« Integrated Exercises » on Environmental Issues

Description of an interdisciplinary learning process at the Université de Liège (ULg)

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(MACOSPOL Workshop at Sc. Po – Paris)
I.E. on Environmental Issues

- Place of the I.E. in the course of study of the students?
- Motivations and acknowledgements at the origin of the I.E.?
- Which audience?
- How are organized the I.E.?
- The choice of the topics?
- A reciprocal apprenticeship and difficulties
Motivations and acknowledgements at the origin of the I.E:

- to base the pedagogical dispositif upon the description of local cases;
- Confrontation and articulation of the different points of view recorded;
- To take distance from a kind of « problem solver state of mind ».
Which audiences?

- Students (50 to 60) interested specifically to the study and management of Environmental Issues;
- Post-graduate program (min 4 to 5 years at Univ.);
- Diversity of disciplinary origins;
- Diversity of geographical origins;
- Very different and unequal professional experiences.
How are organized the I.E.?

- The IE counts for 54h of courses and seminars;
- Take place during 2 weeks
- A central topic which is declined in two different ways
  - 1\textsuperscript{st} week: \textit{discovery and destabilization};
  - 2\textsuperscript{nd} week: \textit{south countries perspectives, scaling and cumulativity};

  or...

  - 1\textsuperscript{st} week: \textit{discovery and destabilization};
  - 2\textsuperscript{nd} week: \textit{in-depth analysis of a special question}.

- Dispositif : one week of debates with the key actors of the case, with work in sub-groups.
### Typical Schedule:

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<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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<tbody>
<tr>
<td><strong>AM</strong></td>
<td>Plenary session: Introduction + Actor n°1</td>
<td>Site visit with actor n°3</td>
<td>Plenary session: Actor n°4</td>
<td>Plenary session: Actor n°6</td>
<td>Work session in sub-groups</td>
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<td>Work session in sub-groups</td>
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<td><strong>PM</strong></td>
<td>Plenary session: Actor n°2</td>
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<td>Plenary session: Actor n°5</td>
<td>Plenary session: Actor n°7</td>
<td>Plenary session: Oral presentation by sub-groups</td>
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<td>Work session in sub-groups</td>
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Which actors invited?

- Scientists and/or experts
- Regulators
- Agencies
- Industries
- Entrepreneurs
- Burgomasters (mayors)
- People affected
- Associations (activists)
The choice of the topics?

The nature’s management (biodiversity) – 2001-2002:
1st week: Marshes of Fouches (Natura 2000)
2nd week: Protection of the biodiversity in the south’s countries

Alternatives Energy Ressources – 2002-2003:
1st week: The implementation of Windmills (the St Ode’s case).
2nd week: The use of the firewood and its relation to deforestation (sub-Saharan area)

Environmental impacts of barrages (the scaling issue) – 2003-2004:
1st week: The “micro-barrages” (Luxemburg province area)
2nd week: Dam in the south countries
**Chemical contamination of dwellings** – 2004-2005:

1\(^{st}\) week: The Mellery’s Affair (Belgium)

2\(^{nd}\) week: distributed on a 1,5 month period of time

**Waste management** – 2005-2006:

1\(^{st}\) week: Waste management at the ULg

2\(^{nd}\) week: distributed on a 1,5 month period of time

**Bio-fuel** – 2006-2007:

1\(^{st}\) week: Future and critical analysis for Belgium

2\(^{nd}\) week: distributed on a 1,5 month period of time
On behalf of the students:

- To dare to put one’s argument into critic;
- To locate and describe the various actors involved;
- To put into relation their various points of view;
- To be able to explicit a point of view expressed by actors and the ability to go back to one’s handwritten notes or documents;
- To position oneself in relation to the group and in relation to our own point of view.
On behalf of the training staff:

- In the choice of the topic and the problem of motivation

- In the philosophy of the IE:
  - Place of the IE: Center or periphery in the course of the curriculum?
  - Two contrasted IE’s aims: 1) exploration and reflexivity or 2) “solutions driven”;

- In the evaluation: "what do they make with this experiment afterwards?"

- At the organization level: The dispositif require a large training staff and an interested one.
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<th><strong>Restraints:</strong></th>
<th><strong>Driving forces:</strong></th>
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<td><em>Big investment</em> from the institution (in time, staff and logistic)</td>
<td>Students’ <em>backgrounds</em></td>
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<td><em>Cohabitation</em> of the IE with a more dominant classical teaching</td>
<td>The <em>geographical proximity</em> of the field or the case in hand</td>
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<td>Lack of <em>reflexivity</em></td>
<td>The <em>heterogeneity</em> of the subgroups</td>
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<td>Some students can lose their way and literally <em>freeze up</em></td>
<td>The <em>curiosity</em> towards the novelty of the approach and the opportunity to have a more <em>active role</em> in the “learning” process</td>
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<td>The <em>attitude</em> of the training staff</td>
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New Challenges for 2007-2008?

- Work with younger students (Master level);
- Experimentation with the use of a methodological and conceptual grid (« CATWOE » from Soft System Methodology);

C = customers (victims or beneficiaries);
A = actors (humans and non-humans);
T = transformation suggested;
W = worldview;
O = owner;
E = environmental constraints (taken for granted)
Way of capitalizing the students’ experiences of the I.E:

Our « territorial analysis seminar »:

- Limited number of students;
- The « exploration » of a controversy;
- Residential research seminar;
- Application of a predefined methodological framework (« Patrimonial analysis »);