July 2022, and by UNISG in Val Varaita, a mountain region of Piedmont, Italy, (2nd study programme) in July 2023.

During these study trips, students engage with traditional and regional food producers, evaluating various dimensions of sustainability within the local food system and its embeddedness into the territory. This experiential learning methodology provides a common basis to be used as a teaching tool also in other study programmes.

The Intensive Study Programme educational tool includes:

- ✓ Workshops, syllabi, and introductory lectures about the region (1st day)
- ✓ Presentations by students about embedded food systems from their home countries (2nd day)
- ✓ Formation of student groups from different universities, each analyzing one chosen case in depth
- ✓ Four consecutive days of various farm visits and case studies (3rd to 6th days)
- ✓ Student group collaboration and analysis (7th day)
- ✓ Reporting and presentation of findings (8th day)





This action learning approach enhances students' teamwork, communication, analytical, problem-solving, creative, entrepreneurial, and intercultural skills, fostering fluent communication in English. Emphasizing a systems approach and problem-oriented learning, the programme promotes innovation and social engagement, infusing an international, multidisciplinary perspective into the topic.

Engaging with terroir products enables students to grapple with diverse concepts associated with embedded and territorial food systems. It encourages them to construct knowledge not readily accessible, fostering an active learning process.

Objectives of the tool:

- Grasp key notions related to embedded food systems and their associated concepts
- Connect with stakeholders within the territory, engaging in meaningful interactions
- Gain firsthand experience of the components and scales of a territory's food system
- Transition from passive observation to active participation, fostering knowledge creation
- Cultivate a holistic approach in analysis, managing complexity effectively
- Foster teamwork and enhance communication and management skills through active engagement

Audience and Prerequisites for Students

The teaching tool targets MSc level students but can be adapted for BSc level. Students should possess basic knowledge about agriculture, food systems, food processing, and quality food. Additionally, familiarity with conducting surveys and preparing questionnaires is essential.



Teaching method/tool

The tool comprises three phases: **1. preparation**, **2. farm/case visits** with interviews, and **3. group analysis/discussion and presentation** of findings.

All students participate in each phase, with small group divisions in phases 1 and 3. The duration of each phase and the overall process can be tailored to the curriculum's structure. The preparation phase involves forming groups, internal role divisions, and discussing potential questions for semi-structured interviews with farmers and other stakeholders, critical for successful learning outcomes. During the farm/case visits, students explore diverse realities within a selected territory. Finally, students write a report and present their work through a group presentation.

Teaching Tool in a Concrete Situation

The ISP syllabus outlines a detailed timetable of the two Programmes, including dates, times, visits, and tasks already carried out. It provides information about the schedule, educational methods employed, expected learning outcomes and verification methods, final reports, and a list of recommended literature. The syllabus can be found on the GOODFOOD project website.

In our scenario, the tool was utilized within an 8-9 day module. The first phase spans a single day, with students organized into groups of four. A teacher delivers a territory presentation during phase 1. The case/farm visit (phase 2) comprises four consecutive days within the territory. The teacher pre-arranges transportation and meeting schedules with various stakeholders during these field excursions/visits.



Operational and Organizational Recommendations

Advance organization is pivotal, encompassing accommodations for the 24 students and nine teachers, including lodging and meals. Additionally, meticulous planning for farm visits, stakeholder availability, food tasting sessions, authorizations, and transportation logistics, either private bus bookings or confirmation of local public bus availability, is essential.

The selected cases should have specific focuses, and stakeholders must possess effective communication skills and a willingness to engage with students. During the ISP, six student groups work in parallel, each examining a specific case while collectively visiting all cases. This approach allows them to explore diverse aspects and scales within the food system, including agricultural practices, economic factors, social perceptions, and environmental impacts.

Strengths and Constraints of Teaching Tool

The teaching tool, employed twice in GOODFOOD, proves highly effective for active learning, fostering passion, multicultural collaborative work, and profound regional learning experiences. It equips students with skills beyond core competencies, emphasizing dialogue, participation, reflection, and visioning.

Regular debriefing sessions at the end of each workday are crucial, addressing student queries and comments and obtaining group feedback. The primary challenge lies in securing suitable accommodations for the entire group over ten days, alongside transportation logistics, which can incur substantial time and cost investments.



“Education is not transfer of knowledge, but a **dialogue to increase the creativity** of individuals and groups. It focuses on the **capacity of people** to discover their vital interests and allows them to freely express their own reflections based on both their **experiences and discoveries**” (Migliorini and Lieblein, 2006).



Project partners

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- University of Gastronomic Sciences (UNISG) Bra-Pollenzo, Italy
- ISARA, Lyon, France
- University of Applied Sciences, Münster, Germany
- Agricultural University Plovdiv, Bulgaria
- University of Oradea, Romania

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