Journal of Contemporary European Research

Volume 15, Issue 1 (2019)

Teaching, Learning and the Profession

The Effectiveness of Simulations as an Outreach Tool: Using Simulations to Boost Interest in EU-Related Higher Education Study

Karen Heard Lauréote, Vladimir Bortun and Milan Kreuschitz

Citation

Heard Laureote, K., Bortun, V. and Kreuschitz M. (2019). 'The Effectiveness of Simulations as an Outreach Tool: Using Simulations to Boost Interest in EU-Related Higher Education Study', *Journal of Contemporary European Research* 15(1): 93-109.
https://doi.org/10.30950/jcer.v15i1.986

First published at: www.jcer.net

Abstract

The pedagogical effectiveness of active learning methods within university teaching, such as simulations, has been widely acknowledged. There is some evidence that simulations are effective tools at engaging students in the classroom. Yet, empirical evidence of actual impacts on learning are not as well-documented as they could be. Importantly however, little work has been done to see their contribution and impact as an outreach and recruitment tool to bring new students into the social sciences discipline. This article builds on the assumption that simulations can prove effective when used as university outreach tools to enhance interest in pursuing higher education study. We argue that EU-related simulations engaging students in secondary education stimulate their interest in studying European politics and, more generally, international relations at university level. The article relies on data collected through pre- and post-simulation questionnaires completed by the pupils who participated in simulations that took place in six secondary schools between 2016 and 2017. The empirical investigation reveals three key effects of those simulations. First, the simulations enhanced the participants' interest in pursuing university degrees associated with European Union (EU) politics. Second, the simulations increased the participants' self-assessed knowledge of EU politics. Third, the simulations consolidated the participants' perceived importance of understanding how the EU works. Overall, these findings back our claim that EU-related simulations may be used as outreach tools to boost interest in pursuing EU-related subjects in higher education. In the context of the ongoing Brexit process, such a boost is desirable as the understanding of EU politics will continue to be relevant for the future generations of British students.

Keywords

Education; Empirical; Outreach; Simulations; European politics; Higher education; Brexit

---

[1]The pedagogical benefits of active learning environments such as simulations within university teaching has now been widely acknowledged. Although empirical evidence of actual impacts on learning - at least in political science education - are not as well-documented as they could be (Baranowski and Weir, 2015), there is some evidence that simulations are effective tools at engaging students in the classroom. Importantly, however, little work has been done to see their contribution and impact as an outreach and recruitment tool to bring new students into the social sciences discipline.

[1] Editor's note: *Karen Heard-Lauréote is Section Editor for JCER's Teaching, Learning and the Profession section. In the case of this article, the anonymous review process, publishing decision and final editing and copyediting were undertaken by Editor-in-Chief, Maxine David.*

In the field of social sciences, simulations can generally be defined as activities where students are placed 'within a reasonable representation of a real environment within which political or social interactions occur' (Krain and Shadle 2006: 52). Their use as a teaching tool to engage university students in the curriculum has been widely researched and documented (cf. Hertel and Millis 2002; Jones, 2013; Sobisch, Scherpereel, Loedel, Van Dyke and Clark 2018). However, the employment of simulations as a *university outreach tool* at the pre-admission stage is less widely explored. 'University outreach' is the term most-often used to designate a range of services, events and activities offered by universities to schools and colleges in order to improve transition routes into higher education (HE). While there are some studies on simulations as an outreach tool for degrees related to STEM and medical sciences, there is virtually no similar study for degrees related to European Union (EU) politics (cf. Guasti, Muno and Niemann 2015) in particular or even social sciences in general. This is a significant oversight given that recent studies have revealed that simulations may lead to greater levels of student interest once enrolled on a university-level EU politics course (Clark, Van Dyke, Loedel, Scherpereel and Sobisch 2017). By extension, simulations should therefore boost interest amongst potential undergraduate students in enrolling on EU politics-related university degrees.

This article argues that EU-related simulations with students in secondary education may be used as an outreach tool to enhance their interest in studying at university level EU politics and, more generally, international relations and social sciences. This is expected to be the case especially for students with a pre-existing interest in these fields. To support this argument, the article relies on data collected via pre- and post-simulation questionnaires completed by participants in secondary school-based outreach simulations that took place between March 2016 and November 2017. They involved three universities (University of Portsmouth, Newcastle University and Loughborough University) and eight secondary schools and colleges situated in five localities across the UK: Portsmouth, Orpington, Dudley, Loughborough and Newcastle. The simulations took place in collaboration with the University Association for Contemporary European Studies (UACES), on the topic of freedom of movement in the EU.

The simulations had three key effects that are relevant to the present research. First, they enhanced participants' interest in pursuing university degrees in fields associated with EU politics, namely international relations (IR). This finding supports previous claims that active learning environments can increase students' interest (Schnurr, De Santo and Green 2014). At the same time, it suggests that the pupils taking part in the simulations often associated EU politics with IR rather than European studies (ES), which reinforces the recent trend, certainly within the curricula of UK universities, of the EU being studied within the field of political science, particularly IR (Drake 2017; McGowan 2008), rather than as part of area studies. We argue that, given the UK's prospective exit from the EU, this trend might be justified in the case of British universities.

Second, the simulations increased participants' self-assessed knowledge of EU politics. In other words, simulations boost participants' confidence regarding their understanding of the subject. Correlated with the fact that most participants manifested a predisposition for the subject of EU politics, this finding also supports the article's wider argument about the potential of EU-related simulations to increase interest in pursuing EU-related subjects at university level.

Third, the simulations consolidated the participants' perceived importance of understanding the workings of the EU. Although this finding was not statistically significant, assuming that an increased perceived importance of understanding a subject tends to lead to an enhanced interest in that subject (see Hulleman, Godes, Hendricks and Harackiewicz 2010; Hulleman, Thoman, Dicke and Harackiewicz 2017), this finding can also be seen as further strengthening the key argument of the article about the potential effectiveness of simulations as outreach tools.

The article is structured as follows: the first section provides an overview of the existing literature on simulations and the gap that the article addresses. The second section explains the methodology used within the case study. The third presents and discusses the findings and their implications. It suffices to note here that one of the most central is that a more systematic use of simulations as an outreach tool for enhancing interest in EU politics-related university degrees might be useful in the context of Brexit. Despite - or perhaps precisely because of the ongoing Brexit process, and the many uncertainties it entails, comprehension of EU politics will arguably continue to be an important asset for younger and future generations of UK-based university students.

SIMULATIONS IN THE LITERATURE

Simulations and role-plays are teaching methods that fall into a larger body of teaching strategies often-labelled as 'active learning techniques' or, more recently, 'student-activating learning environments' or 'active learning environments' (Ishiyama, Miller and Simon 2016; Krain, Kille and Lantis 2015; Lantis, Kille and Krain 2010). This pedagogic form also includes group discussions, debates, collaborative projects and internships. In essence, active learning can include any method that asks students to help develop and apply their own knowledge (Gibson and Shaw 2010).

Most definitions of simulations tend to be clouded by the often-interchangeable use of the terms 'simulation' and 'role-play' and other methods such as 'games' and 'gaming' (Smith and Boyer 1996). Whereas individual, computer-based simulations are frequent in STEM disciplines (science, technology, engineering and maths), this article is concerned with the use of simulations in social sciences and, in particular, in political science and EU politics. Thus, in line with Krain and Shadle (2006: 52), in this article, simulations are understood as those learning situations in which students are placed 'within a reasonable representation of a real environment within which political or social interactions occur'. The focus here is on political simulations, that is, simulated political deliberation or decision-making environments.

The use of simulations within HE and, in particular, in social sciences courses is not new. Indeed, practical examples of their empirical usage can be found stretching back at least to the 1950s across a variety of disciplines, from law to psychology to politics (see Bloomfield and Padelford 1959; Goldhamer and Speier 1959; Guetzkow 1959). As a result of this widespread and longstanding practical application, simulations as a pedagogical tool have been widely researched across a number of disciplines, including sociology (cf. Greenblat 1973), IR (cf. Asal 2005), law (cf. Hensley 1993), international development (cf. Krain and Shadle 2006) and economics (cf. Rodgers 1996).

One key aspect of the literature on simulations as a teaching method has been the focus on their perceived benefits, which are often seen in terms of more efficient and stimulated learning (Cobb 2000). More to the point, simulations entail three specific key benefits: increased depth of learning, student engagement and transferable skills development. First, simulations enhance depth of learning due to their ability 'to recreate complex, dynamic political processes in the classroom, allowing students to examine the motivations, behavioural constraints, resources and interactions among institutional actors' (Smith and Boyer 1996: 690). Consequently, students' deep immersion within the context of real decision-making and the real-world application of abstract ideas, theories and concepts leads to deeper understanding (Clayton and Gizelis 2005). Linked at least in part to the depth of learning benefits achieved is the positive effect of simulations on study results (Raymond and Usherwood 2013).

Second, simulations enhance student engagement by providing an opportunity to apply new knowledge learnt to actual situations. As such, they contribute to affective learning development in terms of empathy and appreciation of the complexity of the real world and learning regarding the

self (Druckman and Ebner 2013). Importantly, the student engagement benefits of simulations are not only due to their ability to apply new knowledge to actual situations, but also because they are fun and a change from more traditional lecture styles of teaching, they create intrinsic desires to learn and can allow for social relationships to develop (cf. Hromek and Roffey 2009; McCarthy 2014). Simulations also show real-world implications allowing students to determine the relevance of what they are being taught. Simulations thus provide obvious incentives for students to learn and truly to engage with the learning process. Some research also shows that simulations promote increases in student participation, motivation (Raymond and Usherwood 2013) and preparedness compared to traditional teaching modes, based on evidence from attendance monitoring and the duration of students' pre-reading and preparation (Shellman and Turan 2006).

Finally, simulations facilitate transferable skills development as a means to increase student opportunities for critical thinking, debating, public speaking, presenting and communicating, reasoning, negotiating and by facilitating overall enhancement of individual self-confidence (Schnurr et al. 2014).

These three broad positive characteristics usually associated with simulations as a beneficial learning tool can be complemented by simulations' other marketable attributes. For example, they can help promote universities as having contemporary relevance and being innovative and enterprising destinations for prospective students; an attribute commonly reflected and promoted in HEIs' mission statements. Simulations can also positively influence the image of disciplines like political science which can be perceived of as dry, staid or theoretically complex, making them more interesting, exciting and accessible. The UK-based Quality Assurance Agency for Higher Education (QAA) benchmarks for politics and international relations degrees in the UK state that students are expected to use a range of learning methods, with an appropriate balance of lectures, seminars, workshops, student-led and tutor-led sessions and skills-based, discussion based and knowledge based classes as well as placements, field trips and simulation exercises (QAA 2015: 14).

Simulations are not yet, however, necessarily considered a mainstream teaching technique for political science. Although more widespread than in the past, scholars have noted that politics departments have generally remained reluctant to adopt or even resistant to simulations (cf. Kozimor-King & Chin, 2018) despite the benefits they offer and that these practices reflect a culture of inertia (Parker and Wyman 2012: 8). This is problematic when politics departments are educating students for an academic career when the strengths of many students may be in, for example, argument, debate, communicating to non-specialist audiences (Usherwood 2016).

Crucially, while much literature has discussed the potential or assumed benefits of simulations on learning and student engagement as noted above, research falls short of providing adequate empirical evidence of their actual interest boosting effects; specifically, their contribution and impact as an outreach and recruitment tool to bring new students into the social sciences discipline. This article speaks to these drawbacks by presenting such evidence. Interest boosting effects are associated with affective learning outcomes (LOs) as opposed to cognitive (enhanced learning) or regulative (enhanced reflective skills) learning outcomes. Affective LOs relate to the feelings that arise during learning experiences that create an emotional state that may positively, neutrally or negatively affect the learning process (Vermunt and Vermetten 2004). Research on the use of active learning environments like simulations within political science mostly defines these affective LOs as interest (e.g. Bridge and Radford 2014; Zaino and Mulligan 2009) or motivation (e.g. DiCicco 2014; Jones and Bursens 2015). Sparking university students' individual interests is significant because these are 'enduring' and 'trait-like' and thus they 'can have a powerful influence on people's lives, by impacting how they choose to spend their free time ... [and] the trajectory of students' careers after college' (Harackiewicz and Hulleman 2010: 44). Indeed, research demonstrates that university students who are interested in a topic tend to engage more with material, to interrogate concepts

more freely and rigorously, to lose themselves in pursuit of topic-related knowledge, and to sustain levels of engagement over time (Ainley, Hidi and Berndorff 2002; Hidi and Baird 1988; Hidi and Renninger 2006; Schiefele, Krapp and Winteler 1992).

The impact of simulations on the levels of interest of students enrolled at university has been tackled in several studies (Asal and Blake 2006; McKeachie 1986; Schnurr et al. 2014; Shellman and Turan 2006). There seems to be a division in the literature between those who believe simulations arouse students' interest in the subject of study covered by the simulations (Belloni 2009; Shellman and Turan 2006) and those who either contest any causal relation between simulation and levels of interest (Raymond 2010; Raymond and Usherwood 2013) or even argue that simulations might actually decrease levels of interest (Schnurr et al. 2014; Smith 2012). There seems to be a consensus, however, that there is insufficient empirical - and not merely 'anecdotal' (Raymond and Usherwood 2013) - evidence that simulations boost the interest of enrolled students. Importantly, one of Raymond and Usherwood's (2013) main critiques of the existing literature is that instructors tend to assess learning using student self-assessment of learning, and that more empirical work needs to be done on instructor or external assessment of learning. Although the research presented in this article also relies on student self-assessment of learning, it contributes to the debate by bringing original empirical evidence that supports the expected causal link between simulations and increased participant interest. Moreover, the article builds on the premise that if simulations can spark students' interest once enrolled at university, they also have the potential to generate positive effects on interest levels amongst prospective university students yet to enrol on a university undergraduate course. Specifically, it is argued that political simulations have the capacity to spark an interest in studying a social science discipline at university; in this case, to study EU politics particularly. In this way, it is argued here that simulations can be used as an effective university outreach tool.

'University outreach' is the term most-often used to describe a range of services, events and activities that universities offer to schools and colleges to improve transition routes into HE. They are meant to help inform and inspire potential students to take up opportunities available in HE. The incentive for universities to provide outreach services, at least in the UK context, primarily resulted from the widening participation agenda aimed at widening admissions to students from non-traditional backgrounds. There is also an economic imperative behind outreach. In 2011, the British government shut down its AimHigher and Connexions programmes – the careers services for sixth-form and Further Education (FE) pupils. In the aftermath of the 2011 Education Act, approximately 450M GBP was cut from school careers services, which have been replaced with the National Careers Service: a mere website and helpline with no special remit to help school leavers (Rich 2012). Hence, university outreach services have to some extent filled the considerable vacuum in careers advice in sixth forms - of course, not purely out of altruistic intentions, but as an integral condition for the introduction of higher student fees. Outreach also contributes to universities' engagement with local business and services, such as sixth form and other educational providers that supply technical and vocational education (the new 'T levels'), which is also part of the government strategy. Undoubtedly, outreach is becoming more prominent within the university sector. One indicator of the direction of travel is the recent advent of senior university posts such as Associate Pro-Vice Chancellor for Education Partnerships. For instance, that is the case at the authors' own university, where a new senior member of staff has been recruited to develop links with schools and colleges in order to encourage progression routes into HE.

Finally, there is an emerging body of literature exploring the use of simulations as an outreach tool in STEM-related subjects, such as engineering courses (cf. Bugallo and Kelly 2017) and computer sciences (Lakanen 2016). However, such literature in the case of humanities and social sciences is still scarce, even more so in the particular case of EU politics. Although 'the use of EU simulations is

growing' (Guasti, Muno and Niemann, 2015: 206), the few studies discussing their benefits as a learning tool (Baroncelli, Farneti, Horga and Vanhoonacker 2014; Brunazzo and Settembri 2014; Jones and Bursens 2014) do not deal with the question of interest-boosting or whether simulations may also be used as effective outreach tools. Therefore, the present study aims to bring much needed empirical evidence of the utility of political simulations for outreach, i.e. as a tool to stimulate interest in university degree courses related to EU politics. Before doing so, the following section describes the context in which the empirical research was conducted.

SECONDARY SCHOOL-BASED POLITICAL SIMULATIONS

The political simulations that form the focus of this analysis were part of a wider set of activities linked to an Erasmus + Jean Monnet Activities funded project entitled 'Teaching Young People European Studies' (TYPES) led by the UK-based organisation, UACES. The latter is a professional organisation dedicated to the advancement of education for the public benefit through the promotion of teaching and research in contemporary European studies (UACES 2019). The project included, amongst other activities, funding for a series of EU politics-based political simulations involving A-level pupils. The simulations were organised by the TYPES Project Steering Group as part of the UACES Teaching and Learning Working Group (of which the lead author is a member). The simulations were delivered in collaboration with three UK universities, the University of Portsmouth (two simulations), Loughborough University (two simulations) and Newcastle University (one simulation). Pupils from eight secondary schools and sixth form colleges (South Downs College in Havant, Hampshire; Newstead Wood School in Orpington, Kent; De Lisle College in Loughborough; Dudley College in Dudley; and Burnside College, Sacred Heart High School, Durham School, and Churchill Community College, all in Newcastle) participated in the simulations included in this study.

The TYPES project aimed to engage A-level and AS-level politics pupils in critical thinking about EU politics. It entailed them taking on the role of different stakeholders within two negotiation scenarios revolving around the topic of free movement in the EU; one focusing on free movement in the context of the refugee crisis and the other in the context of the Brexit process. Both scenarios saw pupils taking on roles of British and French/European officials as well as of representatives of other stakeholders such as local communities and businesses. In both cases, the parties were encouraged to debate their positions, under the guidance of two of their colleagues who acted as moderators, with the aim of reaching a consensual decision. Such a decision was achieved in each iteration of the simulations. The pupils were supported throughout the simulation by academics, and sometimes also by undergraduate and postgraduate students from the partner universities. These were students who had experienced political simulations as part of their own degree courses and who were present to provide mentoring to the pupils. Academics from these universities travelled to the schools prior to the simulation events to talk to teachers and pupils and provide materials for the day.

In order to account for any potential change in pupils' interest in EU politics as a result of participating in the simulations, a survey was conducted using two written questionnaires - one distributed at the beginning of the political simulation ('before'/'pre') and one at the end ('after'/'post'). The data collected from these questionnaires provides the evidence underpinning the analysis in this article.

A convenience sampling technique was employed to select the schools taking part in the simulations. This was based on each school's convenient accessibility (through pre-established contacts) and geographical proximity to the TYPES Steering Group members. The same sampling technique was used to select the A-level pupils for the simulations, with the lead teacher at each school inviting them to participate. In some cases, the lead teacher targeted invitations at those pupils they believed to be most interested in taking part. This pre-selection process is noteworthy in the context

of the findings, which suggest that these simulations boosted pupil interest in EU politics. Given that the boost occurred amongst a cohort of predisposed pupils already expressing higher interest levels than their peers, there might be risk of a selection bias. However, there are three key points to make with regards to this. First, any selection bias is inevitable given that simulations as outreach tools are not compulsory (in the same way that simulations as learning tools might be when used in a credit-bearing module) but work on a voluntary basis. As such, these events will inevitably draw participants with some pre-existing interest in the subject of the simulations. Second, even so, the fact that in this particular case participants seemed interested to take part in a simulation on EU politics does not necessarily mean that they were already interested in EU politics. They might have just been targeted by the teachers because of their broader interest in politics, good communication skills or because they were seen as potentially good ambassadors for the school at an event organised by external actors. Third, and most important, even if participants had a pre-existing level of interest in EU politics specifically beyond simply politics in general, this is already acknowledged through the pre-event questionnaires. Therefore, pre-existing selection bias can be safely discounted for this article.

Approximately thirty pupils from each school were invited to participate voluntarily in the simulations as part of their 'enrichment' activities, with the large majority of those taking part being enrolled on the Politics A- or AS level. Overall, N=95 anonymous questionnaires were gathered in the simulations conducted for this article before ('before'/'pre' data) and after ('after'/'post' data) the simulations. The null hypothesis was taken to be 'no change', meaning that the students' responses would not be affected by the simulation activity. The collected quantitative data was then tested for departures from our null hypothesis and their statistical significance. As the before and after questionnaires had both quantitative and qualitative open-ended response options and were not entirely identical, our statistical pre- and post-analysis focused on three quantifiable questions that were identical in both sets of questionnaires. The central question of our article regards the effectiveness of simulation exercises as an outreach tool for A-level students. The three core questions of our pre- and post-analysis included one multiple choice question and two five-point Likert-scale items. The multiple-choice question addressed participants' intentions regarding their interests in studying any humanities and social science subjects related to EU politics at university. The Likert-scale items asked for (i) participants' self-assessment of their knowledge of the workings of the EU and (ii) for an evaluation of the importance of understanding the EU in general.

ANALYSIS

The data gathered through the questionnaires was transferred into Microsoft Excel worksheets and data cleaning was performed prior to the analysis. For instance, the first question related to participants' intentions and their interest in studying at university level subjects related to EU politics: political science, IR, European studies, law. In response, several participants did not cross either of the possible options but then proceeded to write the same or similar choices into their open-ended 'other' response option. In these cases, their responses were re-assigned into the predefined answer options in order to facilitate accurate statistical analysis. Furthermore, a number of the 95 questionnaires were returned incomplete, which was accounted for in our significance tests, by using correct values for N depending on the response rate for each question item. As this first question was binomial in nature, merely asking for interest or disinterest for each of the subject options, binomial tests were carried out for each answer option to determine whether the individual increases in the 'after' questionnaires could be explained by the effect of having participated in the simulation with a p=0.95 certainty.

Data cleaning was not necessary for the two five-point Likert-scale items asking for participants' self-assessment of their knowledge of the European Union and for their perceived importance of

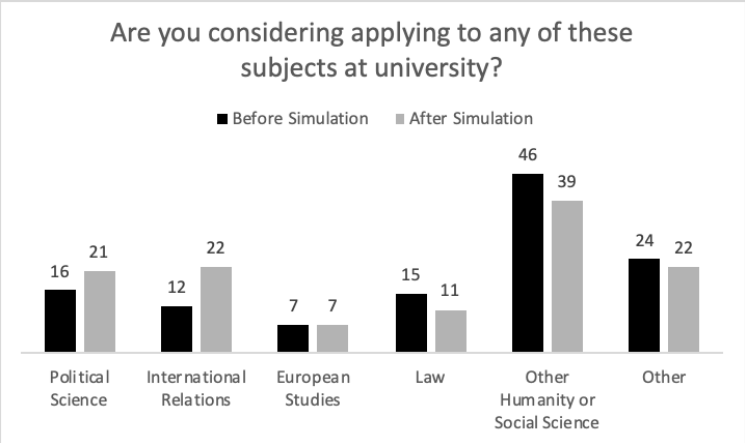
understanding the EU. However, as mentioned earlier, a number of participants did not hand in complete questionnaires at the end of simulations. This small discrepancy in responses was mathematically accounted for within our analysis, again by taking care to use correct values for N for both pre- and post-questionnaires. Here, standard t-tests were carried out to assess the statistical significance of the departure from our null-hypothesis that simulations would not change participants' self-assessments of their EU knowledge and perceived importance of such knowledge. The remaining questions were qualitative and open ended in nature and were not considered in this part of the analysis. Nevertheless, they provided interesting contextual information for our wider understanding of the effectiveness of simulations as an outreach tool.

The collected data generated three key findings. First, statistically significant increases were recorded, after the simulations were conducted, in participants' interest towards studying IR at university level, but not for European studies or political science. Second, a statistically significant shift towards higher self-assessment of EU knowledge was recorded after completing the simulations. Third, despite a small change towards assessing the importance of EU knowledge as 'very important', the results are not statistically significant. These findings are each discussed in detail below.

Finding 1: participants' interest towards studying university degrees related to EU politics

A-level pupils participating in the simulations were asked whether they were considering a range of humanities and social sciences degrees at university, specifically in fields of study cognate to EU politics. Pre- and post-event responses to our question 'Are you considering applying to any of these subjects at university?' (Figure 1) show an increase in two of the four predefined answer options (political science, IR and European studies) and a decrease in interest in studying law and the 'Other' options.

Fig. 1. Pre- and post-lobbying simulation responses of participants regarding students' considerations of fields of study at university



Following binomial testing of each subject independently, the 9.63 per cent increase for IR resulted in a rejection of our null-hypothesis of 'no-change' with over 95 per cent certainty, meaning that we could consider the increase in interest for this subject as statistically significant. We conclude, therefore, that the increase of academic interest in this discipline is most likely due to the experience of having participated in the simulation activity and cannot be explained by random variation within our N=95 test group. However, the same cannot be said for the increase in interest in studying European studies or political science. Indeed, with N=95, the 0 per cent increase in interest towards

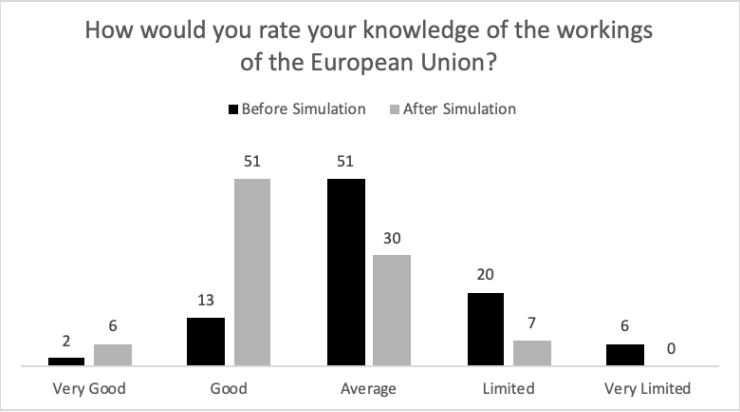
studying European studies, and 3.78 per cent increase in interest towards studying political science, were both statistically insignificant, thus confirming the null-hypothesis of 'no change'.

In sum, as a result of the simulations, the statistically significant increases in interest amongst the A-level pupils were recorded towards studying IR at university, but not for European studies or political science. However, when taking all three politically orientated subjects (political science, IR, European studies) together, the increase in interest for them remains statistically significant overall. Nevertheless, it is important to note that the data do not indicate that pupils expressing an initial desire to study university degree subjects that fall outside of the humanities and social sciences become more attracted to the latter. Instead, it shows that pupils who are predisposed to studying humanities and social science subjects see that interest consolidated through their participation in the simulation outreach activity.

Finding 2: participants' self-assessment of their knowledge of EU politics interest towards studying university degrees related to EU politics

A-level pupils participating in the political simulations were asked to rate, before and after the event, their knowledge of the workings of the EU in order to determine whether the simulation was a driver for enhanced self-assessment of knowledge. A five-point Likert-scale question was used - 'How would you rate your knowledge of the workings of the European Union?'.

Fig. 2. Pre- and post-simulation participants' self-assessment of knowledge of the workings of the EU



As depicted in Figure 2, the survey responses recorded a noticeable shift towards higher self-assessment of participants' knowledge of the EU after having participated in the simulation. Subsequent data analysis supported this finding. A one-tailed t-test of 'before and after', looking for increase only, shows that our null-hypothesis of 'no-increase' can be rejected with t=-4.65. Thus, we can say that the increase between the 'before and after' results is significant with 95 per cent certainty, which means that the participants' increased self-assessment of the EU is highly likely to be an effect of the simulation itself.

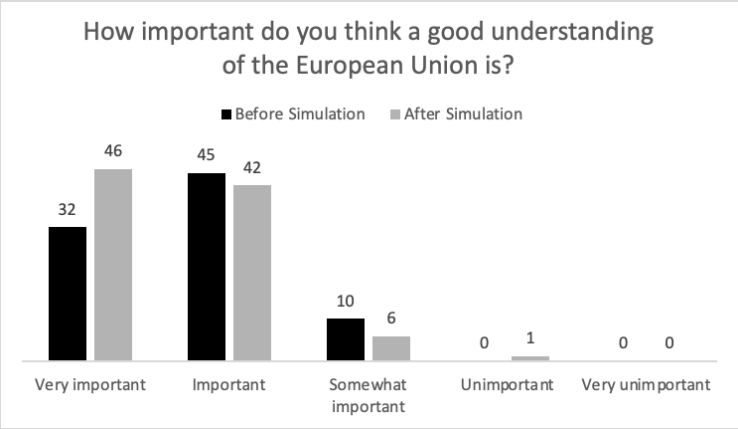
Finding 3: participants' perceived importance of understanding how the EU works

The A-level pupils who participated in the simulations were asked to rate their perceived importance of understanding the EU. To capture this, a second Likert-scale question asked 'How important do you think a good understanding of the European Union is?'. As depicted in Figure 3, the responses show only a small change in pupils' self-assessed perceived importance of EU knowledge as 'very important'.

The subsequent analysis confirmed that, while a small change with t=-1.46 in perceived importance can be seen, the increase recorded after the simulation is nevertheless too weak to be considered statistically significant.

Considering that the 'before' data for this question was already strongly biased towards pupils' perceived importance, this result is not very surprising, as none of the participants deemed the understanding of EU workings as very unimportant, with only one respondent considering this understanding to be unimportant.

Fig. 3. Pre- and post-lobbying simulation responses of participants' assessment of the importance of understanding the workings of the EU



DISCUSSION

As pointed out in the introduction, one of the central and broader implications of Finding 1 is that political simulations with secondary school students significantly increase their interest in pursuing EU politics-related subjects, namely IR, at university level. In other words, political simulations may be effectively used as outreach tools to increase interest in higher education degrees in IR. While the effectiveness of political simulations as outreach tools might seem intuitive given their arguable effectiveness as learning tools for these subjects, there has been very limited, if any, empirical evidence to support the former. Thus, the present research helps bridge a gap in the existing literature, which has been focusing so far on the role of simulations as outreach tools in the case of STEM-related degrees or only on their role as learning tools in the case of social sciences.

While increased interest in studying IR at university level is manifested mainly among those predisposed to studying such subjects, that might also be seen as a testimony to the effectiveness of political simulations in consolidating pre-existing interest in IR. Thereby, this finding also confirms the claim that active learning environments and particularly simulations can boost interest, thus contributing to the ongoing debate on this issue (see Schnurr et al. 2014). Moreover, this implication seems particularly significant for the UK context, which has recently witnessed decreasing public funding for social sciences in general (Shaw 2015); for decreasing public funding arguably compels departments of social sciences to rely more on the revenue provided by tuition fees. Indeed, the lack of public funding might act as a deterrent for pre-university students themselves when considering which degree to choose, particularly so in the case of those already aiming at pursuing, later on, postgraduate research degrees, which tend to depend to a large extent on government funding. In other words, the need for attracting students to social science-related degrees, including the IR-related ones, is now greater in the context of decreasing public funding and political simulations might, therefore, play a role in that respect.

In the particular case of EU politics, although there has not been a significant increase in participants' interest in pursuing specifically EU politics-related degrees at university level, such as European studies, there has been an increase in interest towards IR. That suggests that participants tended to associate EU politics with IR rather than with ES. This implication aligns with the trend for EU politics to be studied, at least in the British higher education system, as a subfield of political science and particularly IR, in contrast to its more traditional location within area studies (Drake 2017; McGowan 2008). This latter field, including ES, has 'undergone something of a crisis' (McGowan 2008). Indeed, according to Drake, 'European studies has all but disappeared from UK university curricula, departments have closed, and the subject area no longer merited its own 'sub-panel' in the 2014 Research Excellence Framework (REF)...' (Drake 2017). However, while ES has declined as a university subject (see also Smith 2003, 2002), the EU studies subfield of regional integration 'has flourished' and gone 'from strength to strength' (McGowan 2008). This is perhaps due to the ability of this subfield to identify itself effectively as a branch of political science (McGowan 2008) - a trend that is certainly reflected at the authors' own institution. However, despite this trend, the increase in participants' interest in studying political science at university level was not statistically significant, which may be related to secondary school pupils not associating 'politics' with 'science'.

Going back to the association of EU politics with the field of IR, the Brexit process itself and the new relationships that will emerge from it between the UK and the remaining member states of the EU warrant placing EU politics within the field of IR, at least in British universities. In other words, it does make more sense for British students to study EU politics in an IR context once Britain will stop being a member of the EU. Moreover, the EU's own future is more uncertain than ever with potential further disintegration, as other current members might choose to break away in the future. Indeed, all European countries (not just the EU) are currently experiencing multiple challenges, from prolonged austerity measures to the migrant crisis to the resurgence of extremist and populist politics. It is therefore important that universities continue to form the next generation of decision makers to understand Europe as a wider geopolitical construct, which may be best done in the context of comparative regionalism within IR.

Last but not least, the image of studying the EU as a UK university degree subject in its own right is arguably marred by general public discontent and scepticism with the EU, often amplified by the media. It takes a courageous student to go against the anti-EU populist tide in the UK (particularly in these Brexit years) and enrol for a course devoted to the study of the EU that may be negatively perceived by friends and family. This, of course, has knock-on effects for the size of cohorts where low student numbers on EU studies make courses untenable. Conceiving of studying the EU as part of a broader IR programme is thus perhaps more palatable.

According to Finding 2, the participants in the simulations indicated, in the post-event questionnaire, a better knowledge of the workings of the EU than before the simulation. While this does not directly suggest a greater interest in studying the EU at university level, it does demonstrate that, following the simulation, A-level pupils have greater confidence in their own knowledge and capability of understanding the subject. In turn, such increased confidence may arguably make them (more) confident in choosing EU politics as part of their university degree studies, given that a certain level of interest in the subject was present in most participants prior to the simulation. Therefore, Finding 2 supports the article's claim that political simulations may be used as effective outreach tools to boost interest in EU politics-related subjects at university level. At the same time, by revealing the boost in self-perceived understanding of how the EU works, Finding 2 confirms the claim in the current literature that simulations are effective learning tools.

Finding 3 shows that simulation participants expressed, in the post-event questionnaire, an increased awareness of the importance of understanding the EU, with a 11.73 per cent increase on the 'Very Important' option. However, the overall increase within the answers of this question were not

statistically significant, given that students attended the simulation with a pre-existing high level of perceived importance of understanding the EU. Nevertheless, that perceived importance has been at least consolidated. We may assume - along the lines of Hulleman et al. (2010; 2017) - that the more students perceive the understanding of a subject as important, the more likely it is that they will be interested in understanding and studying that subject. Therefore, by consolidating the participants' perceived importance of understanding the EU, the simulation arguably also consolidated their interest in understanding and, thereby, studying the EU. Therefore, Finding 3 indirectly supports the key argument of the article that political simulations may be effective outreach tools to promote interest in pursuing EU politics-related subjects at university level.

Indeed, as discussed with respect to Finding 1, enhancing the awareness of present and future generations of British students regarding the importance of understanding the EU will remain relevant despite the UK's exit from the EU or perhaps precisely because of that exit and all the uncertainties it entails. Given that, as pointed out earlier, the Brexit process will most likely fundamentally restructure the UK's relations with both the EU as a whole and its individual member states, understanding EU workings and politics, and thereby EU-related university degrees, will be as relevant as ever.

CONCLUSION

Overall, this article bridges identified lacunas in our knowledge about the pedagogical benefits of simulations by providing much needed evidence of their empirical effects. The key effects documented here are threefold. First, simulations increased participants' interest in pursuing university degrees in fields cognate to EU politics such as IR, particularly in the case of students predisposed to pursuing a degree in this field. Second, simulations increased participants' self-assessment of knowledge of EU politics and, third, simulations consolidated participants' assessment of the importance of understanding the workings of the EU. As such, the article also provides much needed empirical evidence of affective learning outcomes of simulations, particularly their interest boosting potential.

Collectively, these findings substantiate the article's overall claim regarding the potential effectiveness of simulations as an university outreach tool to enhance interest in studying EU politics-related subjects. In this way, the findings contribute to filling a gap in the current literature about the empirical effects of simulations at the pre-university admission stage rather than the literature's common focus on simulations' pedagogical benefits as a teaching tool for enrolled university students. In particular, the article targets the space between secondary and higher education levels by providing evidence for the usefulness of simulations as an outreach tool for subjects cognate to EU politics, IR in particular.

This article used data gathered via a pre- and post-simulation questionnaire, which was completed by the participants in the simulations that took place at secondary schools with overall N=95 participants. However, further study could help improve the overall statistical reliability and precision as well as confirm statistical significance for those data points where positive changes have been observed but significance thresholds have not been reached. Moreover, it would be interesting to conduct a further post-event questionnaire after a period of time to assess the durability of the simulation effects discussed here and also to identify which subjects the participating pupils went on to study at University.

The findings presented in this article focus on the UK and may suggest unique British perspectives on matters regarding the study of EU politics that may not be generalisable internationally. More importantly, however, the question of whether simulations are effective outreach tools to boost

interest in studying at university level should be investigated internationally, adding a geographical comparative dimension to confirm further this article's findings. Thanks to the relatively simple design of the questionnaires used by the authors, replicating the experiment in other countries would pose no foreseeable problems, as long as the questionnaires are translated correctly in regard to language and cultural contexts.

In addition to the geographically comparative perspectives, further research should also investigate whether the findings could also be replicated regarding different fields in humanities and social sciences. The simulations' interest boosting effects presented in this article have likely been contingent on having dealt with the highly topical and contentious contemporary issues of the European migration crisis and Brexit. The success of simulations as outreach tools for humanities and social sciences is likely to depend on contemporary contexts, suggesting that simulations need not only to be relevant, but are also limited by time in their applicability. Therefore, the topics of the migration crisis and Brexit were ideal subjects for conducting this research in the United Kingdom between 2016 and 2017.

One significant implication of our findings is that secondary school students tend to associate EU politics with IR rather than ES, which confirms an ongoing trend in British universities that has been noticed by several scholars (Drake 2017; McGowan 2008; Smith 2003; 2002). Indeed, it might be the case that IR better suits the study of EU politics, at least in the UK, given the Brexit process and the redefined relations that the UK will have with the individual member states of the EU. Moreover, in a background of rising Euro-hostile attitudes and political forces across the EU, the possibility of further disintegration - albeit not likely for the present time - does enhance the need to understand and study Europe in a broader way.

Last but not least, we have also pointed out that the relatively hostile environment towards the EU within British society might make IR more attractive to students, at least more so than ES. On the other hand, there is, of course, the argument that EU politics should be studied as part of ES not only because the EU is still a highly integrated entity both economically and politically that arguably warrants a non-IR approach, but also from a British perspective, as the UK will still have to deal with the EU as a whole, and not just its individual members, thus maintaining the relevance of understanding its workings as a whole. In any case, regardless of whether EU politics is better off as part of ES or IR (a debate which falls outside the scope of the present article), it is worth emphasising that understanding the EU and Europe as a whole will continue to be relevant - despite, or precisely because, of the Brexit process - for present and future generations of British students.

ACKNOWLEDGEMENTS

We wish to thank UACES and the TYPES Project Steering Group for funding and organising the political simulations discussed in this article. Also, a draft version of the article benefited from valuable feedback at the 2018 Joint Sessions of Workshops organised by the ECPR at the University of Nicosia, Cyprus, where our participation was facilitated by CESTE2 funding. Finally, we would like to thank the anonymous reviewer for the constructive advice offered during the review process.

AUTHOR DETAILS

Karen Heard Lauréote, University of Portsmouth
Vladimir Bortun, University of Portsmouth
Milan Kreuschitz, University of Portsmouth

Corresponding author: Karen Heard-Lauréote, SASHPL, Milldam Building, University of Portsmouth, Burnaby Road, Portsmouth, PO1 3AS [karen.heard-laureote@port.ac.uk].

REFERENCES

Ainley, M., S. Hidi and D. Berndorff (2002). 'Interest, learning, and the psychological processes that mediate their relationship'. *Journal of educational psychology*, 94(3): 545-561. DOI: 10.1037/0022-0663.94.3.545.

Asal, V (2005). 'Playing games with international relations'. *International Studies Perspectives*, 6(3): 359-373. DOI: https://doi.org/10.1111/j.1528-3577.2005.00213.x.

Asal, V. and E. L. Blake (2006). 'Creating simulations for political science education'. *Journal of Political Science Education*, 2(1): 1–18. DOI:10.1080/15512160500484119.

Baranowski, M. l. K. and K. A. Weir (2015). 'Political Simulations: What We Know, What We Think We Know, and What We Still Need to Know'. *Journal of Political Science Education,* 11(4): 391-403. DOI: 10.1080/15512169.2015.1065748

Baroncelli, S., R. Farneti, I. Horga and S. Vanhoonacker (eds) (2014). *Teaching and Learning the European Union*. Dordrecht: Springer.

Belloni, R (2009). 'Role-Playing International intervention in conflict areas - Lessons from Bosnia for Northern Ireland education'. *International Studies Perspectives*, 9: 220–234. DOI: https://doi.org/10.1111/j.1528-3585.2008.00328.x

Bloomfield, L. P. and N. J. Padelford (1959). 'Teaching note: Three experiments in political gaming'. *The American Political Science Review*, 53(4): 1105-1115.

Bridge, D. and S. Radford (2014). 'Teaching diplomacy by other means: Using an outside-of-class simulation to teach international relations theory'. *International Studies Perspectives*, 15(4): 423-437.

Brunazzo, M. and P. Settembri (2014). 'Experiencing the European Union: A simulation game on the European Citizens' Initiative'. Online: https://www.sisp.it/files/papers/2013/marco-brunazzo-and-pierpaolo-settembri-1500.pdf [accessed 22 May 2018].

Bugallo, M. F. and A. M. Kelly (2017). 'Engineering Outreach: Yesterday, Today, and Tomorrow [SP Education]'. *IEEE Signal Processing Magazine*, 34(3): 69-100.

Clark, N., G. Van Dyke, P. Loedel, J. Scherpereel and A. Sobisch (2017). 'EU Simulations and Engagement: Motivating Greater Interest in European Union Politics'. *Journal of Political Science Education,* 13(2): 152-170. DOI: 10.1080/15512169.2016.1250009.

Clayton, G. and T. I. Gizelis (2005). 'Learning through simulation or simulated learning? An investigation into the effectiveness of simulations as a teaching tool in higher education'. Online: https://www.bisa.ac.uk/files/Prizes/ClaytonGizelisBISAPAPER.pdf [accessed 22 May 2018].

Cobb, S. (2000). 'Negotiation pedagogy: Learning to learn'. *Negotiation Journal*, 16(4): 315-319.

DiCicco, J.M. (2014). 'National security council: Simulating decision-making dilemmas in real time'. *International Studies Perspectives*, 15(4): 438-458. DOI: 10.1111/insp.12018

Drake, H. (2017). 'May's 'Global Britain': the decline and fall of European Studies'. *LSE Brexit*. Online: http://blogs.lse.ac.uk/brexit/2017/03/23/mays-global-britain-the-decline-and-fall-of-european-studies/ [accessed 22 May 2018].

Druckman, D. and N. Ebner (2013). 'Games, claims, and new frames: Rethinking the use of simulation in negotiation education'. *Negotiation Journal*, 29(1): 61-92.

Gibson, K. and C. A. Shaw (2010). 'Assessment of active learning'. *The International Studies Encyclopedia*.

Goldhamer, H. and H. Speier (1959). 'Some observations on political gaming'. *World Politics*, 12(1): 71-83.

Greenblat, C. S. (1973). 'Teaching with simulation games: A review of claims and evidence'. *Teaching Sociology*, 1(1): 62-83.

Guasti, P., W. Muno and A. Niemann (2015). 'Introduction - EU simulations as a multi-dimensional resource: From teaching and learning tool to research instrument'. *European Political Science*, 14(3): 205-217. DOI: https://doi.org/10.1057/eps.2015.18.

Guetzkow, H. (1959). 'A use of simulation in the study of international relations'. *Systems Research and Behavioral Science*, 4(3): 183-191.

Harackiewicz, J. M. and C. S. Hulleman (2010). 'The importance of interest: The role of achievement goals and task values in promoting the development of interest'. *Social and Personality Psychology Compass*, 4(1): 42-52. DOI: 10.1111/j.1751-9004.2009.00207.x

Hensley, T. R. (1993). 'Come to the edge: Role playing activities in a constitutional law class'. *PS: Political Science and Politics*, 26(1): 64-68.

Hertel, J. P. and B. Millis (2002). *Using Simulations to Promote Learning in Higher Education: An Introduction*. Sterling, VA: Stylus.

Hidi, S. and W. Baird (1988). 'Strategies for increasing text-based interest and students' recall of expository texts'. *Reading Research Quarterly*, 23(4): 465-483.

Hidi, S. and K. A. Renninger (2006). 'The four-phase model of interest development'. *Educational psychologist*, 41(2): 111-127.

Hromek, R. and S. Roffey (2009). 'Promoting Social and Emotional Learning With Games: "It's Fun and We Learn Things"'. *Simulation & Gaming*, 40(5): 626-644.

Hulleman, C.S., O. Godes, B.L. Hendricks and J.M. Harackiewicz (2010). 'Enhancing interest and performance with a utility value intervention'. *Journal of Educational Psychology*, 102(4): 880-895.

Hulleman C.S., D.B. Thoman, A.L. Dicke, J.M. Harackiewicz (2017). 'The Promotion and Development of Interest: The Importance of Perceived Values'. In P. O'Keefe and J. Harackiewicz J. (eds), *The Science of Interest*. Springer, Cham: 189-208.

Ishiyama, J., W. J. Miller and E. Simon (2016). *Handbook on Teaching and Learning in Political Science and International Relations*. Cheltenham: Edward Elgar.

Jones, K. (2013). *Simulations: A handbook for teachers and trainers*. London: Kogan Page Ltd.

Jones, R. and P. Bursens (2014). 'Assessing EU simulations: Evidence from the Trans-Atlantic EuroSim'. In S. Baroncelli, R. Farneti, I. Horga and S. Vanhoonacker (eds.), *Teaching and Learning the European Union*. Dordrecht: Springer: 157–185.

Jones, R. and P. Bursens (2015). 'The effects of active learning environments: How simulations trigger affective learning'. *European Political Science*, 14(3): 254-265. DOI: https://doi.org/10.1057/eps.2015.22

Kozimor-King, M. L., & Chin, J. (eds) (2018). *Learning from Each Other: Refining the Practice of Teaching in Higher Education*. California: Univ of California Press.

Krain, M., K. J. Kille and J. S. Lantis (2015). 'Active Teaching and Learning in Cross-National Perspective'. *International Studies Perspectives,* 16(2): 142-155. DOI: https://doi.org/10.1111/insp.12083.

Krain, M. and C. J. Shadle (2006). 'Starving for knowledge: An active learning approach to teaching about world hunger'. *International Studies Perspectives*, 7(1): 51-66.

Lakanen, A. J. (2016). 'On the impact of computer science outreach events on K-12 students'. *Jyväskylä studies in computing 236.* Jyväskylä: University of Jyväskylä.

Lantis, J. S., K. J. Kille and M. Krain (2010). 'The State of the Active Teaching and Learning Literature'. *The International Studies Encyclopedia,* 10: 1-19.

McGowan, F. (2008). *The contrasting fortunes of European studies and EU studies: Grounds for reconciliation?* SEI Working Paper No. 99. Brighton: Sussex European Institute.

McKeachie, W. J. (1986). Teaching Tips: A Guidebook for the Beginning College Instructor. Lexington, Mass.: D.C. Heath & Company.

McCarthy, M. M. (2014). 'The Role of Games and Simulations to Teach Abstract Concepts of Anarchy, Cooperation, and Conflict in World Politics'. *Journal of Political Science Education*, 10(4): 400-413. DOI: https://doi.org/10.1080/15512169.2014.947417.

Parker, J. and M. Wyman (2012). *The State of the Discipline in Politics Courses: A Benchmarking Survey of Undergraduate Curriculum and Assessment in Politics and International Relations*. Birmingham: C-SAP.

QAA (2015). Subject Benchmark Statement: Politics and International Relations 2015. London: QAA. Online: http://www.qaa.ac.uk/en/Publications/Documents/SBS-politics-15.pdf [accessed 22 May 2018].

Raymond, C. (2010). 'Do role-playing simulations generate measurable and meaningful outcomes? A simulation's effect on exam scores and teaching evaluations'. *International Studies Perspectives*, 11: 51–60. DOI: https://doi.org/10.1111/j.1528-3585.2009.00392.x.

Raymond C. and S. Usherwood (2013). 'Assessment in simulations'. *Journal of Political Science Education*, 9(2): 157-167. DOI: https://doi.org/10.1007/978-3-319-74147-5_9.

Rich, J. (2012). 'Five reasons that UK universities cannot do outreach on their own'. *The Guardian Higher Education Network*. Online: https://www.theguardian.com/higher-education-network/blog/2012/sep/24/university-school-outreach-support-partners [accessed 22 May 2018].

Rodgers, Y. V. D. M. (1996). 'A role-playing exercise for development and international economics courses'. *The Journal of Economic Education*, 27(3): 217-223. DOI: 10.1080/00220485.1996.10844910.

Schiefele, U., A. Krapp and A. Winteler (1992). 'Interest as a Predictor of Academic Achievement: A Meta-Analysis of Research'. In K. A. Renninger, S. Hidi and A. Krapp (eds), *The Role of Interest in Learning and Development*. Hillsdale, NJ: Lawrence Erlbaum Associates: 183–212.

Schnurr, M. A., E. M. De Santo and A. D. Green (2014). 'What do students learn from a role-play simulation of an international negotiation?' *Journal of Geography in Higher Education*, 38(3): 401-414. DOI: 10.1080/03098265.2014.933789.

Shaw, C. (2015, March 11). 'Unloved and sidelined: why are social sciences neglected by politicians?'. *The Guardian*. Online: https://www.theguardian.com/higher-education-network/2015/mar/11/unloved-and-sidelined-why-are-social-sciences-neglected-by-politicians [accessed 22 May 2018].

Shellman, S. M. and K. Turan (2006). 'Do simulations enhance student learning? An empirical evaluation of an IR simulation'. *Journal of Political Science Education*, 2(1): 19-32.

Smith, E. T. and M. A. Boyer (1996). 'Designing in-class simulations'. *PS: Political Science and Politics*, 29(4): 690-694.

Smith, M. (2002). *European Studies Programmes in the UK*. Report produced for the The LLAS Centre for Languages, Linguistics and Area Studies. Online: https://www.llas.ac.uk/resources/gpg/94 [accessed 22 May 2018].

Smith, M. L. (2003). 'Creating a new space: UK European Studies programmes at the Crossroads'. *Journal of Contemporary European Studies*, 11(1): 21-34.

Smith, E. S. (2012). 'Incorporating sustainability into an American government course: The problems, the progress, the promise'. *Journal of Political Science Education*, 8: 20–34.

Sobisch, A., Scherpereel, J., Loedel, P., Van Dyke, G. J. & Clark, N. (2018). The Costs and Benefits of Organizing a Multi-institutional Simulation on the European Union. In *Simulations of Decision-Making as Active Learning Tools* (pp. 21-34). Springer, Cham.

UACES. (2019). 'About the Association'. UACES website. Online: https://www.uaces.org/about/ [accessed 05 January 2019].

Usherwood, S. (2016). *Teaching simulation game design: A model, tested in the field*. Conference paper presented to the American Political Studies Association Learning and Teaching Conference 12-14 February 2016, Portland.

Vermunt, J. and Y. Vermetten (2004). 'Patterns in student learning: Relationships between learning strategies, conceptions of learning, and learning orientations'. *Educational Psychology Review*, 16(4): 359-384.

Zaino, J. S. and T. Mulligan (2009). 'Learning opportunities in a department-wide crisis simulation: Bridging the international/national divide'. *PS Political Science and Politics*, 42(3): 537-542.