

LSE Simulations: A design guide



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1. Introduction

Since 2019, the LSE Eden Centre for Education Enhancement has been collaborating with teachers based in LSE departments to develop a process and a set of resources that supports colleagues within the institution and across the sector to embed simulation-based activities into their courses.

Underpinning the development of this initiative has been the principle that simulations provide opportunities for authentic learning. We have designed teaching and learning activities that involve students in tasks that mirror aspects of real-world contexts, and which have the potential to be both personally and culturally relevant.

Personal relevance enables learners to connect new information to their lives and worldviews, while cultural relevance reflects the “ordinary practices” of the academic discipline (Brown, Collins, & Duguid, 1988, p. 34), teaching students to think as practitioners within their field (Meyers & Nulty, 2009). **Julia Hayden Galindo, Harvard Graduate School of Education**

Furthermore, the initiative is informed by the argument that the curriculum in higher education should be research-based. **Fung (2017 p. 20)** argues that “... students should engage in activities associated with research and thereby develop their abilities to think like researchers, both in groups and independently”.

Simulations help make research skills feel more relevant to students by connecting academic research methods with real-world problem-solving. While case studies and problem-based learning show students real issues and ask them to apply what they’ve learned, simulations take it further—they let students actually step into the shoes of professionals and organisations.

How to use this guide

This guide is based around six case studies of LSE simulations all of which have been designed using similar processes. These case studies are outlined in Section 2.

They are listed in the order in which they were designed and delivered. The design of each of the simulations was informed by those designed previously, and the designers had access to the resources used in the previous simulations. It was this practice sharing and adapting of resources that enabled the design process to be refined.

Sections 3 – 6 outline the key questions that have underpinned the design at each stage of the process, and you can use these questions to guide your own design. Resources from the case studies are used to illustrate the outcomes of each stage.

2. The case studies

This section includes outlines of each of the six case studies. This section begins, however, with the questions that framed initial discussions between simulation designers. These questions provide a useful starting point for design in that they ensure you embed the simulation in the learning context you aim to enhance.

Design questions

- What skills/attributes do you want to encourage the students to develop?
- What elements/topics of your course might students benefit from applying to a real-world context?
- How might this process of application deepen the students' understanding and, where relevant, allow them to demonstrate that they meet certain learning outcomes.

Case study 1: **Outbreak of the Vaca virus**

(Dr Clare Wenham, Department of Health Policy)

This simulation activity for the postgraduate course *Global Health Security* recreated governance decisions during an outbreak of the imagined 'Vaca Virus' in the fictional country of 'Esperanza'. Students were assigned to small groups, each representing different stakeholder roles in Esperanza or external organizations. The activity unfolded throughout the day with real-time developments—including vaccine availability, civil unrest, and community resistance—requiring immediate responses from each actor.

To prepare for a full-day activity, which was held during the final week of the course, students familiarised themselves with Esperanza's geographical, social, economic, and political context, as well as the Vaca Virus's symptoms, transmission, treatment, and prevention. Character profiles for their assigned roles were also provided via the course virtual learning environment.

The simulation aimed to bring classroom discussions about outbreaks to life, enabling students to explore how outbreaks unfold—who has access to what information, the impact of misinformation, the difficulty of decision-making, and when decisions diverge from optimal public health advice for political reasons.

Note: The simulation was designed in August/September 2019, and students participated in December 2019—before the COVID-19 pandemic.

Case study 2: **DemRes, City of Drais and micromobility**

(Dr Charlotte Haberstroh, Department of Government)

This simulation activity for the postgraduate course *Policy Advice in Theory and Practice* focused on a social research organisation preparing a bid for a local transport policy tender. Students assumed the roles of policy evaluation professionals at a fictional research organisation (DemRes) producing evidence for policy in the fictional country of Evbaland. A local government (City of Drais) issued an invitation to tender for social research on micromobility. Students were assigned to one of five groups: three research teams, a management team, and an HR administration team.

To prepare for a final activity, which was delivered over two seminar sessions, students read various documents including details about DemRes, the Call for Tender from the City of Drais, and contextual information about the policy evaluation project. All materials were provided via the course virtual learning environment.

The simulation aimed to enable students to apply and deepen their understanding of policy evaluation research methods taught in class, while experiencing the multiple and sometimes conflicting objectives and constraints that shape research for policy advice.

Case study 3: **New Generation Behavioural Science and the Felix Foundation**

(Dr. Miriam Tresh, Department of Psychological and Behavioural Sciences)

This simulation activity for the undergraduate course *Advances in Psychological and Behavioural Science* involved students working as professionals at New Generation Behavioural Science (NGBS), a fictitious not-for-profit consultancy firm, to produce a white paper and presentation addressing a client's (The Felix Foundation) project request. Students work in small groups, each including the same roles: two research analysts, a policy analyst, and a stakeholder liaison.

To prepare for a full-day activity, which took place at the end of the course, students attend an NGBS 'onboarding' workshop where they receive details about the client, stakeholders, and task, with possible projects outlined. Between the workshop and final activity, groups meet to complete research activities that inform their white paper. The activities are supported via a project book accessed through the course virtual learning environment.

The simulation aimed to enable students to examine the process of integrating theory into policy, including exploring how such organisations work and the professional roles available.

Case study 4: **LSE Congress**

(Dr Jenni Carr and Eoin Meade, Eden Centre for Education Enhancement)

This simulation activity was an extra-curricular activity open to all students at LSE. To prepare for the simulation students explore how LSE's research can contribute to progress towards the UN 2030 Agenda for Sustainable Development. During the first two terms, student teams explore research within their departments and link it to the UN Sustainable Development Goals (SDGs). Teams then narrow their focus to the two SDGs where they believe their department's research can make the greatest contribution. Each team produces an 'advance submission' for the LSE Congress summit, a full-day activity held at the end of the second term. The advance submission consists of a research poster and a video explaining their rationale for choosing particular SDGs and their department's potential contribution to SDG progress.

Via a virtual learning environment, students receive resources including worksheets and guidance to scaffold their activity. Each team is allocated a mentor who guides students through activities and supports their work during in-person events. Teams interact with their mentor through a forum on the virtual learning environment and may request their attendance at team meetings, whether online or in-person.

The simulation aims to provide students with opportunities to engage with the principles underpinning the **LSE 2030 strategy** specifically "we will equip our students with the skills, knowledge and confidence to be critical investigators, confident entrepreneurs and culturally aware agents of change".

Case study 5: **Wellbeing for policy**

(Dr. Christian Krekel, Department of Psychological and Behavioural Sciences)

This simulation activity for the postgraduate course *Wellbeing for Policy* involved students working in different roles for fictitious policy consulting companies to address a real policy issue from a UK Government department. The policy issue and government department change each year. Most recently, students were tasked by the UK Ministry of Housing, Communities & Local Government (MHCLG) to reappraise the New Deal for Communities from a wellbeing perspective, putting into practice HM Treasury's Green Book Supplementary Guidance on Wellbeing.

At the start of the course, students are randomly allocated to fictitious wellbeing policy consulting companies and to different roles within these companies. Throughout the course, students learn about the main concepts and tools of wellbeing for policy-making, with a focus on applicability across all sectors (government, business, and NGOs).

Students present their final policy appraisals (cost-benefit and cost-effectiveness analyses) to a real audience of UK civil servants and policy-makers.

The simulation aims to provide students with an opportunity to apply knowledge and understanding of key concepts and theories in a setting that is as realistic as possible within a university environment.

Case study 6: **Museum of the future**

(Dr Leili Sreberny-Mohammadi and Moa Jegnell, Department of Sociology)

This simulation activity for the undergraduate course *Material Culture and Everyday Life* involved students collectively imagining the museum of the future.

Working in groups students had to research an allocated object and provide a rationale for its inclusion in the museum, demonstrating their understanding of a particular theoretical approach to the study of material culture. The students also had to think about how the object would be displayed in the museum.

During a special event, which was held towards the end of the course, each group had to 'pitch' their object to a fictitious museum board and argue for its inclusion in the museum. The museum board included the course convenor, a curator from LSE Archives and a representative from the Eden Centre.

The aim of this simulation was to support students to consider the importance and centrality of material culture within a narrative of technological development, and sociopolitical conditions of an object's production, use and meaning.

3. Scenarios

A scenario is a student-facing explanation of the purpose of the simulation and the context and nature of the tasks involved. Thinking back to the definition of authentic learning discussed in the introduction to this guide, the scenario creates the ‘real world’ aspects in which students will immerse themselves.

Articulating the scenario early in the design process helps you focus on other key aspects—role-playing, preparation, and structure/delivery. You may need to revisit the scenario as the design develops, but this groundwork clarifies your conceptualisation of the simulation.

This section begins with questions that framed the initial scenario design, followed by examples from each case study.

Design questions

- What types of work (paid or unpaid) might your students do in the future?
Try and include any work that may not be obvious choices.
- What types of organisations might they work for/with?
Try and include any organisations that may not be obvious choices
- What processes/events/tasks might they have to engage with?
- How might they draw on what they are learning in the classroom now in these other contexts?
- What logistical/practical issues do you need to consider?
 - Time available for preparation and for the event?
 - Do you need to access additional settings/venues?
 - Resources that need to be generated?
 - Support needed?

Case study 1: **Outbreak of the Vaca virus**

In Esperanza there is an influenza outbreak. The primary location of reported cases are in Nivea.

- May: initial reports of mass culling of cattle stock after a mysterious affliction leads livestock to bleed from orifices and collapse.
- Early June: 40 human cases of an influenza outbreak in Esperanza are reported.
- Late June: 1000 human cases are reported of the influenza outbreak. The influenza outbreak is reported as the Vaca Virus.
- A government spokesperson reports that there are 200 deaths but media reports speculate that there have been 800 deaths from the Vaca Virus.
- The WHO requests an update on the situation.
- Esperanza refuses to cooperate with international bodies and refuses to send samples of the Vaca Virus.

Case study 2: **DemRes, City of Draïs and micromobility**

DemRes is a social research not-for-profit organisation in Evbaland. Evbaland is a medium-sized advanced capitalist democracy. DemRes was founded in 1964 and is a registered charity. DemRes's charitable objective is to 'advance public knowledge and education through social research'.

DemRes's strategic goal is to become the place that people go to in order to understand our society. In the current context of political polarisation, DemRes strives to be the non-partisan voice at the heart of debates over the future direction of the country. In working towards this goal DemRes is focused on further methodological innovation, scaling up its outreach activities, web development and improving the accessibility and functionality of its data storage and building new relationships with a more diverse client base. This will require an increased operating budget so DemRes is looking to take on more projects of moderate to medium funding in order to garner more funds whilst maintaining its current organisational structure. To this end, DemRes is willing to expand and consider applying for projects that do not fit the profile of its usual clientele.

Case study 3: **New Generation Behavioural Science and the Felix Foundation**

Next Generation Behavioural Science has been commissioned by a major global philanthropy to write a number of white papers on the psychological and behavioural underpinnings of some of the major challenges of the 21st century. The board of the agency has identified seven key priority areas that they wish to influence. For each topic, they wish to understand the scale of the issue globally, the psychological and behavioural aspects of the problem and the relevant policy agencies and stakeholders they should engage with globally on these issues. These are global projects, but you are not required to provide exhaustive analysis of every country. Instead, the reports should reflect overall broad global policy issues and how they might differ across different contexts.

Case study 4: **LSE Congress**

The EASG (**Education and Academia Stakeholder Group UN SDG**) has urged top universities to contribute to its engagement to the **High-Level Political Forum (HLPF) 2025**. Participants will be selected based on their capacity to produce research for policy impact. LSE Congress is invited to participate in the stakeholder group with a team of student delegates. This is an opportunity for LSE to contribute its expertise to the world's most important social, economic, and environmental issues. This is an opportunity for you to develop your skills and gain experience in evidence-based advocacy for global problems.

Case study 5: **Wellbeing for policy**

Our student consulting programme brings together university students and policy-makers to work on some of the most challenging policy issues faced by UK Government departments and agencies. Our clients rely on us to help them with these issues across the policy-making process, ranging from developing and appraising policy options to monitoring and evaluating policy outcomes. As part of the student consulting programme, you will be leveraging wellbeing theories and frameworks, empirical evidence on the causes and consequences of wellbeing, and state-of-the-art tools for wellbeing policy analysis to help our clients make better policy decisions and create impact that truly matters to citizens.

Case study 6: **Museum of the future**

The Museum of the Future is a museum collection devoted to the exploration of present and future material culture. Our goal is to collect and curate objects that speak to the complexities of 21st-century society. The collection approaches the social, technological, and cultural shifts in our current era through ordinary and unusual objects. As such, our collection encompasses both the mundane and the revolutionary stories of objects, chosen not only to provide insight into the present, but for their relevance into the future. We now invite your expertise in proposing an object for the collection that furthers this mission. Therefore, we, the Acquisition Committee at The Museum of the Future, would like to invite you as curators to present an artefact, object, or digital material that captures a certain aspect of 21st-century society and its future significance

4. Role playing

Another key aspect of design that helps the students make connections between the simulation and real-world contexts are the roles that they will adopt. It is important that the students can move outside their usual position of 'student'.

This section begins with questions that framed the initial design of the roles, followed by examples from selected case studies that illustrate different approaches. To explore the different approaches further you can access the resources that were used in the actual simulations.

Design questions

- How will the roles be structured?
 - multiple teams with students playing different roles within the teams
 - multiple teams with each team member playing the same role
 - all students playing the same roles
- What information would the students need to adopt the roles?
And how and when will they access that information?
- How will the roles be allocated?
- What role are you playing?
- Do you need colleagues to play additional roles?

The resources that illustrate these different approaches can be accessed via the 'Resources' section [of the LSE Simulations website](#)



Case study 1:

Outbreak of the Vaca virus

(Multiple teams with each team member playing the same role)

This simulation recreated the governance decisions of an outbreak of 'Vaca Virus' in the country of 'Esperanza' Students were allocated to small groups, each taking on a different role as stakeholder groups in either Esperanza or in external organisations. The selected examples in this resource illustrate the range of different profiles that were created – Government organisations, lobby groups, political parties, for-profit organisations (all of which had to be imagined) and organisations that do exist and would normally play a role during a pandemic.

 Case study 2:
DemRes, City of Drais and micromobility

(Multiple teams with each team member playing the same role)

In this simulation students play the role of policy evaluation professionals at a fictional research organisation (DemRes) producing evidence for policy in the fictional Evbaland. This resource is a welcome letter that provided students with an overview of the organisation and the roles within the policy evaluation units.

 Case Study 3:
New Generation Behavioural Science and the Felix Foundation

(Multiple teams with students playing different roles within the teams)

In this simulation students worked in small groups. Each group included the same roles (two research analysts, a policy analyst and stakeholder liaison). The job descriptions in this resource provided the students with an overview of the role they would play.

Roles in this simulation that were played by non-students were stakeholders from the Felix Foundation (played by PhD students) and members of the NGBS board (played by faculty members).

 Case Study 5:
Wellbeing for Policy

(Multiple teams with students playing different roles within the teams)

In this simulation students are allocated to (fictitious) policy consulting companies, and within these, to different roles. This resource is a letter of appointment that illustrates how what the roles entail is communicated to students.

UK civil servants and policymakers played roles in this simulation in that they set the task for students and provided an audience for students' presentations of their final policy appraisals.

 Case Study 6:
Museum of the Future

(All students playing the same role)

In this simulation students play the role of curator/researcher for the museum's next round of acquisitions. This letter of appointment outlines what is involved in playing this role.

Roles in this simulation that were played by non-students were members of the museum board.

5. Gameplay

The term 'gameplay' includes the simulation's objectives and rules that shape the running of the simulation. As such, gameplay includes not only the event that might be held at the conclusion of the simulation, but the preparation needed to make that event useful, smooth-running and, hopefully, enjoyable for all involved!

This section is divided into two subsections – gameplay preparation and gameplay event. Each subsection begins with questions that framed the initial design of this aspect of the simulation, followed by examples from selected case studies. To explore the different examples further you can access the resources that were used in the actual simulations via the 'Resources' section [of the LSE Simulations website](#).

5.1 Design questions – Gameplay preparation

- What information will need to be available to students in advance?
- How will that information be communicated to the students?
- How much time will the students need to prepare adequately?



Case Study 1:

Outbreak of the Vaca virus

This simulation recreated the governance decisions of an outbreak of 'Vaca Virus' in the country of 'Esperanza'. To prepare for the simulation students had to familiarise themselves with the geographical, social, economic and political background of Esperanza and the symptoms, transmission, treatment and prevention of the Vaca Virus. This resource contains illustrative extracts from that background information.



Case study 2:

DemRes, City of Drais and micromobility

In this simulation students play the role of policy evaluation professionals at a fictional research organisation (DemRes) producing evidence for policy in the fictional Evbaland. To prepare for the simulation students had to read and discuss the contextual information on City of Drais tender opportunity and the tender document. This resource contains those documents.



Case study 3:

New Generation Behavioural Science and the Felix Foundation

This simulation involves students working, in their roles as professionals at New Generation Behavioural Science (NGBS), a fictitious not-for-profit consultancy firm, to produce a white paper and presentation that addresses a client's (The Felix Foundation) project request. To prepare for the simulation students attend an NGBS 'onboarding' workshop where they are given further details of the client and stakeholders and the task and possible projects are outlined. This resource includes the slides from this workshop.



Case Study 5:

Wellbeing for Policy

In this simulation, which runs across the course, students are randomly allocated to (fictitious) policy consulting companies, and within these, randomly to different roles. They are then given a real policy issue from a UK Government department to work on together as a team, and then present their final policy appraisals (cost benefit and cost-effectiveness analyses) to a real audience of UK civil servants and policy-makers. This resource includes letters that illustrate how the students are informed of the tasks they will be completing. Further guidance is provided during in-class sessions.



Case Study 6:

Museum of the Future

In this simulation students play the role of curator/researcher for the museum's next round of acquisitions. To prepare for the simulation students needed to understand the ways in which museums collect, display and interpret the objects. This resource includes a guide to these processes.

5.2 Design questions – Gameplay: the event

- How will you make the purpose of the event (learning outcomes) clear to students.
- How will you ensure that the students know what to do and when to do it?
- Is there a final output or artefact that needs to be generated? If so, what does it look like?
- How will you check understanding and progress?
- Will there be a 'surprise' element?

Before moving on to related resources, a note on the role of 'surprise' within a simulation. As one purpose of a simulation is to mirror real-world contexts, aspects of gameplay that emerge only during the event help create that context. However, this aspect needs careful consideration. You must ensure students have the knowledge and understanding to respond, which can be achieved by providing adequate background information about their roles and/or gameplay preparation. When introducing any 'surprise' element, make explicit how students' prior work relates to the new tasks.

Case studies 1 and 3 both used play cards—cards handed to students containing new information requiring a response—to provide the surprise element. Students knew play cards would be used but not what information they would contain.

Case studies 2 and 3 both included an intervention during the event. In case study 2, participants were informed that information relating to the tender had accidentally been omitted from their briefing. In case study 3, participants were told their clients had requested additional elements be added to the white paper they were producing.

Case study 4 included the most significant surprise element. Although students' work over the two preceding terms prepared them for the event, they were unaware of a new scenario to be presented at the start of the day or the tasks they would need to complete in response. Notably, LSE Congress was an extra-curricular activity and therefore the outcomes were 'low stakes' for students. As such it was felt that a more significant level of surprise was worth introducing in order to create a context that more closely mirrored a real-world environment.

 Case study 1:
Outbreak of the Vaca virus

This was a one-day simulation activity on the course Global Health Security, which recreated the governance decisions of an outbreak of 'Vaca Virus' in the country of 'Esperanza'. The activity unfolded over the course of the day with new information, such as the development of vaccines, civil unrest and community resistance, which each actor had to react to in real time. This resource includes an overview of the schedule followed by examples of play cards that were handed to students containing new information to which they had to respond.

 Case study 2:
DemRes, City of Drais and micromobility

In this simulation students play the role of policy evaluation professionals at a fictional research organisation (DemRes), which has received an invitation to tender for a policy evaluation project. The DemRes Policy Evaluation Unit has to meet to decide whether its expertise fits the project, and which research group to select to prepare the response.

 Case study 3:
New Generation Behavioural Science and the Felix Foundation

This simulation involves students working, in their roles as professionals at New Generation Behavioural Science (NGBS), a fictitious not-for-profit consultancy firm, to produce a White Paper and presentation that addresses a client's (The Felix Foundation) project request. Included in this resource you will find: the schedule for the simulation event; a template for the structure of the White Paper students need to develop; and examples of play cards that are handed to the students during the day, which they need to respond to in their presentation/ White Paper

 Case study 4:
LSE Congress

In this simulation students are invited to explore how LSE's research can contribute to the progress towards the UN 2030 Agenda for Sustainable Development. The simulation culminates in the LSE Congress summit, which is an all-day event. In preparation for the summit students have been working in departmental teams. At the summit itself they are allocated to transdisciplinary coalitions, and they are given a new scenario to which they need to respond. This resource includes the new scenario and the worksheets given to students to help them complete the new tasks.

6. Assessment

There are several ways to link assessment to simulations. The most difficult to operationalise is assessing what happens during a gameplay event, similar to assessing class participation. Given the number of different tasks and activities students complete, a large number of observers would be required to assess rigorously and fairly. Assessing activity within an event also creates a ‘high-stakes’ environment, which might discourage students from responding creatively and taking risks.

The two most common assessment methods used in the case studies are:

- Presentations/pitches generated as a result of gameplay (Case studies 3, 4, 5 and 6)
- Writing tasks requiring students to reflect on their experiences during the simulation and make explicit links to course materials (Case studies 1, 3 and 5)

In Case studies 4 and 5, both methods are used to allow for group and individual assessment, e.g. a group presentation combined with an individual writing task.

It may also be useful to consider how simulations, even if not formally assessed, can support students in completing other assessment tasks. For example, in case study 2 students work in teams based on three different research approaches—cost-benefit analysis (CBA), randomised controlled trials (RCT), and behavioural insights for policy/nudge (BI). The summative assessment for the course was a written examination requiring them to demonstrate their understanding of these approaches by drawing on them appropriately in their answers.

When designing any simulation-related assessment, return to the design questions posed at the start of Section 2 and adapt these to guide your assessment design.

Design questions

In what ways can the assessment method/format:

- enable the students to demonstrate the skills/attributes they have developed?
- provide opportunities for the students to demonstrate their understanding of how key concepts/theories can be applied to a real-world context?
- enable the students to demonstrate that they have met certain learning outcomes?

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