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Learning Through Simulation Games

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Today, the increasing availability of information and the complexity of the problems that need to be addressed require universities to not only equip students with the skills necessary to understand the debates and issues relevant to specific disciplines, but also with meta-skills (the ability to undertake research, organize meetings, speak in public, and defend a position through reasoning); the latter can be applied in diverse environments (at school and, more specifically, in the workplace).

This change entails the need to identify teaching methods that respond better to the new requirements. The main reason for such a need is the emergence of a global knowledge society. As Bursens and Van Loon (2007: 2) point out, "this era—the 'information age'—can be characterized by an 'infinite, dynamic and changing mass of information' (Dochy and McDowell, 1997: 280) and requires cognitive, meta-cognitive, and social competencies of its citizens. Students need to achieve not only a sound base of discipline specific knowledge and skills but also a number of 'higher order' skills and attitudes. In this way, students should become able to cope with ever-changing environments and abstract and complex work processes." In light of these developments, many contemporary teaching activities adopt the problem-based learning (PBL) approach. PBL is "the learning that results from the process of working toward the understanding or resolution of a problem" (Barrows and Tamblyn, 1980: 18). The theoretical approach that underpins these teaching methodologies is one and the same, i.e., constructivism, whereby what we learn is the result of the construction, interpretation, and modification of our representations of reality, which are, in turn, the result of our experiences with the real world. Simulations are one of the main instruments adopted in the PBL approach.

Simulations have acquired prominence in contemporary teaching, especially in international relations (Brunazzo and Settembri, 2012). The indexes of leading journals on contemporary politics, teaching, and the discipline of political science are evidence of how extensive the use of simulation games is and how complex and structured they have become. The pedagogical and educational foundations of simulations are based on the so-called "student-centered" approach (Jonassen and Land, 2000), where students actively participate in a learning process that is "constructive, cumulative, self-regulated, goal-oriented situated, collaborative, and individually different" (De Corte, 2000: 254).

From an educational point of view, simulations have been widely used in several fields including international relations, economics, and sociology. Certainly, simulations have not been used with the same frequency since the 1970s. In the late 1980s, Dorn (1989) identified a peak in scientific contributions on simulations between 1971 and 1975 and a contraction between 1981 and 1986. However, the continuing importance of simulations and role-playing games is confirmed, for example, by the existence of *Simulation and Gaming*, a scientific journal established in March 1970 that is dedicated to simulations, and several international associations working exclusively on this issue¹.

Despite the many examples and contributions (or probably because of them), it is not easy to define a simulation (or a "simulation game"). In fact, to be precise, a distinction should be drawn between simulation games, games-simulation, gaming simulation, games with simulated environments, teaching games, learning games, instructional games, and educational games. Thus, here we embrace the minimalistic definition proposed by Dorn (1989: 2-3):

A game is any contest or play among adversaries or players operating under constraints or rules for an objective or goal. A simulation is an operating representation of central features of reality. A simulation game is an exercise that has the basic characteristics of both games and simulations. Consequently, simulation games are activities undertaken by players whose actions are constrained by a set of explicit rules particular to that game and by a predetermined end point. The elements of the game constitute a more or less accurate representation or model of some external reality with which players interact by playing roles in much the same way as they would interact with reality itself.

The adaptability of simulations is one of the reasons for their success. A simulation can be organized for a few or many participants, and a number of observers. Participants may be homogeneous with regard to several variables (eg., a class of students or a group of officials). The rules may differ in their degree of specificity. The skill level of participants can be varied and they may have access to various amounts of resources. A simulation can also be organized according to the time available. The aim of a simulation is, in general, to achieve a goal (eg., approval of a legislative text) through interaction among the participants (Brunazzo and Settembri, 2012).

In a *role-playing* simulation, each participant is given a role and is required to act according to their character. To this end, the characteristics and objectives of the person that he/she is playing become an important resource for each participant. Playing a role can be very difficult; especially if the participant does not agree with the ideas of the character they are playing. However, this is one of the factors that make a simulation useful: it forces the participant to assume the guise of a "stranger" and to understand their point of view. The participant may play the role of a real person (the president of the European Council), an imaginary person (King of Alpha Centauri), an individual (head of government), or a collective actor (European Council).

A simulation consists of individual and collective activities. The former may, for example, comprise the preparation of positions, writing reports or press releases, or the drafting of amendments; the latter comprises the more or less formalized interaction among participants. The interaction may take place during the formal simulation sessions or after the session (eg., by e-mail or through informal contacts). This means that simulation activities have a formal beginning and end. Anything can happen between those two moments as long as it remains within the limits established by the simulation: while players can bargain according to the initial position of the character that they represent, they are not permitted to go beyond their mandate. This does not mean that the role remains the same: characters may change their minds, as happens in any real-life decision-making process. As in reality, however, changes of position must be justified.

The fact remains that a simulation is a simplification of reality. Some positions may be caricatured and certain rules oversimplified. There is no minimum degree of simplification: it depends on the number of actors, on the process to be simulated, and on the rules to be followed. Therefore, the simulation of a decision-making process that in reality involves numerous actors requires to be carefully simplified if there are very few participants. Experience, but also common sense, will guide the teacher in selecting the process to be simulated.

The usefulness of simulations has sometimes been questioned by scientific literature, especially in international relations courses (Butcher, 2012: 177). However, other scholars have

emphasized how simulations enable students to:

- Benefit from active learning defined as "anything that involves students in doing things and thinking about the things they are doing" (Bonwell and Eison, 1991: 4);
- Experience relevant aspects of the real world that had previously only been studied in
- abstract through traditional courses;

• Feel the impact of the stress and constraints found in crisis situations (e.g., time, information availability, and information reliability);

• Witness the prevalence of different decision-making models under specific circumstances (e.g., rational actor model, governmental process model, organizational process model, and groupthink);

• Measure the importance of personalities, trust, and personal relationships in the decisionmaking process as well as the role of leadership;

 Understand the nature of public opinion and assess its reliability as a tool for decision making;

• Appreciate the importance of information in decision making and recognize the remarkable amount of information that policy-makers need about current affairs, historical situations, scientific progress, and so on;

- Observe the interaction between domestic and international politics;
- Assess the validity of different explanations of policy-making in different situations (e.g., elitism, pluralism, and hyperpluralism);
- Gain first-hand experience in empirical research;
- Acquire a range of skills that may be valuable in a future profession, such as the ability to place oneself in someone else's shoes, organizing events, reading between the lines, understanding the nuances of diplomatic language, and realizing the importance of reasoning and rhetoric to convince or to refute;
- Finally, given the fact that the teacher is always in the background, to work as part of a group and help each other.

There is no straightforward approach to prepare a simulation exercise: the design of a simulation can be tailored to specific pedagogical needs (Brunazzo and Settembri, 2012). For example, teachers of European Union (EU) politics have utilized simulations to explain to their students the functioning of the European Parliament (Jozwiak, 2012), of the European Council or Council of the Union (Jozwiak, 2012; Kaunert, 2009; Zeff, 2003; Galatas, 2006), of the Council Presidency (Elias, 2013), of the Commission's staff (Giacomello, 2012), or of some specific features of the EU decision making (Switky, 2004; Bursens and Van Loon, 2007; Van Dyke et al., 2000).

Although the constructivist approach is deliberately celebrative of simulations as tools to teach and learn how the EU works, simulations do not constitute a panacea. For example, they do not replace traditional learning, and they work better when they build on solid knowledge about the political dynamics and its institutions. Moreover, they have intrinsic limitations regarding reproducing the dynamics of real negotiations. Four of these limitations concern timespan, socialization, contingencies, and complexity.

The duration of a simulation exercise is limited to a few weeks at most. Real negotiations rarely last less than one year; rather, they often last for more than two years. The difference is not so much in the amount of time taken by an institution to discuss an issue, which is limited, but the time taken for the issue to be debated at a technical level and, more importantly, addressed between meetings. In a simulation, the negotiation must necessarily proceed through an intense sequence of meetings concentrated into a few days or weeks. There is little or no time for national positions to be properly articulated, for contacts to be established, or for like-minded delegations to recognize each other. In simulation exercises, issues are inevitably dealt with more superficially than in real negotiations.

A related issue is socialization. The participants in a simulation play their roles for a limited number of days and have little time to familiarize themselves with each other's preferences, skills, and attitudes, whereas real negotiators get to know each other relatively well. In some cases, negotiators are required to meet several times a week. They learn to cooperate, understand difficulties, accommodate preferences, and most importantly, build and sustain trust in their counterparts. Real negotiators often operate in small circles or communities that develop not only specific codes of behavior but also a genuine mutual understanding. Simulations do not allow for this.

Moreover, real negotiations do not happen in a vacuum: they are embedded in a specific context that determines their pace, their development, and their outcome. These factors cannot be fully reproduced in a simulation: an imminent election, a critical juncture, or budgetary reasons may compel negotiators to conclude within a certain deadline. In addition, the threat of a pandemic, the imminence of an international conference, or the sudden fall of a national government may have a decisive impact on a negotiation. Simulations cannot cope with these contingencies well.

Finally, real negotiations are inevitably more complex than simulations, even if they are based largely on the same documentation. Simulations usually take place in one language, whereas real negotiations are multilingual. Simulations cannot focus on highly technical issues that are impenetrable to non-experts. On the contrary, real negotiations can be painfully complex and require experts to discuss the details of certain provisions over several weeks. Further, the participants in a simulation are alone, whereas a national negotiator can and does draw on a huge body of expertise available at various levels of the public administration. Simulations are by definition concerned with a single issue, but this is rarely the case for real negotiations: concessions are sometimes made and compromises reached across procedures, and not necessarily at the same time. This dynamic can be replicated in simulations to a very limited extent.

As stated above, the scientific literature is divided on the efficacy of simulations. Some authors are enthusiastic: they only see the positive effect of simulations. Others are more critical: they consider the traditional approach more useful and regard simulation as some sort of trivialization of the teacher's activity. Our position is midway between these two. Simulation games can be effective if they are well organized and if they go together with other formative opportunities. In other words, simulation games demonstrate their potential only if they are included in a teaching course structured into different learning opportunities, and based on both "traditional" and "innovative" methods. It is likely that not all the students will react positively to the simulation, given that they also react differently to more traditional classes. However, our experience is that simulations motivate students to learn more about politics.

Notes

* Pierpaolo Settembri's views are expressed in a personal capacity and may not under any circumstances be regarded as stating an official position of the European Commission.

¹ International associations include the Association for Business Simulation and Experiential Learning (ABSEL), the International Simulation and Gaming Association (ISAG), Simulation and Gaming Association of Japan (JASAG), the North American Simulation and Gaming Association (NASAGA), the Society for Intercultural Education, Training, and Research in the USA (SIETAR-USA), and the Society of Simulation and Gaming of Singapore (SSAGSg).

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