

Learning experience through theoretical, practical and experiential knowledge: a case study in North Tuscany (Italy)

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Given the complexity and different social perceptions surrounding the sustainable land management, the challenge facing science is to develop learning environments to better understand agri-environmental situations and to support effective decision-making through collective action.

The increasing focus on systemic approach – related to both social and physical systems - poses new challenges for researchers in providing a learning environment where to develop “the useful knowledge” needed to provide practical decision support (Allen, W.J., 1996).

The case-study area is placed in a mountainous area in the North of Tuscany (Italy), which has suffered a process of marginalization and abandonment of agriculture, even if it still maintains a residential function. In that sense the research’s aim was to identify the priorities of the local community to “requalify” the relation between environment and agriculture by the light of the current social conditions.

The choice of this topic was based on the researchers’ perception; in fact the first impression got from the case-study area was the compromised landscape, in particular the local complex architecture of olive terraces (*external perception*).

The research steps were the following:

- 1) acquisition of information:
 - the collection of information concerning the socio-economic transformation and the implications on the environment by the telling of the local “old” people, using individual unstructured interviews (Pieroni P., Galli M., Brunori G., 2003b; Galli M., Pieroni P., Brunori G., 2002)
 - the collection of the views expressed by local trade associations, non-profit associations and authorities representatives, using semi-structured interview.
- 2) elaboration of information: the quantitative analysis of interviews pointed out a high perception of hydrogeological and hydraulic risk among local actors due to the abandonment of the practice to keep well operating terraces (*internal perception*).
- 3) sharing of information with local authorities: on the basis of the priorities given by local actors, the researchers and the local administrators submitted a project to some institutions that could fund scientific research. The project’s aim was to organize a Territorial Information System in order to solve environmental problems and to help with land planning

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In order to re-equilibrate the relation between agriculture and environment, the main results obtained were:

- 1) to switch the attention from the external perception (aesthetical quality of landscape) to the internal perception (hydrogeological and hydraulic risk) in relation to the change in land management among all actors involved;
- 2) to raise funds for research activity - by submission of a project - that can be immediately transferred to the local administrations to solve the problems that came out.

In conclusion the case-study emphasizes a systemic learning process, combining three phases: “learning for knowing”, characterising the specific situation; “learning for doing”, identifying the priorities of the local actors, “learning for solving”, sharing with the local community a research activity useful to solve the problems (Galli M., Pieroni P., Brunori G., 2003a; van Schoubroeck F., 1999; Kolb D.A., 1984)

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