



HAL
open science

Exploring the Concept of Sustainable Development Through Role-Playing

Arnaud Buchs, Odile Blanchard

► **To cite this version:**

Arnaud Buchs, Odile Blanchard. Exploring the Concept of Sustainable Development Through Role-Playing. *Journal of Economic Education*, 2011, 42 (4), pp.388-394. 10.1080/00220485.2011.606089 . halshs-00630990

HAL Id: halshs-00630990

<https://shs.hal.science/halshs-00630990>

Submitted on 17 Apr 2013

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

**EXPLORING THE CONCEPT OF SUSTAINABLE DEVELOPMENT
THROUGH A ROLE-PLAY**

Arnaud Buchs and Odile Blanchard*

April 2011

Abstract: The concept of sustainable development is used in everyday life by the general public, alongside researchers, institutions, and private companies. Nevertheless, its definition is far from being unequivocal. Clarifying the outline of the concept seems necessary. We have created a role-play for this purpose. Our article aims at depicting its main features and sequencing.

Keywords: education, role-play, sustainable development

JEL codes: A2, Q01

*Arnaud Buchs is an economics doctoral student at the Université Pierre Mendès-France (e-mail: arnaud.buchs@upmf-grenoble.fr). Odile Blanchard is an associate professor in the Department of Economics at the Université Pierre Mendès-France and corresponding author (e-mail: odile.blanchard@upmf-grenoble.fr). The authors are grateful to Associate Editor Paul W. Grimes and two anonymous referees for their comments.

The concept of sustainable development emerged three decades ago (IUCN 1980) and gained huge momentum after the release of the Brundtland report in 1987, which defined sustainable development as: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987, 43). The economic, social, and environmental spheres, which have become the three pillars of sustainable development, appear in filigree, as the report reads: “[it is] a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations” (WCED 1987, 46).

Since then, the reference to sustainable development has become part of collective rhetoric, and the concept has turned equivocal and protean (Nordhaus 1994). As Pezzey and Toman (2002, 2) put it: “overlapping and conflicting definitions rapidly proliferated. One result was that words such as ‘sustainability’ and ‘sustainable’ became common buzzwords—motherhood-and apple-pie concepts mouthed approvingly by anyone from media moguls to multinational mining companies—that often meant nothing more than ‘environmentally desirable.’”

Poor results in terms of learning associated with “usual lecture-recitation teaching pattern” (Joseph 1970, 91) have been well-known for decades (Dale 1954, 43). One way to help people understand the concept of sustainable development is to involve them in the learning process through role-plays. For six years we have developed and improved a role-play.¹ Its objective is to deepen the learners’ knowledge of the concept of sustainable development and to build critical thinking on how the concept is being overused by economic actors. Learners are invited to play the role of an actor officially fully involved in sustainable development and

critically examine whether the approaches adopted by the other actors (learners) can reasonably be qualified as sustainable.

As simulations have to be realistic (Bartlett and Amsler 1979; Alden 1999; Lowry 1999), our role-play is shaped to reproduce round tables where real organizations confront each other. This may be the case during side events which take place in the margins of official inter-governmental meetings (e.g., at the World Summit on Sustainable Development held in Johannesburg in 2002). Our tool is clearly not a scripted role-play; it rather aims at co-construction of knowledge.

ROLE-PLAY DESCRIPTION AND SEQUENCING

Sustainable development is a complex concept. A synthetic view, though very restrictive and open to criticism (Sauvé 2010) encompasses at least economic, social and environmental dimensions that are intertwined.

The role-play is primarily intended for graduate students who have previously been taught about the concept of sustainable development, and have attended classes on related topics. However, variants of the role-play make it accessible to other audiences, from middle-school students to adults. The whole session lasts between two and a half and three hours, depending on the number of players. The ideal number of players is 12 but the role-play is relevant between 9 and 18 participants.

Two classes prior to the game session, students are asked to study individually; this requires about six to eight hours overall. They have to retrieve information (using academic sources and/or via a webquest) about an organization that has been randomly assigned to them and is undisclosed to other players. At that time, they do not know anything about the role-play. At the end of this preliminary phase, they have to hand in a four-page assignment, which

comprises three parts: (i) the organization's official view / discourse / strategy on sustainable development issues, (ii) a critical assessment of the information collected, (iii) a short review of a concept that is related to sustainable development and to the organization that has been assigned to them. Studying a specific concept associated with sustainable development widens the students' knowledge around sustainable development issues. For example, students may choose the concept of "corporate social responsibility," "ecological footprint," or "social justice." The four-page document acts as a memo that has to be clear and concise. Such an exercise is designed both to develop the students' synthesis skills, and to help them in the perspective of the role-play.

Before the role-play starts, the teacher prepares the classroom to materialize the three dimensions of sustainable development with chairs and stickers that are posted on the floor. There should be a chair for each participant. Each sticker signals two dimensions: the major sphere is indicated in capital letters, the minor sphere appears in lower cases (e.g., ECONOMIC-social, SOCIAL-environmental, etc). The major sphere relates to the organization's core activities, while the minor sphere reflects the main area affected by the organization's sustainable development strategy. The stickers frame a circle covering all the possible MAJOR-minor spheres combinations. Table 1 shows examples of organizations that have been assigned to students over the years, the dimensions that the organization is expected to illustrate, and one of the associated concepts that students have explored.²

[Insert table 1 about here]

The participants, acting as decision makers, have to prepare a five-minute speech in which they are required to emphasize how their organization is addressing sustainable development issues and to briefly present the related concept that they have previously selected

(e.g., corporate social responsibility, ecological footprint, social justice). They are not allowed to dig into the paper they have handed in, so as to make their speech spontaneous and creative. Then they have to choose the chair that faces the sticker that best matches their view of the organization's sustainable development approach, according to the content of the speech they intend to deliver. They are allowed to move chairs if they think it is relevant.

When all the students are seated, a first round of the role-play may start. The instructor selects the student who will start role playing. The selection criterion may be the most well-known organization, or the student with the best speaking skills. Students are invited in turn to deliver the speech that they have prepared. They must address the previous participants' speeches, so as to make the role-play livelier (e.g., referring to table 1, build a partnership between Oxfam and Grameen Bank). At the end of their speech, they must justify their sticker positioning. Furthermore, while a student is role-playing, other students may ask short questions or very briefly react. Finally, the student who is sitting opposite in the circle must silently analyze whether the speech delivered is consistent with the place the speaking student has chosen, i.e., consistent with the indications on the sticker.

This feedback is used as an introduction to the second round of the role-play, which is much shorter. After listening to the feedback of the student sitting opposite to them, participants have to address the criticisms about their positioning as well as the verbal attacks that may have been expressed against their organization in the first round.

It is worth noting that the teacher does not intervene at all in the two rounds, except to make sure that the time limits are respected. The last sequence of the session is devoted to wrapping up what the students have learned about the concept of sustainable development as

well as its related concepts. The teacher may tackle questions in the concluding phase, so as to raise the students' awareness of some points that they might have overlooked otherwise.

The stickers are a pedagogical tool, but they do not interfere with the role-play per se. They are landmarks, as they materialize the positions that the students have adopted and according to which their speeches are tailored (e.g., MAJOR SPHERE-minor sphere). Depending on the students' presentations of the sustainable development strategy of their organizations, it may well happen, for example, that a multinational firm such as Total be positioned in the ECONOMIC-social or ECONOMIC-environmental spheres. Some positions may be "congested" while some others deserted. Although initially the instructor has purposely not proposed to the students that they can sit in the middle, at the intersection of the three spheres, some students may spontaneously decide to do so, deeming that their organization's strategy covers the three spheres. As a consequence, students may want to move some of the chairs that have initially been positioned by the instructor around the circle. Our own experience has revealed that a student moves his/her chair to the center of the circle about every other session of the role-play. In this case, as no one will sit opposite to the student seated in the middle, the instructor names the person who will critically assess his/her classmate's central position. The (ir)relevance of the students' choices raises fruitful debates in the second phase of the role-play.

GRADING

Grading is based on the paper that the students have handed in and their performance when role-playing, with equal weights to both tasks. The evaluation criteria for the paper take into account the relevance of the content (50 percent), including the critical review, the relevance of the internal structure (30 percent), and the bibliography (20 percent). The criteria pertaining to the

role-playing performance emphasize on the one hand creativity and liveliness (50 percent), on the other, reactivity to the other students' performance and critical thinking (50 percent).

VARIANTS OF THE ROLE-PLAY

Several variants of the role-play may be considered, depending on the audience and their prior awareness of the concept of sustainable development. For example, a first variant may be to perform the role-play as an introduction to a course on sustainable development. The goal is threefold: raising the students' interest in class content; showing the students how their views may be biased, through exchanges with the other students; and, giving the teacher an overview of the students' awareness and knowledge about the concept. In this variant, students do not prepare any work before the role-play and do not explore concepts relating to the organizations. At the beginning of the role-play session, they are randomly assigned an organization and given a short note about its core activities. The organizations selected by the teacher are well-known, so that the students may have some prior knowledge about them. Students may have fifteen minutes to prepare their arguments and build their role.

A second variant may be to perform the role-play with adults not particularly aware of the concept of sustainable development (e.g., at a public event), or alternatively with middle or high school students. In this case, the role-play is a kind of "hands-on" activity that allows adults or young students to express their views on sustainable development. In this variant, the wrap-up session by the instructor is very important: (s)he may draw on the discussions that have unfolded to underscore potential misconceptions, expand on the concept and bring a better understanding of it.

FEEDBACK

As Sutcliffe (2002) recalls it, many studies have shown that role-plays are fruitful tools to teach (and, thus, to learn) economics. In addition, they contribute to a positive change in classroom dynamics (Gremmen and Potters 1997; Oberhofer 1999).

As expressed by students via anonymous assessment questionnaires (administered right after the game and one year thereafter), the role-play helps to embrace the complexity of the concept of sustainable development. In the students' own words: "the fact that we have to defend the sustainable development strategy of an organization is helpful in deepening our knowledge of the concept of sustainable development." As each learner has to play a distinct role and defend an associated concept, "the game offers an overview of the diversity of sustainability-related strategies and discourses." "It helps to identify the frequent gap between discourses and practices and to develop critical thinking." "It shows that the actions that may be labelled 'sustainable' by an organization may not qualify for such a label when considering the three spheres of the concept of sustainable development."³

After six years of using and improving the role-play, students' feedback has shown that it is also helpful in enhancing other skills, such as creativity and communication. As one student wrote, "the game helped me to increase my capacity to convince."

CONCLUSION

The concept of sustainable development was built in 1980, has spread rapidly, and is now common place in multiple arenas. However, its meaning varies widely depending on who uses it and on which of the three basic economic, environmental and social spheres primary emphasis is placed. This semantic instability makes it difficult for students and the general public to grasp the stakes behind the concept. In this context, we have created a role-play that aims at deepening the

knowledge of the concept of sustainable development. It teaches theoretical snapshots, practical concepts, and key issues related to sustainable development, in addition to basic knowledge acquisition. The participants' feedback tends to show that we have reached our goal.

NOTES

¹ A very simplified version of the game was first elaborated in 2004 by Arnaud Buchs, Willy Lavastre and Alain Piallet, in the framework of a seminar class held by our colleague Catherine Figuière, to whom we are thankful.

² Students may well choose other concepts than the ones suggested in table 1. But they must get an agreement from the instructor about the relevance of their concept.

³ All quotes are taken from the students' assessment questionnaires.

REFERENCES

- Alden, D. 1999. Experience with scripted role-play in environmental economics. *Journal of Economic Education* 30 (2): 127–32.
- Bartlett, R. L., and C. E. Amsler. 1979. Simulations and economics. In *Simulations in higher education*, ed. E. Thorson, 105–23. Hicksville, New York: Exposition Press.
- Dale, E. 1954. *Audiovisual methods in teaching*. Revised edition. New York: The Dryden Press.
- Gremmen, H., and J. Potters. 1997. Assessing the efficacy of gaming in economic education. *Journal of Economic Education* 28 (4): 291–303.
- International Union for Conservation of Nature (IUCN). 1980. *World conservation strategy: Living resource conservation for sustainable development*. Gland: IUCN.
- Joseph, M. L. 1970. Game and simulation experiments. *Journal of Economic Education* 1 (2): 91–96.
- Lowry P. E. 1999. Model GATT: A role-playing simulation course. *Journal of Economic Education* 30 (2): 119–26.
- Nordhaus, W. D. 1994. Reflections on the concept of sustainable economic growth. In *Economic growth and the structure of long-term development*, ed. L. Pasinetti and R. Solow, 309–25. London: Macmillan.
- Oberhofer, T. 1999. Role playing in the history of economic thought. *Journal of Economic Education* 30 (2): 112–18.
- Pezzey, J., and M. A. Toman. 2002. *The economics of sustainability: A review of journal articles*. Discussion Paper 02–03. Washington DC: Resources for the Future.
- Sauvé, L. 2010. Éducation et formation pour l'avènement d'une écosociété. (Education and training for the advent of an eco-society) In *Le développement durable. De l'école au campus*

(Sustainable development. From primary school to campus), ed. O. Blanchard, D. Lecomte and M. C. Zélem, 15–26. Paris: L'Harmattan.

Sutcliffe, M. 2002. Simulations, games and role-play. In *The handbook for economics lecturers*. Bristol: The Higher Education Academy. The Economics Network. <http://www.economicsnetwork.ac.uk/handbook/games/> (accessed December 12, 2010).

World Commission on Environment and Development (WCED). 1987. *Our common future*. Oxford: Oxford University Press.

TABLE 1: Examples of Organizations Represented in the Role-Play

Organization	Core activity	Suggested MAJOR-minor Spheres	Suggested Associated Concept
<i>Total</i>	International oil and gas company, chemicals manufacturer	ECO-eco	Corporate social responsibility
<i>Grameen Bank</i>	Bank offering financial services to the poor, to help them fight poverty, remaining profitable	ECO-soc	Micro-credit
<i>Zipcar</i>	Car sharing company	ECO-env	Energy efficiency
<i>Greenpeace</i>	International environmental organization	ENV-env	Grassroot movement
<i>The Climate Group</i>	International non-governmental organization (NGO) aiming at a low-carbon world economy	ENV-eco	Carbon offsets
<i>Earthwatch Institute</i>	International environmental charity for scientific research and education	ENV-soc	Citizen science
<i>Survival International</i>	International NGO supporting tribal peoples worldwide	SOC-soc	Land rights
<i>Oxfam</i>	Confederation of NGOs aiming at ending poverty and injustice	SOC-eco	Food security
<i>Education for Global Warming Solutions</i>	NGO organizing the educational initiative “National Teach-in on Global Warming Solutions”	SOC-env	Clean energy

Source: Authors.