

The European Parliament Virtual Role-Play Game: Results of a Player Study

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Abstract. The paper reports on an evaluation study of the European Parliament Virtual Role-Playing Game, a hybrid multiplayer parliamentary simulation aimed at increasing young people’s political interest and understanding of the EU legislative process. The study is based on data from pre- and post-questionnaires collected during a large-scale run of the game (303 players) at a European Youth Event. Results indicate that participants found the game to be engaging and viewed it as a helpful tool for increasing players’ political interest and knowledge.

Keywords: Parliamentary simulation · Civic education · Player experience

1 Introduction

Governmental institutions have a responsibility not only to govern, but also to make governance understandable to citizens and encourage civic engagement [6]. To this end, political institutions such as parliaments offer a variety of activities for the public, including site visits, youth events, and educational videos. Increasingly, physical and digital games are becoming part of this repertoire; indeed, most national parliaments in Europe use some form of games as part of their educational outreach [10].

The use of game-based learning is not exclusive to national parliaments. The European Parliament is a case in point, offering both a physical and a virtual game to teach players about the legislative process in the EU.

This article focuses on the latter: the European Parliament Virtual Role-Play Game (EP vRPG), a parliamentary simulation in which players take on the roles of members of the European Parliament. The EP vRPG is a hybrid multiplayer game that requires an internet connection to run (the game is controlled by an online backend) but is designed to be played with the players sharing the same physical location. The game was conceived as an alternative to the existing EP RPG, which is only playable on-site in the EP’s Europa Experience visitor centers and which became unavailable during the COVID-19 pandemic. The goal was to create a game that could reach a wider audience, without requiring travel, and would not require much training or resources to set up and play.

The first version of the EP vRPG was developed by ICF NEXT and launched in 2023. Currently, the game is being developed further by Serious Games Interactive (SGI) and the Europa Experience unit of the EP. The next version of

the game will be launched in 2026. The goal of this study is to collect feedback from a larger player group in order to evaluate the EP vRPG’s ability to meet its objectives, thereby informing the design of the game’s next iteration. The main research questions are:

- RQ1: What impact does the EP vRPG have on players’ political interest?
- RQ2: How engaging is the EP vRPG for players?
- RQ3: What is the educational potential of the EP vRPG?

2 Background

2.1 Parliamentary simulation games

Games and simulations have a long history of use in political and civic education. A predecessor of modern parliamentary simulations, the mock parliament, was played in many schools throughout the Commonwealth of Nations in the late 19th century, where it has been credited with raising girls’ interest in politics, foreshadowing the suffrage movement [11]. By the mid-20th century, a variety of tabletop games were available to teachers interested in a game-based approach to political education [2]. This interest in games stems from their ability both to improve learning outcomes and promote attitudinal change [9], which is crucial to tackle the long-standing issue of “the lack of political engagement by young people” [8]. It is not surprising, then, that the use of games for political education has not been limited to formal learning settings: for example, governmental institutions such as parliaments often use digital and non-digital games as part of their educational outreach initiatives [10].

A notable subset of games used in civic education are parliamentary simulation games. In them, players “reenact political processes such as parliamentary sessions,” typically in teams representing different political parties, and engage in discussion, negotiation, compromise-seeking, and voting in order to navigate fictional scenarios such as deliberating on a controversial bill [12]. These games can take various forms: from on-site activities for parliament visitors, to digital and tabletop multiplayer games, to browser-based single-player ones, to dedicated international events such as the European Youth Parliament [10,7]. Despite their wide use in education, academic research on parliamentary simulation games is limited. While existing studies suggest that such games are “valuable tools to increase political knowledge and foster democratic attitudes” [12], there is a shortage of empirical research into their effectiveness.

2.2 European Parliament Virtual Role-Play Game

The European Parliament Virtual Role-Play Game (EP vRPG) is a digital parliamentary simulation, in which 16–40 players take on the role of Members of the European Parliament (MEPs). The goal of the game is to teach young players (16–20 years old) about the legislative process and promote democracy. The game is available in 24 EU languages and can be played at <https://>

`//virtual-role-play-game.digital-journey.euoparl.europa.eu/`. A single playthrough takes 60–90 minutes [5].

Although it is a digitally mediated game that requires a stable Internet connection, the EP vRPG is designed to be played with all players assembled in a larger space with a game facilitator present. This makes a school classroom an ideal setting for play. The facilitator presents game information on a large screen, and players join and interact with the game via their smartphones.

Structurally, the EP vRPG is similar to a seminar game: a type of umpire-led, discussion-centered game in which groups of players, representing different entities, must navigate a scenario consisting of a set of pre-scripted events [1]. However, unlike traditional seminar games and most parliamentary simulations, it relies on a hybrid design, combining the use of digital technology (video-recorded non-player characters, information delivered on personal devices) with face-to-face player interaction. The scenario in the EP vRPG proceeds as follows [5]:

1. Pre-recorded video introduction (shown on the facilitator’s screen): the President of the EP welcomes players as MEPs and explains the need for a new EU law that they are about to work on.
2. Players are randomly divided into four groups symbolizing different kinds of political parties: Tradition, Solidarity, Ecology, and Liberty. Players rearrange their seating so that each group sits together, then use their personal devices to familiarize themselves with their group’s manifesto, key stakeholders, and proposed amendments for the new law.
3. Players are regrouped into two inter-group committees. Each committee receives four proposed amendments (out of a total eight), which they must discuss, find a compromise between the political groups’ positions, and choose two amendments to go to the plenary session.
4. Players join back with their political groups to discuss the amendments chosen by the committees and decide how to vote during the plenary.
5. All players join the plenary session. A spokesperson from each political group presents their group’s views on the new legislation and its amendments. Players then vote first on each individual amendment and then on the legislative proposal as a whole.
6. Breaking news: an unexpected event in the game story changes the needs and public perceptions around the bill, leading the Council of the European Union to propose its own amendments to the law. Players must now rethink their stances and seek compromise again.
7. The plenary continues, and players must decide whether to support the newly proposed amendments, go back to the original proposal, or find a compromise. Voting takes place, at the end of which the law has either been passed or rejected.
8. After the voting results have been announced, various stakeholders (pre-recorded non-player characters) present their views, whether critical or favorable, on the outcome.
9. If players failed to pass the law, they must hold a press conference to respond to the public’s concerns.

3 Methodology

3.1 Context

This study is based on data collected during the European Youth Event (EYE), organized by the European Parliament on June 13–14, 2025 in Strasbourg (<https://european-youth-event.europarl.europa.eu/en>). The broader event aimed to foster political interest among young people (ages 16–30) and bring them into conversation with Members of the European Parliament, politics experts, activists, and content creators. It attracted around 9,000 participants and featured hundreds of activities to choose from, such as tours, performances, interactive workshops, and games, including an opportunity to play the EP vRPG. In total, the EP vRPG was played by 303 players (all EYE participants) across eight sessions.

3.2 Research design and data

This study follows a mixed-methods pre-post intervention evaluation design and is based on a convenience sample: the 303 participants who chose to play the EP vRPG were asked to complete a pre- and post-intervention questionnaire about their experience. To ensure more consistent results, both questionnaires were printed and handed out to the participants before the beginning of the game session as a single document. The original questionnaire had been created by the EP Europa Experience unit to measure the impact of the EP RPG during various play sessions. For the purposes of this study, the questionnaire was adapted for a pre-post intervention design.

The questionnaire contained the following items (the pre-questionnaire only had the first four, while the post-intervention one included all the items):

1. I'm interested in following political news on a regular basis.
2. I am interested in actively influencing decisions, voicing my concerns, and engaging with society.
3. I am interested in EU topics and affairs.
4. I have a good understanding of how the European Parliament works.
5. Time spent interacting with other players was valuable.
6. Discussions with other players were engaging.
7. I had enough time for all the game activities.
8. The game rewarded my ability to make compromises.
9. I enjoyed the game.
10. I enjoyed this as a learning experience.
11. I would recommend this game to friends.
12. I would like to play this game again with another topic.
13. Playing this game made me want to learn more about the European Parliament.
14. If you have any other comments, please add them here.

All of the questions except the last one were presented as 1-5 scale, and the extreme values for each item were explained depending on the item’s wording (e.g., “1 = not interested at all” and “5 = very interested”). The final question was open-ended and intended for freeform feedback.

Following the intervention, questionnaire responses were digitized and subjected to initial data cleaning (e.g., removal of incomplete entries). To assess internal consistency, Cronbach’s Alpha was calculated for item clusters corresponding to each of the research questions. Descriptive statistics (means, standard deviations) were computed for all items, and paired t-tests were conducted to evaluate statistically significant pre-post differences. Open-ended responses were analyzed using inductive content analysis [4].

4 Results and Discussion

Out of the 303 players, the pre-intervention questionnaire yielded 267 responses, while the post-questionnaire received 242. The results of the post-questionnaire are presented in Table 1. A comparison between the pre- and post-intervention responses is shown in Table 2. (Differences for each participant were calculated as an additional field in the dataset, and means and standard deviations are based on the resulting numbers.) All the identified differences are statistically significant.

Table 1. Post-intervention questionnaire results

No.	Questionnaire statement	Mean	SD
Q01	I’m interested in following political news on a regular basis	4.40	0.78
Q02	I am interested in actively influencing decisions, voicing my concerns, and engaging with society	4.42	0.74
Q03	I am interested in EU topics and affairs	4.44	0.69
Q04	I have a good understanding of how the European Parliament works	4.19	0.78
Q05	Time spent interacting with other players was valuable	4.27	0.87
Q06	Discussions with other players were engaging	4.12	0.94
Q07	I had enough time for all the game activities	3.49	1.17
Q08	The game rewarded my ability to make compromises	3.87	0.91
Q09	I enjoyed the game	4.50	0.74
Q10	I enjoyed this as a learning experience	4.45	0.78
Q11	I would recommend this game to friends	4.47	0.80
Q12	I would like to play this game again with another topic	4.62	0.71
Q13	Playing this game made me want to learn more about the European Parliament	4.38	0.82

4.1 Political interest

Questions Q01, Q02, and Q03 correspond to RQ1: “What impact does the EP vRPG have on players’ political interest?” Cronbach’s Alpha for this clus-

Table 2. Difference between pre- and post-intervention items

No.	Mean (pre)	SD (pre)	Mean (post)	SD (post)	Mean (diff.)	SD (diff.)	p (t-test)
Q01	4.28	0.83	4.40	0.78	0.11	0.57	0.0018
Q02	4.31	0.76	4.42	0.74	0.13	0.56	0.0002
Q03	4.30	0.80	4.44	0.69	0.13	0.55	0.0001
Q04	3.48	0.89	4.19	0.78	0.68	0.78	0.0000

ter of questions is 0.52 (poor) in the pre-questionnaire and 0.65 for the post-questionnaire (questionable). Reliability could have been improved by including additional questions related to participants’ civic activity and political interest; however, it was a conscious decision on the study facilitators’ part to keep the questionnaire as short as possible to reduce the participants’ cognitive load.

Although no dramatic increase in political interest was expected after a one-hour gameplay session, the results demonstrate some positive change. It is important to note that participants’ interest in politics was already high beforehand (since they chose to participate in the event in the first place), but still showed a modest increase, at least in the short term, after playing the game. A task for a future study is to determine whether and how playing the game would affect the perceptions of 16–20-year-olds with varying levels of political interest.

4.2 Game experience

Questions Q05, Q06, Q07, Q08, Q09, Q11, and Q12 relate to RQ2: “How engaging is the EP vRPG for players?” Cronbach’s Alpha for this cluster of questions is excellent (0.82).

The results suggest that players found the game to be enjoyable ($M=4.5$) and would recommend it to friends ($M=4.47$). 34 of the respondents additionally stated in the freeform comment (Q14) that they had a positive experience with the game; two respondents specified that they would recommend the game for school use. Notably, players expressed a strong interest in playing the game again with a different scenario ($M=4.62$). This points to the EP vRPG’s high replayability and the potential to be expanded with new scenarios that highlight different issues and debates important to the EU. In freeform comments, three participants stated they would in fact like to replay the game with the same scenario, which may imply that the role-playing aspect of the game (the presence of multiple political groups with differing agendas) lends it further replayability.

Players also agreed, if not as strongly, that the time they spent interacting with other players was valuable ($M=4.27$)—one respondent wrote in the freeform comment that they “liked making new friends”—and that the discussions they had were engaging ($M=4.12$). This suggests that social interaction and discussion, which are a key part of the gameplay, are enjoyable to players but could perhaps be handled in an even more engaging way.

Aspects of the game that the respondents did not feel as unequivocally positive about relate to time management and finding compromise. Q07 (“I had enough time for all the game activities”) averaged 3.49 ($SD=1.17$), indicating

mixed feelings among the players. While 52.2% of the players did moderately or strongly agree with the statement, others pointed out that there was not enough time for some in-game activities, particularly discussions. In the free comments, 21 respondents suggested increasing the amount of time allocated to specific parts of the game (mostly for discussions within political groups and in committees). One player pointed out that the extra time was necessary “to develop our ideas and negotiate and compromise with the other players.” Something that the game facilitator manual could suggest more explicitly is that facilitators can increase the amount of time spent on different phases of the game depending on the circumstances. (In our case, however, this was not feasible due to tight scheduling of the event, with other activities preceding and following the game-play session.)

Responses to Q08 (“The game rewarded my ability to make compromises”) were somewhat more positive ($M=3.87$, $SD=0.91$). The freeform comments contain some indications as to why players may have found compromise-seeking to be challenging. Two players opined that, at a maximum of 40 players total (20 per committee and 10 per political group), the number of players was too large, making discussion and compromise-seeking difficult. This challenge could be mitigated by allocating more time, as discussed above. Four respondents stated that they found parts of the game (e.g., splitting into committees after the groups had been formed; the content of the amendment itself) to be confusing. This additional cognitive load could also negatively affect the ability to find compromise, as some players may be too busy making sense of the game itself. In retrospect, the wording of the question itself may have been confusing, as it potentially conflates players’ compromise-seeking skill with the game’s reward mechanics.

Some of the freeform comments contained suggestions on how to improve the player experience and the game itself. One player suggested implementing different difficulty levels for the game, so it could be playable by both younger, novice players as well as more knowledgeable and experienced ones. (While clearly a valuable suggestion, it is beyond the scope of the current project, whose focus is on a specific age group.) There were several helpful technical suggestions, such as making the content of the legislative proposal, as well as the changes proposed by the Council of the EU, available through the players’ personal devices, so they could be consulted during gameplay.

4.3 Learning outcomes

Questions Q04, Q10 and Q11 speak to RQ3: “What is the educational potential of the EP vRPG?” Cronbach’s Alpha for this group of questions is 0.56 (poor). Including more items in this cluster could have improved this, but was consciously eschewed in favor of having a shorter questionnaire, potentially increasing the response rate.

Before playing the game, participants provided mixed responses regarding their understanding of how the European Parliament works ($M=3.48$). Following the game session, their level of agreement with the statement considerably increased ($M=4.19$), with the difference (0.68) being statistically significant

($p < 0.0001$). While self-reported and lacking a longer-term follow-up, this finding suggests the EP vRPG has high educational potential. This is further supported by players reporting having enjoyed the game as a learning experience ($M = 4.45$) and expressed a desire to learn more about the EU after playing ($M = 4.38$). More broadly, this result supports the findings by Cruz-Martínez et al. that “students exposed to role-plays have higher short-term knowledge retention about political systems than those who took traditional lectures” [3].

Overall, the questionnaire data demonstrates that players found the EP vRPG to be an engaging experience, that they felt it helped them learn about the European Parliament, and that the game can increase players’ interest in the subject and in EU politics in general.

4.4 Limitations and future research

Several important limitations of the study must be acknowledged. While the analysis identified statistically significant differences between pre- and post-test questions, the effect size (other than for Q04) is fairly small, suggesting limited practical significance in terms of the game’s ability to influence players’ political interest. At the same time, the context in which the game was tested may have to some extent shaped the results. Namely, the European Youth Event, during which the game was played, attracted participants who were already interested in matters such as politics and civic participation, making even a small increase potentially meaningful. Conversely, these findings may not be generalizable to the average secondary school student, who may not have the same level of existing political interest. Furthermore, due to the event participants’ broader age range (16–30) compared to the game’s target demographic (16–20), the data may not reflect high-schoolers’ perceptions. While the present study provides a useful starting point, future research is needed to test the EP vRPG in a classroom setting.

The results presented in the study, including those relating to the game’s educational potential, are self-reported. A future study could incorporate a pre- and post-intervention knowledge test to determine whether the game increases players’ actual knowledge (and of what specific facts and concepts). Moreover, the post-game questionnaire was administered immediately after playing; a follow-up after a week or a month could provide a more longitudinal perspective and shed some light on knowledge retention after playing the game. Additionally, to increase data consistency and overall study reliability, more questions could be included related to political interest and learning outcomes. Incorporating observation data and complementing the players’ perspectives with, for example, interviews with game facilitators could also provide a more nuanced and comprehensive picture.

Since the EP vRPG supports a variety of scenarios, it could also be interesting to test alternative scenarios (based on different legislative proposals) to see if a particular type of proposal or subject matter could influence the players’ responses.

5 Conclusion

The aim of this study was to evaluate the European Parliament Virtual Role-Play Game—a hybrid, multiplayer, scenario-based parliamentary simulation—in terms of its ability to increase players’ political interest, improve learning outcomes, and provide an engaging player experience. Data was collected using a pre/post-intervention questionnaire administered during an event at which the EP vRPG was played by 303 participants. The findings suggest the game is engaging and can be considered a promising tool to both increase players’ political interest and improve their knowledge. Empowering facilitators to be more flexible with time allocation could further enhance player experience, allowing larger and more vocal groups sufficient time to deliberate and find compromises.

Future research should test the game in a more naturalistic classroom setting, incorporate a follow-up questionnaire to track the longer-term impact the game has on player knowledge and political interest, and explore a variety of scenarios.

Acknowledgments. The authors would like to thank the European Parliament Visitors Services Coordination Unit and Europa Experience Unit for their support.

Disclosure of Interests. The authors have no competing interests to declare that are relevant to the content of this article.

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