

The EU migration law simulation: enriching higher education through a gaming tool for knowledge exchange

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Abstract

The development, testing and application of an educational simulation tool to prepare students for a complex legal practice in which co-operation across European member states is essential has resulted in the EU Migration Law Simulation. The objective of the simulation was to facilitate engagement with strategies for the protection of human rights, the guarding of national borders, and the facilitation of safe migration channels for the purpose of achieving a sustainable future in accordance with EU migration law. This contribution presents the development, testing and functionality of the EU Migration Law Simulation, along with the results of student evaluations from law schools across Europe. The study aims to provide a comprehensive evaluation of existing theories of educational simulation and to test the SCRIPTed Framework on facilitation design. The objective of this educational project was to implement an educational simulation, with the aim of providing European law and migration studies students with opportunities for new forms of knowledge exchange. The simulation requires a modest but well-informed facilitator, which confirms existing knowledge on the facilitation of educational simulations. Furthermore, legal cultures had a significant influence on how students perceived their roles, which in turn shaped the development of these roles during the game design and testing phase. Moreover, we found that legal professionals were just as keen on engaging in the simulation as university students as it took them outside their professional ‘tunnel vision’ on problem solving and generated novel systems insight.

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Introduction

Migration is one of the major global challenges of the century. Teaching migration law asks for new forms of knowledge transfer to accomplish critical and creative thinking, paramount for good lawyering and to support the development of both substantive legal knowledge (understanding what the law entails) and procedural and process insight (understanding how legal processes unfold).¹ The benefits of simulations for higher education in disciplines outside of law school have been proven, showing them to be a positive learning method.² The EU migration law simulation was developed to innovate the teaching of law students and fulfil the need for experiential learning. The EU Migration Law Simulation was developed to provide students with a distinctive experiential learning opportunity in the realm of EU migration law. The simulation fosters the development of competencies in legal communication and international collaboration. This contribution presents the development, testing and functionality of the EU Migration Law Simulation, along with the results of student evaluations from law schools across Europe. The overall research question addressed in this paper is: What learning outcomes were achieved in the EU Migration Law Simulation?

The educational simulation game tool is designed to prepare students for a specific complex legal practice: EU migration law. This legal field is complex as it is multilayered and dynamic. Sources of international, regional and national law influence the applicable rules and regulations. In addition to the variety of legal sources, policies are subject to rapid change due to the political sensitivity of the field. Students of European migration law experience difficulties in establishing connections between various legal regimes and in navigating between treaties, regulations, directives, and national laws transposing these where required. Our findings demonstrate how experiential

¹ E. Scott Fruehwald, *How to Teach Lawyers, Judges and Law Students Critical Thinking: Millions Saw the Apple Fall, but Newton asked Why*, Independently published, 2020, retrieved from <https://catalog.libraries.psu.edu/catalog/29267531>.

² A.J. Faria and others, 'Developments in Business Gaming: A Review of the Past 40 Years' (2008) 40(4), *Simulation & Gaming*, p. 464-487.
<https://doi.org/10.1177/1046878108327585>.

learning activities such as simulation gaming can facilitate mastery of the requisite skills.

Simulation gaming is a proven aid for teachers to help students reach the stage of self-authorising knowledge.³ Moreover, integrating the simulation into an EU migration law course provides students with an interactive learning experience. Law in the books is enriched by law in practice. This contribution describes our journey of developing a simulation that fits the needs of students and that enables us to reach teaching goals within the traditional setting of the classroom. The development is embedded in findings on the effects of simulations for learning processes of students. Thus, by evaluating the EU migration law simulation we add to the body of literature on the effect of simulations in higher education, the role of the facilitator and the potential of simulation gaming for other law courses and law schools.

This paper evolves as follows. After introducing EU Migration Law and Experiential Learning (part 2), we describe our theoretical framework (part 3) and methodology and materials (part 4). Next, we present our results (part 5). We conclude with a discussion of the use of simulations in higher education on European Migration Law (part 6). In part 7 we conclude.

EU Migration Law & Experiential Learning

EU Migration Law is taught at law schools throughout Europe. It requires lecturers to engage in a policy field in which public debate is tense and rules and regulations have become instrumental, at both European and national levels, for political achievements. The subject of EU migration law is included in the curricula of most European law schools as part of (international) master's programs. However, it is a subject difficult to place in a complex legal field of legislative (e.g. Treaties, Regulations and Directives) and non-legislative tools at the EU level, their transposition and implementation at the national level,

³ T. de Lange, K. Geertsema, S. Mantu, 'Theoretical foundations of gaming in teaching the functioning and future of European Migration. Let's play!' in P. Grimes et al (eds) *Teaching Migration and Asylum Law. Theory and Practice* (Routledge 2021) pp. 171 – 176; J. Klabbers, *The Magic Circle. Principles of Gaming and Simulation* (Sense Publishers 2009); L. de Caluwé, G.J. Hofstede and V. Peters, *Why Do Games Work? In Search of the Active Substance* (Kluwer 2008).

and the international human rights frameworks that serve as a base for both.⁴ Simulation gaming has students think about migration as a global phenomenon. Moreover, it offers the opportunity to experiment with developing convincing and possibly original legal arguments to advance the case of their clients, or that might lead to legislative improvements. This requires a comprehensive range of teaching and learning tools. In a literature review on legal education,⁵ we found that law schools are not (yet) equipped to prepare students for practising law and critically thinking on how law connects with broader societal challenges such as global migration.⁶ The so called stage of self-authorizing knowledge is rarely reached.⁷ Teaching methods mainly focus on doctrine through offering lectures in a classroom setting. Although attention for experiential methods is expanding,⁸ this mainly translates into moot courts and legal clinics. These educational tools are effective for practical legal skills. Moot courts specifically focus on the roles of legal professionals in a courtroom and legal clinics are often available for small groups of students only, demanding intensive supervision of lecturers. In the course of developing the simulation presented here, we drew from other disciplines, such as management science. This process culminated in collaboration with the educational developer of the GRIP game format: Gamified Roleplay for Interesting Problems. This format was applied in the development of the EU Migration Law Simulation.

The benefits of simulations in higher education have been proven. It is shown that the learning process of students is impacted in the long run by a simulation experience.⁹ Simulations help students contextualize challenging, real-world

⁴ T. de Lange, K. Geertsema, S. Mantu, 'Theoretical foundations of gaming in teaching the functioning and future of European Migration. Let's play!' in P. Grimes et al (eds) *Teaching Migration and Asylum Law. Theory and Practice* (Routledge 2021) pp. 171 – 176

⁵ T. de Lange, K. Geertsema, S. Mantu, 'Theoretical foundations of gaming in teaching the functioning and future of European Migration. Let's play!' in P. Grimes et al (eds) *Teaching Migration and Asylum Law. Theory and Practice* (Routledge 2021) pp. 171 – 176.

⁶ E. Scott Fruehwald, *How to Teach Lawyers, Judges and Law Students Critical Thinking: Millions Saw the Apple Fall, but Newton asked Why*, Independently published, 2020, retrieved from <https://catalog.libraries.psu.edu/catalog/29267531>; B. Adamson and others, 'Can the Professor Come Out and Play?' (2008) 58, *Journal of Legal Education*, pp. 481-519.

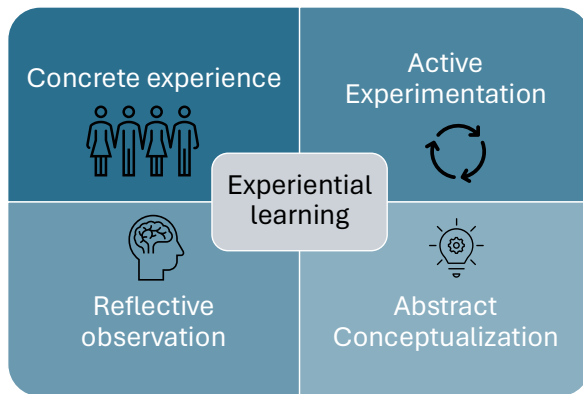
⁷ B. Bloom, 'Learning for Mastery'(1968)1, UCLA - CSEIP - Evaluation Comment.

⁸ T. Casey, 'Reforming the Legal Curriculum: Integration into the Practice' (2014)12(3) *R.E.D.U. (REVISTA DE DOCENCIA UNIVERSITARIA)*, p. 65-91.

⁹ S. Subhash and E. Cudney, 'Gamified learning in higher education: a systematic review of the literature' (2018) 87 *Computers in Human Behavior*, pp. 192-206.

environments and encourage collaboration. Effective legal reasoning requires the ability to see issues from multiple perspectives. A dynamic and enjoyable learning experience allows students and teachers to explore different legal scenarios freely, without the pressure of providing one single 'right' answer.¹⁰ The experiential learning cycle as developed by Kolb (fig.1), is therefore easily achieved.¹¹

Figure 1: Experiential learning ingredients. Source: Authors' adjustment of Kolb, non-linear model.



This study uses a unique and recently developed theoretical framework for facilitating design in simulation and gaming contexts (from now on referred to as SCRIPTed facilitation design), developed through an extensive theoretical

¹⁰ B. Adamson and others, 'Can the Professor Come Out and Play?' (2008) 58, *Journal of Legal Education*, pp. 481-519.

¹¹ D.A. Kolb and R. Fry, 'Toward an applied theory of experiential learning' in C. Cooper (ed.), *Theories of Group Process* (John Wiley 1975).

foundation and refined across multiple academic studies.¹² The framework integrates insights from systems thinking, educational psychology, and intervention methodology. It has been tested and iteratively improved through a series of studies employing both comparing analysis and mixed-method research, offering a novel, evidence-based approach to effective facilitation in complex learning environments.

This effect study presents a successful case and provides academic explanations for the learning outcomes associated with the EU Migration Law Simulation, along with implications for its future development. The subsequent discussion will entail a detailed elaboration on the framework, followed by a presentation of the methodology employed in this mixed methods effect study.

Theoretical Framework: SCRIPTed Facilitation design

The script was developed for facilitators of simulation games in educational and change settings to enhance the learning effects.¹³ The script has been

¹² M. de Wijse-van Heeswijk, 'Facilitation Interventions to Increase Learning Effectiveness in Game Simulations. A Generic Approach of Facilitation Applicable to a Broad Variety of Simulation Games', in M. Angelini, R. Muniz (eds.) *Simulation for Participatory Education: Virtual Exchange and Worldwide Collaboration* (Springer 2023), pp. 53-85; M. de Wijse-van Heeswijk and W.C. Kriz, 'A design science perspective on formative evaluation in simulation games' in M. Angelini and R. Muniz (Ed.), *A generic approach of facilitation applicable to a broad variety of simulation games. Simulation for Participatory Education. Virtual Exchange and Worldwide Collaboration* (Springer, 2023); M. Wijse-van Heeswijk, E. Rouwette & J. van Laere, 'Case Study Report on Facilitation Interventions to Increase Learning Effectiveness in Game Simulations' in M. Angelini, R. Muniz (eds.) *Simulation for Participatory Education: Virtual Exchange and Worldwide Collaboration* (Springer 2023), pp. 87-114; M. Wijse-van Heeswijk and others, 'The mechanisms behind learning in simulation games, a process tracing study into the gameplay' (forthcoming 2025).

¹³ M. de Wijse-van Heeswijk, 'Facilitation Interventions to Increase Learning Effectiveness in Game Simulations. A Generic Approach of Facilitation Applicable to a Broad Variety of Simulation Games', in M. Angelini, R. Muniz (eds.) *Simulation for Participatory Education: Virtual Exchange and Worldwide Collaboration* (Springer 2023), pp. 53-85.

researched by using case studies¹⁴ and quantitative analysis.¹⁵ Essentially the framework consists of a guided sequence for learning-driven facilitation in six different phases, briefly described below:

1. Set the Stage
2. Clarify the Journey
3. Repeat & Reflect
4. Intervene with Intent
5. Process the Experience
6. Transfer the Learning

1. Set the stage

This first phase refers to the participants' motivation and commitment to engage in the game, which is essential for effective learning. To foster engagement, participants need to feel psychologically safe and supported, both by the facilitator and their peers. When they experience a sense of acceptance and confidence, they are more likely to fully engage and derive meaningful learning from the simulation.

2. Clarify the Journey

Managing expectations helps participants engage in the game, to understand its relevance and meaning and prepares them for what behavior is needed to learn from the game. Learning in simulation games is often an intensive, sometimes frustrating experience. For instance, if participants realize feeling a bit

¹⁴ M. de Wijse-van Heeswijk, E. Rouwette, S. Meijerink, 'The learning effects of first, second and third order interventions in a rule based and open simulation game'(forthcoming 2025) *Instructional Science*; Case studies on the transfer of knowledge: M. Wijse-van Heeswijk, E. Rouwette & J. van Laere, 'Case Study Report on Facilitation Interventions to Increase Learning Effectiveness in Game Simulations' in M. Angelini, R. Muniz (eds.) *Simulation for Participatory Education: Virtual Exchange and Worldwide Collaboration* (Springer 2023), pp. 87-114; T. Kikkawa and others, *Transferring Gaming and Simulation Experience to the Real World* (Springer 2025).

¹⁵ T. Alf et al., 'The Role of Reflection in Learning with Simulation Games – A Multi-Method Quasi Experimental Research' (2023)54(6) *Simulation & Gaming*, DOI 10468781231194896.

frustrated at times helps the learning processes they engage in it more effectively.

3. Repeat & Reflect

Weaving multiple reflective moments from start to finish throughout the simulation game helps participants deal with feedback and brings focus to their learning goals as they evolve while playing and reflecting on the game.

4. Intervene with Intent

Rather than instructing participants on how to play, facilitators can support their learning processes by optimising the learning environment in the game. This agency-based way of learning enables participants to enjoy a rich learning environment in which they take on their own learning journeys and own their learning processes. Such agency supports knowledge transfer.

5. Process the Experience

Structured questions that connect to participant's experience and that still allow room for their own interpretation enhance the learning process by bringing focus and more even participation in the debriefing process.

6. Transfer the Learning → (Impact beyond the game)

Transfer of learning should be enhanced from the start,¹⁶ meaning all the steps in the script so far contribute to the end result and the translation of the goals of participants into the game and then backwards again to their reality. Possibly further supported by evaluation methods such as surveys, questionnaires and methods to enhance transfer, such as writing a letter to a future participant on how the simulation game should be played, which brings to the surface the assumptions behind the learning and makes more explicit what the effective behavior actually consists of. It generates a final learning loop of reflection.

¹⁶ M. de Wijse-van Heeswijk and others, 'Debriefing as a leverage point for the transfer of simulation game learning outcomes to reality; Building blocks before and during debriefing that enhance learning transfer' in T. Kikkawa and others, *Transferring Gaming and Simulation Experience to the Real World* (Springer 2025).

Thus, the research question addressed in this paper is, more specifically: what learning outcomes were achieved by applying the SCRIPTed facilitation design in the Migration Game? In order to address this question, a mixed methods approach was employed, encompassing both survey analysis and content analysis of transcription records. This comprehensive methodology is elaborated upon in the next section.

Methods and materials

This study is a case study based on the EU Migration Law simulation as developed by the Centre of Migration Law, Radboud University in collaboration with Gripgame. To measure the learning outcomes mixed methods were used. We conducted a survey to research how students experienced the learning conditions. In addition, we applied content analysis using Atlas ti software to find out how the SCRIPTed facilitation design was applied and what learning outcomes occurred. Before we explain the methodology further and how data gathering took place, we provide a case description.

Case description

How does it work?

The EU Migration Law Simulation exists of three scenarios that can be played together, or as a stand-alone scenario. These custom scenarios connect to the curriculum and make the achievement of learning goals possible, which is the goal **of** the game. The simulation works on the base of a pressure cooker in which students must play a given role and come up with a cooperative solution for the given problem in a fixed period, which is the goal **within** the game. The students are handed a written role description; additional information comes through a video screen, which also keeps track of time.

In all three scenarios a Pakistani national is followed in her journey into the European Union. The narrative is composed in such a manner that it may be possible to apply a variety of legal solutions in order to facilitate her residence in a member state of the European Union. It is important to note that legal categories such as asylum, labour, study and family can all apply to the same individual. All three scenarios cover the learning goal of understanding EU migration law (Treaty and Directives and case law of the Court of Justice of the European Union), with emphasis on different directives in each scenario,

see table 1. Although the legal instruments in scenarios 1 and 2 overlap, the emphasis in scenario 1 is more on family reunification where scenario 2 sees more to labour migration possibilities. The additional learning goal of developing soft skills is achieved as students must communicate and negotiate in order to come to a legal solution to the case.

Table 1: Relevant legislation to engage with per scenario in the EU Migration Law Simulation

| | | |
|--|---|---|
| Scenario 1 (6 roles): <i>Noora and Ray</i> | Scenario 2 (5 roles): <i>Noora wishes to stay</i> | Scenario 3 (5 roles): <i>Ray has a child</i> |
| Article 79 TFEU | Article 20, Article 45 and Article 78-79 TFEU | Article 20, Article 45 and Article 78-79 TFEU |
| Family Reunification Directive | Family Reunification Directive | Family Reunification Directive |
| Student and Researchers Directive | Student and Researchers Directive | Return Directive |
| Single Permit Directive | Single Permit Directive | EU citizen directive |
| Blue Card Directive | Blue Card Directive | |
| | Asylum Qualification Directive | |
| | EU citizen directive | |

Each scenario is played in the order as shown in table 2.

Table 2: Order of actions in the EU Migration Law Simulation.

| | Action | Time in minutes |
|----|--------------|-----------------|
| 1. | Introduction | 5 |
| 2. | Reading time | 10 |
| 3. | Simulation | 30 |
| 4. | Wrap-up | 30-50 |

The integration of the simulation within the extant teaching format is facilitated by this periodisation, for instance within working groups or 90-minute classes. The number of students can vary from 5 to 100 students, as long as the students can be divided in groups sitting at a table with enough space for the paperwork and with a view of the central video screen, which is connected to Wi-Fi (see figure 2). The lecturer logs on to a website for the instruction video and to start the scenario. During the scenario a clock is ticking on the screen and

instructions and multimedia events influence the scenario. The lecturer has an observing role as facilitator of the game.

Each scenario consists of five or six roles: Noora (the migrant), Ray (the partner of Noora, only in scenario 1 and 3), a hospital, an employer of Noora and Ray, her immigration lawyer, the immigration officer and a mediator. Each role has a secret goal to fulfil, which adds to the game element of the simulation. The role of the mediator is of importance to get the discussion within the group going and to come to a compromise at the end of the playing time. The occurrence of multimedia events during the simulation, displayed on the central screen, has the potential to stimulate discussion within a group and enhance the learning experience. On paper, four or five information request 'cards' are offered to each team, with descriptions of a specific topic. However, only two requests of information can be used, which also adds to the gaming element of the simulation.

When cycles of the simulation have finished, the wrap-up in the form of a plenary debriefing starts following an enquiry-based format. During the wrap-up students can share how they experienced playing their role and if they were able to reach their secret goal. The practical aspects of the case are discussed in relation to both legal practice and theoretical knowledge. At this juncture, the lecturer, in a collaborative effort with the participants, aligns the course's learning objectives with the curriculum, leveraging the participants' experiential knowledge.

Development of EU migration law simulation

The development of the simulation is embedded in a cursory literature review of the effect of educational simulations for higher education and literature review on legal education. From this review¹⁷ we concluded that 'serious gaming' was a teaching method that caters to the diverse backgrounds and needs of our law students, the intricacy of teaching objectives, and our aspiration to equip future generations of experts in European migration law with the tools to cultivate a shared understanding of EU migration law. Moreover, experience from other disciplines, mainly management science,

¹⁷ T. de Lange, K. Geertsema, S. Mantu, 'Theoretical foundations of gaming in teaching the functioning and future of European Migration. Let's play!' in P. Grimes et al (eds) *Teaching Migration and Asylum Law. Theory and Practice* (Routledge 2021), pp. 171 – 176.

were considered when developing the simulation, resulting in a co-operation with the educational developer of the format 'grip game' (GRIP: Gamified Roleplay for Interesting Problems). This format is rooted in experience-based learning and serious simulation games. It had been used at management schools, but never for law schools. The three scenarios were developed according to this format, using the reiteration cycle to improve the text and gaming elements in order to meet the learning goals.

In the testing phase, a number of challenges had to be overcome. Firstly, the challenge of intercultural communication was evident. It was evident during the test phase that the cultural background of the participants had a significant impact on their performance in the role of judge. This finding indicated that cultural influences could have a substantial influence on the way in which roles are performed in a simulation, and consequently on the experience of participants in the simulation. The decision was taken to relocate the simulation to an area external to the courtroom, with the objective of avoiding the situation of conflict that is characteristic of courtroom cases.

Secondly the available time for the playing of the simulation posed a challenge. Earlier edu-formats based on Gripgame are pressured in twenty minutes, which was too short for the developed scenarios. Law students must apply legal instruments that are normally accessible online. Information sheets on the relevant legal norms were added later to the simulation as a replacement of the (online) legal textbooks, allowing students a quick overview of the EU directives that they could apply to the case. This did however, result in extra reading time. The scenario was therefore extended to 30 minutes playing time, instead of the proposed 20 minutes. After testing the scenarios on co-workers of the lecturers developing the simulation, it was decided to add a pause button to the simulation. The lecturer/facilitator has been given the option to stop the simulation in order to answer pressing questions.

Thirdly, it was a challenge to foster European co-operation and harmonization. Although the existing edu-format is known for the limited role of the facilitator, our law students asked for more guidance than was foreseen. A good introduction appeared to be crucial for quality playing time. Besides that, the EU harmonized migration rules and regulations are minimum norms and may differ significantly at a national level. Differences among EU member states in practice thus do not allow for a 'one-size-fits-all' wrap-up. The wrap-up by the facilitator/lecturer is therefore pivotal in establishing a link between the

simulation experience and the acquisition of knowledge, while also highlighting the variances in the application of the same standards throughout the EU. It is imperative to acknowledge the pivotal role of the facilitator in optimising the learning experience.

Finally, although we envisaged an online simulation in order to be able to play the simulation with European universities at the same time and to facilitate discussion among European students, in practice the off-line simulation showed the best results. We found that off-line simulation was most successful for knowledge exchange and systems insight.

Setting of the simulation game in the curriculum

Each year between 15 and 25 students are participating in the courses Dutch Migration Law and 35 students participate in the course European Migration Law, both at Radboud University (Nijmegen). In both these courses the simulation became integral part of the curriculum. Since its inception, the simulation has been incorporated into the curricula of two other Dutch universities.

Methodology and Data collection

A survey was conducted with the objective of providing an empirical basis for the analysis of the impact of the simulation game on students' perceptions of learning. It was designed by the Centre for Management Simulation (ZMS) at the Cooperative State University in Stuttgart.¹⁸ The survey consists of a questionnaire for the evaluation of teaching on learning including the specific demands of simulation games. It consists of seven latent constructs that are formed of 25 items evaluated using six-point scales:

Satisfaction and Learning: Evaluates the overall satisfaction with the simulation game-based teaching and contains a student-self-assessment on learning. It consists of three items related to learning and three items related to overall satisfaction.

¹⁸ F. Trautwein & T. Alf, 'Theory-Based Development of an Inventory for the Evaluation of Simulation Game Lectures' in C. Harteveld and others *Simulation and Gaming for Social Impact* (Springer 2023), https://doi.org/10.1007/978-3-031-37171-4_1.

Facilitation: Addresses teaching specific aspects of facilitation such as structure of the seminar or communication between instructors and students.

Simulation Game Reality/Relevance: Students evaluate to what respect the game represents corresponding real-world issues.

Simulation Game Comprehension: Students evaluate how well they understand how the game proceeds and the results provided.

Student Engagement: Students assess how engaged they were during gameplay and debriefing.

Team Atmosphere: Students evaluate the atmosphere within their group.

Team Task: Students assess how tasks were distributed within their groups and whether they knew what their function or job was.

To gather data on the student experience and learning achievements, all students are asked to fill out the survey after playing the simulation. The data can be compared to other simulation games that were evaluated using the same questionnaire.¹⁹

Since the development of the three scenarios, we requested all participants to participate in the evaluation by filling out a survey. In total, from December 2022 till November 2024, 163 students participated in the simulation evaluation survey we quantitatively analyzed, of which 111 completed the questionnaire. These students are divided over four universities:

Table 3: Played sessions and completed surveys

| Date | University | Scenario played | Participants | Completed survey |
|-----------------|--------------------------------|-----------------|--------------|------------------|
| 8 December 2022 | Radboud University (NL) | 2 | 8 | 8 |
| 21 March 2023 | Charles University Prague (CZ) | 1 | 12 | 11 |
| 20 October 2023 | Radboud University | 1 | 18 | 10 |

¹⁹ F. Trautwein & T. Alf, ‘Simulation Games on Sustainability – A Comparative Study’ in C. Harteveld and others *Simulation and Gaming for Social Impact* (Springer 2023), p. 121-133, https://doi.org/10.1007/978-3-031-37171-4_8.

| | | | | |
|------------------|----------------------|---|------------|------------|
| 23 November 2023 | Radboud University | 2 | 15 | 14 |
| 1 December 2023 | Radboud University | 2 | 5 | 5 |
| 8 March 2024 | VU University (NL) | 2 | 25 | 18 |
| 15 May 2024 | Gent University (BE) | 1 | 54 | 34 |
| 28 November 2024 | Radboud University | 1 | 26 | 11 |
| TOTAL | | | 163 | 111 |

To analyze the statistical data we used Jamovi, a graphical interface based on R.²⁰

As an additional source for assessing the influence of the simulation game on learning motivation and learning success were the observations of the lecturers during the simulation, a transcript content analysis (In Atlas.ti) of one session of the simulation and the wrap up at the end of the simulation.

Ethical Considerations: Informed Consent

Participants were adequately informed about the research objectives, the nature of data collection, and the data storage protocols during both the invitation phase and the session itself. This ensured compliance with ethical standards for research involving human participants.²¹

A limitation of our research as presented in this paper, is that we have no data evaluating the courses *before* the simulation was introduced to measure the learning impact and the isolated effect of the simulation.

²⁰ The Jamovi project. (2023). Jamovi [Software]. <https://www.jamovi.org>

²¹ Ethical approval for this study was obtained through participant consent procedures in accordance with European regulations. Prior to data collection, participants were informed about the aims of the research, the intended use of recordings for analyzing learning outcomes and facilitation approaches, and the procedures for secure data storage. Consent was primarily documented on film, a method recognized under European law. Participants were assured that all data would be stored securely, treated confidentially, and published only in anonymized form. All standard ethical considerations regarding voluntary participation, confidentiality, and data protection were addressed. As extra we told participants if they wanted to respond not in the group on their consent or not they could approach us during or after the session and would always be taken seriously.

Results

Integration in curriculum

After several testing rounds which resulted in adjustments to scenario and settings, the simulation was integrated in the curriculum of two courses at Radboud University in the Master Human Rights and Migration Law. On this integration, students cheered the introduction to practice and ‘reality’, which apparently text books had not offered. On the open space in the earlier mentioned surveys they wrote:

‘Great way to teach students the practical aspects of migration law, that there are other considerations than legal ones. Thinking on our feet is necessary. Awareness of the dynamic relation between law and policy. Practice in work life. Realities on solving issues quickly and in teams.’²²

‘It was really thought provoking and interesting to be part of such a simulation. It gave me a perspective on reality and how things can be complicated in real.’

One student recognized that the different roles and interests at play has students see different interpretations of the law:

‘Overall, it was fun and informative, I liked how there were different interests represented and so it helped me to think about how different outcomes are preferable for different parties.’

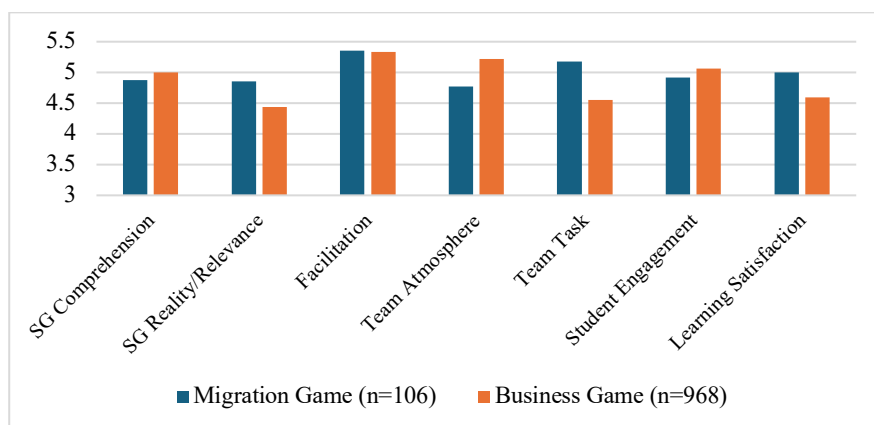
Student surveys results

The overall survey results are presented in figure 3. In addition, we present already published data on business games to contrast the results.²³ This data was collected with the same survey as for the EU Migration Simulation.

²² The term ‘thinking on your feet’ refers to the skill to respond quickly and effectively to unexpected situations, real-time problem solving and quick decision taking.

²³ F. Trautwein & T. Alf, ‘Simulation Games on Sustainability – A Comparative Study.’ in C. Harteveld and others *Simulation and Gaming for Social Impact* (Springer 2023), p. 121-133, https://doi.org/10.1007/978-3-031-37171-4_8.

Figure 2: Comparison of evaluation, migration game and business games



Observation and video analysis

We first tested the prototype of the game on a mixed group of students and lecturers providing this course. The game at that time consisted of the following components.

Narrative of the first prototype test:

There was a running scenario film that also included the introduction sheets on the game roles. There was preparation time and next, players would step into their roles. Subsequently at prefixed times an interruption with an event film would take place, adding new information after which participants were supposed to process this feedback and incorporate it into their strategies and negotiations. However, the film event interruptions were not functional to the participants as the introduction failed to meet their expectations and prepare them well enough for their roles, no additional interventions of the facilitator supported their learning because it just all happened too fast. Participants lost their feelings of meaning, agency and control and felt overwhelmed by the sudden interruptions they felt they could not catch up on. Some participants claimed it was a waste of their time in the debriefing.

Evaluation

The basic setup of the game in terms of scenario, integrated learning content, roles and events were estimated as sound and designed according to the principles of effective game design such as short cycled concrete relevant

feedback, not too many roles, hidden profiling to generate game flow and an evolving scenario. Yet, the way the simulation game was presented without a separate introduction, with limited expectancy management and the interrupted game flow, it was generating such a cognitive load that even the lecturers present at the test could not follow up on what was needed to perform well in the game and achieve its goals.

Redesign by adding the **SCRIPTed Facilitation** design:

To resolve all the issues from the first test the script was applied; An introduction with a facilitator connecting to the audience and explaining the relevance and meaning of the game was designed. This resulted in the following findings following the SCRIPT steps:

1. Set the Stage

In the introduction sheets the expectations regarding roles, rules and resources were explained as well as goals of the game and goals in the game by a physically present facilitator

2. Clarify the Journey

The game now had a pause button to stop the game whenever needed for an intervention by the facilitator and the interventions of the facilitator were directly aligned with the learning needs of the participants.

3. Repeat & Reflect

and

4. Intervene with intent taken together and Process the Experience

At regular intervals, the facilitator intervened to summarize the process, have participants respond, and deepen their understanding so they could make more meaningful decisions and better absorb the feedback obtained through the events.

5. Process the Learning

The participants were asked how they experienced the process and if they felt it was adding to their learning. All participants responded positive, they replied it helped apply and process their knowledge on application of migration law

and that it contributed to studying for their exams and understanding the relevance and workings of the processes.

Negative prototype and subsequent positive prototype with facilitation design

Table 4 presents the summative overview of the comparison of the learning effects and facilitation design factors for the negative prototype session and the positive second session of the prototype with added facilitation design script.

Table 4: Overview of learning effects engaging SCRIPTed facilitation design

| SCRIPTed Facilitation design | Positive Session | Negative Session | Key Differences & Notes |
|-------------------------------------|---|---|---|
| Set the Stage | Medium – Adequate setup, players understood the context. | Medium – Basic setup; lacked preparation such as clear goal-setting. | Both sessions did not fully maximize the setup phase; role framing could be improved. |
| Clarify the Journey | Medium – General awareness of flow and structure. | Medium – Steps remained unclear due to a rushed introduction. | Clearer explanation of roles and flow needed from the start. |
| Repeat & Reflect | Mixed – Some reflection but lacked structure and third-order learning. | Negative – No real learning occurred due to poor structure and lack of facilitation design. | Structured reflections in-between were missing; negative session missed learning opportunities. |
| Intervene with Intent | Positive – 25 content + 14 process interventions, though lacked deeper role-level insights. | Negative – 11 content + 2 process interventions, minimal process focus. | Positive had more and varied interventions; both lacked third-order (role-reflective) focus. |

| | | | |
|-------------------------------|--|--|---|
| Process the Experience | Positive – Active facilitation and integration of experiences. | Negative – Passive facilitation, limited feedback loops. | The positive session engaged players; the negative missed learning opportunities. |
| Transfer the Learning | Positive – Connections were made to real legal contexts (migration law). | Negative – No real learning occurred to enable transfer. | Positive session enabled applied legal learning; negative lacked foundation for transfer. |

The second test session of the EU Migration Law Simulation Game demonstrated notable advancements in its design and implementation. The simulation game aimed to familiarize students with the functioning of migration law by immersing them in realistic, teacher-generated scenarios, which were brought to life by a professional game design company. The addition of a facilitation design for this session proved to be a critical enhancement.

Discussion

The overall outcome of the research shows that students rate the simulation game as a positive learning experience. As key success factor we identify the SCRIPTed Facilitation design. A more in-depth analysis brings forward the following five success factors.

Firstly, students rate the EU migration law simulation very comprehensible. It is a little less comprehensible than a variety of established business games were rated (see figure 3). Given the fact that the EU Migration Law Simulation game is a rather new development it is still a high level of comprehension. The questions whether a simulation game is realistic or not is an important predictor for learning.²⁴ The simulation game is rated to be more realistic than a variation of business games. In this respect the game fulfils an important characteristic

²⁴ S. Zeiner-Fink, A. Bullinger & S. Geithner, ‘Learning Effects and Acceptance in Business Games: A Systematic Literature Review’ in C. Harteveld and others *Simulation and Gaming for Social Impact* (Springer 2023), p. 36–51, https://doi.org/10.1007/978-3-031-37171-4_3.

to contribute to learning. From the SCRIPTed Facilitation design follows that the game design and facilitation interventions during gameplay and reflection are already rendering considerable learning results, as the debriefing setup without a structured framework for post-game reflection rendered a satisfying learning outcome: 11 on first- (content/procedural) and 11 second order (process) level, suggesting that participants were able to derive meaningful insights. In the future we aim to achieve more third order learning outcomes in terms of critical role reflections with third order reflective questions during the gameplay and added debriefing techniques that urge participants to critically reflect on their roles from a third order perspective.

Secondly and importantly, from the survey and the observation we draw that the instructions given by the facilitator and the role description are sufficient to play the simulation. According to the students, the simulation game was very well facilitated. Students rated it with the highest mean that is reported in this evaluation. This finding on the importance of the facilitator echoes existing literature on facilitation.²⁵ From the SCRIPTed Facilitation design we take that the facilitation approach was modest, as intended, because the game design should trigger the learning process. We find that a facilitator should only have a supportive role. In our observation the facilitator intervened nine times, primarily addressing content (25 interventions) and process (14 times),²⁶ and did so without relying on pre-scripted or structured questions, adaptive to participants needs.

Thirdly, we highlight the team variables, as here we see a differentiated picture. The team atmosphere in teams playing the migration game is obviously lower than the team atmosphere of teams playing business games. This is an effect we have seen in prior studies comparing business games to games on sustainability.²⁷ A possible explanation might be that conflict-laden topics (as

²⁵ M. de Wijse-van Heeswijk, E. Rouwette, S. Meijerink, 'The learning effects of first, second and third order interventions in a rule based and open simulation game' (2025) *Instructional Science*; J. van Laere, J. Lindblom, ., & M. de Wijse-van Heeswijk, 'Complexifying Facilitation by Immersing in Lived Experiences of on-the-fly Facilitation' (2021) *Simulation & Gaming*, <https://doi.org/10.1177/10468781211006751>; M. de Wijse-van Heeswijk, 'Ethics and the Simulation Facilitator: Taking your Professional Role Seriously' (2021) 52(3) *Simulation & Gaming*, p. 312-332. <https://doi.org/10.1177/10468781211015707>.

²⁶ Interventions can be a combined process and content intervention.

²⁷ F. Trautwein & T. Alf, 'Simulation Games on Sustainability – A Comparative Study' in C. Harteveld and others *Simulation and Gaming for Social Impact* (Springer 2023), https://doi.org/10.1007/978-3-031-37171-4_8, p. 130.

migration and sustainability are) are reflected in the teams' experience dealing with the conflicting topics. Law students in higher education are used to conflict settings to practise their legal communication skills, with the moot courts as best example.²⁸ Most law schools prepare their students for the conflict setting in which a court must give the final verdict. The set-up of the EU migration law simulation though is different, on purpose it is not in a conflict setting, to help students to realize a team effort is needed to come to an outcome when interests are conflicting, and different legal solutions are possible. For law students this might be a setting that is out of their comfort zone in learning about law.

Fourthly, students are very satisfied with the learning experience and expect it to have a positive influence on their education. We do note that, after the first observation and adjustments made, the students playing the migration game are very confident about the roles which are given through a role description. Although students rate their own engagement marginally lower than students rate their engagement in business games, their individual feedback is very positive. Indeed, looking at the overall assessment on learning and satisfaction we see that the EU migration Law simulation game is rated very positively. Thus, as the observation showed, participants showed eagerness to start and asked relevant questions after the introduction. Expectancy guidance on the goal of the game, the learning process in the game and the goals in the game supported the engagement of participants from the start. The learning process of the simulation allows the students to follow their own learning paths and only when learning support was needed did the facilitator intervene. The gameplay process of 1,5 hrs is relatively short and might be interrupted too much by having plenary central reflections on the gameplay with structured questions. During interventions of the facilitator participants actively engaged in discussions, which also contributed to the learning process.

Fifthly and finally, in comparison to business games, a simulation on law is characterized by the difference in learning goals: in the EU migration law simulation, students must apply legal instruments in an individual case. Most likely, in a law simulation game more emphasis is put on knowledge of legal sources, where the learning goal is at the same time to develop communication

²⁸ See on developments in this field of law education: E. van Dongen, 'Pleading in the Virtual Courtroom. Exploring Experiential Learning in Law through Virtual-Reality-Based Exercises and Student Feedback' (2024)5, no. 1 *European Journal of Legal Education*, p. 157–190.

and teamwork skills to discuss, argue and plea the application of different legal sources. Moreover, to prepare law students for their professional lives, both (cultural) soft skills that focus on mediation and hard skills that require creative thinking on a global issue like migration, are of great importance.²⁹ The finding in the survey that students find the EU migration law simulation realistic, is confirming that this learning goal is reached.

Conclusion

The development, testing and application of an educational simulation tool to prepare students for a complex legal practice in which co-operation across European member states is essential has resulted in the EU Migration Law Simulation. The objective of the simulation was to facilitate engagement with strategies for the protection of human rights, the guarding of national borders, and the facilitation of safe migration channels for the purpose of achieving a sustainable future in accordance with EU migration law. This contribution presented the development, testing and functionality of the EU Migration Law Simulation, along with the results of student evaluations from law schools across Europe.

Via the immersion of students in the scenario and practising law from their roles in the game, the transfer of both content and procedural knowledge was enhanced. The EU migration simulation enriches existing courses on EU migration law: the analysis of student experiences shows an increased interest in the topic and learning motivation. The structure of the instruction and coordination of the simulation means that the tutor, or facilitator, is able to perform the simulation with minimal guidance. Thus, the scalability of the EU Migration Law Simulation offers potential for higher education on migration throughout Europe. Advancing the implementation of this educational tool within European law schools will validate the value in legal education on EU Migration Law. Thus, our evaluation of the effects of the added SCRIPTed Facilitation design was positive and turned a seemingly not effective simulation game in an effective one. Moreover, further quantitative as well as qualitative analysis of the simulation will enrich the academic findings on experiential learning.

²⁹ J. Faulconbridge and D. Muzio, 'Legal education, globalisation, and cultures of professional practice' (2009) 22(4) *Georgetown Journal of Legal Ethics*, 1335-1359.

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