

Multilevel Simulation Games in EU Studies. Powerful Learning Environments in Political Science?

Peter Bursens

**Department of Political Science
Universiteit Antwerpen**

peter.bursens@ua.ac.be

Carolien Van Loon

**Department of History
Universiteit Antwerpen**

carolien.vanloon@ua.ac.be

**paper to be presented at the European Union Studies Association
Tenth Biennial International Conference
May 17-19, 2007, Montreal, Canada**

(draft, not for citation)

1. Introduction: Constructivism, Powerful Learning Environments and Active Learning

Since educational psychologists agree that effective learning must be seen as a “constructive, cumulative, self-regulated, goal-oriented, situated, collaborative and individually different process of knowledge building and meaning construction” (De Corte, 2000: 254), contemporary innovation projects in the field of higher education are stamped with labels as ‘student-centred’ and ‘competence-based’ education. This conflicts with the traditional approach to learning in which the learning process was reduced to passively absorbing knowledge provided by the teacher. The new educational principles evolved from an increasing interest in the quality of higher education due to both changes in job market demands on graduates (Vandenbergh *et.al.*, 2006) and the global knowledge society (Tynjälä *e.a.*; 2003; Tynjälä, 1999): it is argued that this era – the ‘information age’– can be characterized by an “infinite, dynamic and changing mass of information” (Dochy & McDowell, 1997: 280) and requires both 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.

The constructivist learning paradigm puts that learning is actively constructed by the learner (Birenbaum, 2003). Learning must be seen as an “active process in which learners construct their own meaning, and build internal and personal representations of knowledge” (Vermetten *et.al.* 2002: 265). These ideas gave rise to the design of new learning environments and educational methods characterized as ‘powerful learning environments’ (PLE) responding to the following guiding principles (De Corte 1996, 2000):

- learning environments support effective learning processes through a good balance between personal exploration on the one hand and systematic instruction on the other
- learning environments foster students’ self-regulation of their learning by means of becoming organizers of the own learning process
- learning environments use authentic contexts that offer possibilities with regard to learning materials, collaboration and personal meaning for students

- learning environments take into account individual differences among learners with regard to cognitive, affective and motivational aspects
- learning environments integrate the acquisition of general skills within the subject-matter domains

An additional guiding principle was suggested by Dierick & Dochy (2001) who promote the integration of learning, instruction and assessment and plead for alternative assessment methods with regard to powerful learning environments, such as peer assessment, portfolio-techniques and case based evaluation. In this view, assessment is regarded as a building stone for the learning process. In this sense they echo Gibbs (1999) who argued that student learning is strongly guided by the way in which they will be assessed. Assessment therefore can be used as a tool for learning (Dochy & McDowell, 1997), provided that it is congruent with the instructions and in line to what students should learn (Biggs, 2003).

The rise of constructivist theories of learning and the development of the idea of a powerful learning environment has triggered a variety of new teaching methods and learning environments (Struyven *et.al.*, 2006). Traditional lectures, which were very common in the instruction paradigm (Barr & Tagg, 1995), seem to disappear in favour of active teaching methods such as project based learning, computer based instruction, simulations, problem based assignment tasks, writing tasks et cetera. All these methods promote active learning, defined as “anything that involves students in doing things and thinking about the things they are doing” (Bonwell & Eison, 1991: 2). Active learning requires active involvement of students rather than being passive with regard to their learning process (Snyder, 2003). It is suggested that active learning methods contribute to deeper student learning beyond the levels of reproduction and rote learning (Struyven *et. Al.*, 2006: 279-280). Active learning results in greater retention of subject-matter, foster problem-solving skills and has a positive influence on motivation for future learning (Snyder, 2003).

According to Meyers & Jones (1993), active learning consists of three interrelated factors. The first factor points to *cognitive activities* which allow students to acquire and question new knowledge, such as listening, reading and writing. The second factor refers to *learning strategies* which combine the basic elements and are stimulated in active teaching methods such as case studies, debates, problem solving et cetera. The third factor deals with *teaching resources* used to encourage students to participate in the learning activities, such as

technology, course materials etc. Snyder (2003) elaborated on this by proposing characteristics of active learning: emphasis on analytical and critical thinking skills, active student participation, emphasis on exploring attitudes and values held about course material, focus on 'higher' thinking rather than on knowledge gathering, more and faster feedback (p. 61).

In this paper we present the introduction of a multi-level simulation game in a political science curriculum. We aim to assess this innovation in teaching and evaluating by means of the criteria of the powerful learning environment. The multi-level simulation game was developed for an MA course entitled Multi-level Governance. This course final aims are 'to gain knowledge of the origins, meaning and functioning of multilevel governance, to develop a critical attitude towards the complexity of decision-making and to develop negotiation and representation skills'. This course (6 ECTS-credits) is part of the MA Program Political Science at the University of Antwerp (Belgium). As from 2007-2008, the simulation game will become part of a new course 'Europeanization' in a new MA, with similar aims in terms of generating knowledge, attitudes and skills, but more narrowly focused on the adaptation of member states to European integration. In this paper, however, the simulation game is treated as part of the existing Multi-level Governance course. In the next paragraphs, we briefly describe the multi-level governance approach and present a short introduction in simulations in political science. The core part of the paper discusses the extent to which introduction of the simulation lives up to criteria that have been operationalized by De Corte (1996, 2000) and Snyder (2003). The central question of the paper therefore is: 'Does our simulation correspond with Corte's principles of a powerful learning environment and with Snyder's characteristics of active learning?' Both teaching methods and assessment will be dealt with.

2. Multilevel-governance and simulations in political science

Multi-level governance is a well acknowledged concept in political science and EU studies. The dispersal of authority is the basic principle of the multi-level governance concept: decision-making no longer solely rests with one actor (e.g. the national government). In stead, multiple levels of government and private stakeholders are both formally and informally involved in decision-making processes. This diffusion of authority makes decision-making extremely complex.

The concept of multi-level governance was first launched by Marks, Hooghe en Blank (1996) in their analysis of the European regional policy. EU regional policy was triggered by the existence of an inequality in prosperity between the different regions in the European Union. Through its regional policy the European Union tries to reduce these inequalities by transferring resources from richer regions to poorer ones. A crucial empirical observation is that next to the national governments and the European level, also subnational actors became formally and informally involved in the decision-making with respect to these transfers. Local and regional actors were found to bypass their national governments by lobbying directly at the European level and by forming coalitions with other European, national and regional actors. As a result supranational, national and subnational actors share responsibility for the European regional policy and for the redistribution of means in particular (Allen, 2005: 214).

The decision-making process in regional policy consists of three successive stages. First the European Commission designs a proposal for the European multi-annual budget and for the European regional policy. During national internal negotiations, national and subnational actors define their national positions on these two proposals. In the second phase, national actors defend these national positions in the European Council. National representatives and the European Commission negotiate the European multi-annual budget and the regional policy. In other words, national delegates decide the budget for the regional policy and the rules governing its use. During this phase the cake gets divided. The crucial question is; “Which region and which country, gets how many financial resources?”. During the third and last negotiation stage, the European Commission, national and subnational actors are involved in internal, national negotiations again. They try to agree exactly how to spend the resources given to them by the European level.

This European regional policy is a classic and recurring example in courses on multi-level governance. Most of the time these courses stick to lectures on the origins of the concept, definitions, empirical findings, ... and therefore stay bound to an abstract, theoretical level. As a consequence students know how to define multi-level governance, but are often not capable to function and solve problems in a real, complex multi-level environment. By placing students in a genuine, multi-level situation one could overcome this shortcoming. Since students are not allowed at the negotiation table when ambassadors and ministers discuss the European redistribution of resources, alternatives need to be found. One such an alternative is a simulated negotiation. A simulation presents a simplified imitation of the reality in which students act obeying to the rules of the real setting. Negotiation simulations

are, of course, not new in political science education. However, most of the time these exercises are rather elementary, i.e. limited to only one negotiation at one specific level of authority. To simulate a multi-level negotiation, multiple levels of decision making should be incorporated in the bargaining throughout a longer period of time because decisions in an earlier stage affect the negotiations in a subsequent phase. A second and inherent challenge of such simulation exercises is the assessment of students' performance.

3. Training general skills in an authentic learning environment

Considering the difficulty of letting students participate in a real life multi-level governance process, simulating the decision-making concerning the European regional policy offers a good substitute. At the same time, however, a perfect copy of reality is impossible to achieve. It is simply impossible to simulate the decision-making process of EU regional policy in every detail. A class of 50 students doesn't allow for every actor to be incorporated in the game. Also the time span of the course makes it impossible to deal with every single complex and technical issue. Therefore, the following simplifications were made. Firstly, not all actors that play a part in the EU regional policy were involved: no local actors were incorporated and only those national and regional actors that offered sufficient information on their positions were involved. Secondly, we combined the negotiations on the multi-annual budget and the regional policy. In reality, separate decision-making paths develop each of these two policy issues, but students playing the European Commission in our simulation got the instruction to integrate both policy issues in one single proposal. As a result, the budget and the regional policy were treated as an integrated whole in the rest of the simulation. Thirdly, issues that were too technical were left out. The focus was clearly put on political aspects.

Although our negotiation game didn't reflect the decision-making on European regional policy in every detail, students nevertheless had to work out the position of their actors as close to reality as possible. At the same time, all three successive negotiations phases (the first internal national negotiations, negotiations in the European Council and the second internal national negotiations with the European Commission) were preserved. Each stage consisted out of a formal negotiation round in the classroom, preceded by informal conversations on the electronic learning platform (Blackboard) and in the corridors. This way the simulation stayed rather close to reality and offered an interesting challenge to the

students: they moved around in an authentic learning context and learned how to act in a multi-level governance situation.

The simulation game is a bridge between an academic education and a multi-level workplace. It offers students the opportunity to learn general skills, needed in real multi-level work environments, where students could end up after their studies. Many of our students aspire international carriers in business or in public authorities: they want to work as diplomats, for the ministry of foreign affairs, for non governmental organisations, international institutions, multinationals etc. In these working environments they are going to be directly confronted with the complexity of multi-level governance. The simulation can be seen as part of a preparation for this working context. During the simulation, students not only experience a multi-level setting in an authentic learning environment, but they are also trained in several skills that are very useful for political and public officers. Solving problems in group, argumentation and negotiation skills are but three skills that are vital for the functions listed above. During the simulation, students went through three subsequent negotiation rounds. They didn't just passively observe these negotiations, but they actively took part. The students defended their actors' interests and tried to reach an agreement with the other participants. To do this properly they had to plan a flexible negotiation strategy and deal with the different dynamics of the negotiation rounds. Besides negotiation activities, the students tried to persuade their opponents of the importance of their country's interests. They invalidated the arguments of their rivals, hence training reasoning and argumentation skills. During each negotiation round the students had to reach an agreement by consensus. Every involved actor had to agree on the national position, on the redistribution of resources and on plans on how to use resources. The students tried to find an acceptable solution for their various and opposite interests, hence learning how to solve problems in a group setting.

4. Striking a balance between personal exploration and systematic instruction

Considering the skills of negotiating, reasoning and problem-solving in a group setting, social interaction is crucially present in the simulation game. The students prepared the positions and negotiation strategies for the European Council of their countries in groups. When things weren't that clear, students turned to their group for more explanation. While the instructor retreated in the background, students helped each other. Besides the cooperation among students, a broad offer of learning material delivered extra support for the students. A scenario of the simulation was at their disposal at all times. This scenario described the

different phases of the simulation in every detail. It accurately described what would happen, when exactly and which tasks students had to prepare. In addition, students also received a calendar with important deadlines, an extensive list of references on European regional policy and documents with negotiation and argumentation hints. Students playing the European Commission were offered a rudimentary draft for the proposal of the Commission. This draft reflected the structure of the proposal and listed the issues that had to be discussed in the document. This helped the members of the European Commission to get started with the development of the proposal. Students that played a regional or national actor also got assistance as they were given an elementary outline of their country's positions. All information was put available on the e-learning platform allowing students to check the learning material anywhere and at all times. In this e-learning platform, multiple panel discussions were put online. Written tasks, such as position and strategy papers, were posted on panel discussions. And last but definitely not least, multiple panel discussions were designed for the informal negotiations. After the simulation, the students judged the learning material as useful. They especially stipulated the scenario as clarifying and considered the learning material as a successful guidance.

Offering a broad range of learning material supported students during the simulation exercise and made it easier for the instructor to stay in the background. Students and their individual experiences were more put in a central place. As active participants, they personally experienced multi-level governance in all its complexities. By means of the simulation they could link their theoretical knowledge to the practical, real world. As a result abstract, theoretical concepts acquired a more concrete and personal meaning for the students. This concrete meaning and the personal experience of the complexity stimulated a better understanding and a critical attitude towards complex political decision-making with the students. In sum, the simulation offered an authentic learning environment with many possibilities in regard to personal meaning, learning material and collaboration.

Obviously, the students were active participants during the simulation. But it was more: they played the central characters and were more prominently present than the instructor. He didn't intervene throughout the negotiation rounds and left the directing function with the students. During the simulation of European Council for example, one country was appointed to fulfil the chairmanship. These students directed the negotiations and granted the floor to the different countries. He followed the negotiations as a spectator. The

students had to take the initiative. They made the decisions and determined the course of the negotiations. They also defined their actors positions themselves and wrote the initial proposal of the European Commission. Step by step they personally explored how multi-level negotiations could take place. This being said, students were not totally left to themselves. We already mentioned the learning material and the scenario. Although the instructor kept a low profile during the simulation, he fulfilled a vital guiding function. Before the negotiation simulation opened, several introductory lessons were taught. In more classic lectures the lecturer introduced the basic principles of multi-level governance, of the multi-level aspects of the European Union and of the European budgetary and regional policy. The instructor also presented some fundamental negotiation tips through a brief introductory role play. The instructor was easy approachable thanks to the electronic learning platform. In short, systematic instruction was present in the course and intensively and alternated with personal exploration.

The balance between systematic instruction and personal exploration finds its translation in the debriefing session. This feedback moment in group was held after the simulation and implied a thorough evaluation of the whole negotiation game and the experiences of the students. During the debriefing round students reflected in group on the simulation. The instructor asked question to probe students' experiences, adopting an open attitude and again keeping a low profile. Next, a class discussion with students expressing their opinions, followed. Students reflected on their experiences and analysed them in group. At the same time, some instruction was present during this debriefing. The instructor intervened to assist the students to link the theoretical knowledge on multi-level governance to their experiences during the simulation and to the real world. As a result, a balance between personal exploration and systematic instruction was also present in the moment of debriefing.

5. Self-organising of learning experiences and students' differences

As mentioned above, students could consult the learning material any where and at any time thanks to Blackboard. They were not dependent on an instructor handing out the learning material. The students themselves emphasised that it was especially important that the learning material was available on time, allowing the students to plan their preparations and their learning activities ahead. The organisation of their own learning process didn't stop at this level. During the debriefing session most of the input came from the students. The

instructor only assisted them. Students talked about their experiences, their successes and failures during the negotiations and about what that they could have done differently. Again, the students themselves were responsible for this part of the learning process, being self-regulating and organising their learning process themselves.

Considering the responsibility lying with the students, it was extremely important that the students were motivated. The success of the simulation depended on their motivation. To stimulate the students we took their individual differences into account. Some students are fascinated by particular countries and regions, some like to play a more carrying role, like the country that fulfils the chairmanship in the European Council, while others don't feel at ease with this extra responsibility. Because these individual characteristics could have an impact on the motivation of the students, we let the students themselves choose the roles to represent in the simulation themselves.

Besides affective and motivational differences, students also differed in their pre-existing knowledge on the matters. Some were already very familiar with the European Union, European decision-making or even with the European regional policy. For others all of this was quite new. Although we gave introductory courses on these subject matters, some individual differences in knowledge remained. But these differences turned out to be an asset rather than a disadvantage. Students with less pre-existing knowledge on European issues posed their questions to their colleagues with more background in EU issues. In sum, our simulation tried to take cognitive, affective and motivational differences between the students into account.

6. Assessment as a tool for learning

As for every other course, students also needed to be evaluated. A summative, traditional examination would only test the theoretical knowledge on multi-level governance of the students. Such a traditional examination would give the students the wrong message, i.e. to concentrate on memorising definitions and on the reproduction of other theoretical concepts. The skills would not get the priority envisaged. Solving problems in group, negotiating and arguing would not be assessed and therefore not be acquired: from a strategic point of view it wouldn't be opportune for students to train skills if they would not be evaluated. After all, students' learning is strongly guided by the way they are assessed; making assessment is an important tool for learning.

Knowing all this, we didn't choose for a summative, traditional evaluation. In stead, we evaluated multiple tasks of the students. They had to prepare short papers on the positions and the negotiation strategies of their actors for every negotiation round. The most important criteria for the evaluation of the position papers was the correctness of these positions. We also evaluated the strategy papers. These gave a first clue whether or not the students knew how to use negotiation skills during the simulation. Because these tasks were all evaluated, students paid substantial attention to this preparatory work. Nevertheless, an evaluation of these tasks is not the same as an evaluation of the ability to solve problems in group, nor of negotiation and argumentation skills. Only by using the negotiation rounds themselves as an occasion for assessment, students would concentrate on training and acquiring skills. Therefore, also the negotiation performance of the students during the three rounds was assessed. We didn't attribute arbitrary points to the performance of the students but used an elaborated scoring rubric, postulating the criteria on which students would be evaluated. For every criterion, different indicators were developed to score the students. Students were well aware of these criteria. In short, by evaluating the behaviour and achievements of the students during the three negotiation rounds, learning and assessment were integrated.

7. Evaluation of the multilevel simulation in European studies

By way of conclusion, we would argue that the developed multi-level simulation exercise lives up to the criteria of an authentic learning environment with many possibilities regarding collaboration, personal meaning for students and learning materials. Providing learning materials on time, allowed students to become the organizers of their own learning process. It also allowed the instructor to retreat in the background but still fulfilling an important guiding function. Overall, the simulation offered a good balance between systematic instruction and personal exploration. The simulation took into account the differences between students and it stimulated the acquisition of general skills within the subject matter domain. We can conclude that our simulation honours the guiding principles that De Corte postulated for a powerful learning environment.

The simulation stimulated the ability of students to solve problems in group and to acquire negotiation and argumentation skills. The negotiation game gave them the opportunity to train these competencies. They took a first step in learning how to work in a complex

environment. Students didn't passively absorb knowledge. They were put at the centre of the learning experience, directing the negotiations and constructing their own meanings thanks to the combination of their personal experiences. The instructor kept a low profile and played a guiding function allowing initiatives to come from the students themselves and making the whole experience student-centred. The students participated actively and the emphasis was on exploring attitudes and values. Through the experience of the complex multi-level negotiations a critical attitude towards complex decision-making was stimulated. There was also plenty of room for analytical thinking. During the negotiations, the students learned how to analyse the positions of their actors in relation to the issues that were important for the other negotiation partners. They critically analysed their negotiation situations, tried to find the best strategy to represent their country or region and still worked towards an agreement. The emphasis on critical and analytical thinking became very clear during the debriefing session. Here the main aim was to link the personal experiences of the students to the abstract theoretical knowledge and the real world. This feedback was a crucial part of the simulation. In short, All of Snyder's characteristics of active learning were present: the negotiation simulation not only offered student-centred, skill-based and powerful learning environment, it also presents an active learning educational format.

References

- Barr, R. & Tagg, J. (1995). From Teaching to Learning – a New Paradigm for Undergraduate Education. *Change* 27 (6).
- Biggs, J. (2003) *Teaching for Quality Learning at University* [Second edition]. Buckingham, Open University Press.
- Birenbaum, M. (2003). New insights into learning and teaching and their implications for assessment. In M. Segers, F. Dochy & E. Cascallar (Eds.), *Optimizing new modes of assessment: In search for qualities and standards* (pp. 13-37). Boston, Dordrecht and London: Kluwer Academic Publishers.
- Bonwell, C. & Eison, J. (1991). *Active Learning: Creating Excitement in the Classroom*. ASHE-ERIC Higher Education Report 1. Washington DC: George Washington University.
- De Corte, E. (1996). Instructional Psychology: Overview. In E. De Corte & F.E. Weinert (Eds.) *Encyclopedia of Developmental and Instructional Psychology*. London, Pergamon.

- De Corte, E. (2000). Marrying Theory Building and the Improvement of School Practice: a Permanent Challenge for Instructional Psychology. *Learning and Instruction* 10: 249-266.
- Dierick, S., & Dochy, F. (2001). New lines in edumetrics: New forms of assessment lead to new assessment criteria. *Studies in Educational Evaluation*, 27, 307-329.
- Dochy, F. & McDowell, L. (1997). Introduction: Assessment as a Tool for Learning. *Studies in Educational Evaluation* 23 (4): 279-298.
- Gibbs, G. (1999). Using assessment strategically to change the way students learn. In S. Brown & A. Glasner (Eds.), *Assessment matters in higher education: Choosing and using diverse approaches* (pp. 41-53). Buckingham: Open University Press.
- Meyers, C. & Jones, T. (1993). *Promoting Active Learning. Strategies for the Classroom*. San Francisco: Jossey-Bass Publishers.
- Snyder, K. (2003). Ropes, Poles and Space. Active Learning in Business Education. *Active Learning in Higher Education* 4 (2): 159-167.
- Struyven, K., Dochy, F., Janssens, S. & Gielen, S. (2006). On the dynamics of students' approaches to learning: The effects of the teaching/learning environment. *Learning and Instruction* 16: 279-294.
- Tynjälä, P., Välimaa, J. & Sarja, A. (2003). Pedagogical Perspectives on the Relationships between Higher Education and Working Life. *Higher Education* 46: 147-166.
- Tynjälä, P. (1999). Towards Expert Knowledge? A Comparison between a Constructivist and a Traditional Learning Environment in the University. *International Journal of Educational Research* 31: 357-442.
- Van den Bergh, V., Mortelmans, D., Spooren, P., Van Petegem, P., Gijbels, D. & Vanthournout, G. (forthcoming). New modes of assessment within project-based education. An insight with the stakeholders. *Studies in Educational Evaluation*.
- Vermetten, Y., Vermunt, J. & Lodewijks, H. (2002). Powerful Learning Environments? How University Students differ in their response to instructional measures. *Learning and Instruction* 12: 263-284.