

Methods for Change

Playing Games as Method

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Playing Games as Method



Used to both collect and communicate data, games, or playing games, is becoming an increasingly popular social science research method. Games can be used to bring into view often overlooked aspects of the environment, to bring together different stakeholders, and to understand complicated concepts and processes, amongst other things. The informality and playfulness of games can help to breakdown conventional communication barriers, encouraging participants to interact freely to discuss what might otherwise be complicated or sensitive topics. Games, particularly fun ones, can draw participants in and get them to think about subjects which might not usually be understood as particularly engaging, such as infrastructure. They can cultivate a sense of curiosity and wonder into what might otherwise be overlooked aspects of life and help to create an emotional connection and response amongst participants which may have long lasting effects.



How does Playing Games as Method create or contribute to change?

Change happens with this method by encouraging people to think differently about problems. Change can happen at all stages of the process of using Game as Method: design, play and the discussion of findings. The degree of change will vary depending on the purpose the game is used for. Change might occur through the process of bringing together different stakeholders to talk about a topic or theme and providing an engaging platform for sharing different opinions and perspectives. Playing a game may shape or alter the way a group of people or an individual thinks about or relates to a particular thing. Often the playful nature of games, which can sometimes involve presenting different and other-worldly scenarios to participants, can move participants to change conventional ways of thinking and making sense of the world, prompting them to see the world from a different perspective. For example, playing games might encourage participants to envisage alternate futures or come up with creative solutions to everyday challenges. Such solutions may instigate change in a range of ways. For example, they may be shared with interested stakeholders who might use them to inform the way a product or place is designed.

What ideas or concepts influence Playing Games as Method?

There is a long history of using games as a method in the sciences and this is often referred to as gamification. Gamification is the application of game-design elements and game principles (such as scoring, competition with others, rules of play) in what have traditionally not been thought of as 'gaming' contexts. For example, serious games, such as games built from Agent Based Modelling are used to model and develop different scenarios, and are popular with policy makers and researchers. Games can help researchers to 'tell a story' or develop a narrative about an often 'hidden' experience with or aspect of infrastructure. Playing Games is all about engaging, inspiring, collaborating, sharing and interacting through participation. Often, the hands-on approach cultivated through Playing Games allows people to better internalise content or to engage on a deeper level with a scenario, environment or concept. Games can be predefined, set around particular questions or scenario cards. Equally, they can evolve around a loose set of instructions, giving participants greater freedom to decide how they interact with a place.



Why might I want to Play Games as a Method?

- Games can be used to introduce different playful dynamics into everyday thinking. This can involve playing games as an icebreaker, as part of a team building exercise, or in teaching. They are particularly useful for groups of multiple stakeholders coming from very different perspectives such as policy makers, citizens, business, and students because they encourage different perspectives to play out around a particular theme.
- Games can encourage people to think and interact in different ways. They do this by getting participants to step into a specific narrative or scenario and imagine or be mindful of particular conditions and experiences that they could have.
- Games are a fun way to engage a range of people in decision making processes, bringing different values to a field or theme of discussion.
- Designing a game could present an opportunity for co-design with a partner or stakeholder. Co-designing a game in this way may enhance connections and collaborations between different stakeholders and improve understanding of the issues for both the researcher and the participants. They can then be used in collaboration with different organisations as part of a programme of learning and engagement.
- Games can be a great method to get people to discuss and understand complex systems and concepts. They do this by giving an opportunity to learn through doing and by providing practical examples and illustrations of complex and more abstract processes and ideas.
- Games can be good for positive publicity and can help engage people with environments and ideas which may conventionally fall outside the scope of public interest. Infrastructure is a perfect example of an issue which becomes visible and enters the public interest only when it fails.

Step by step guide to Playing Games as Method:

- 1. Identify potential participants to play the game.** Depending on the purpose of the game, the pool of participants might be intentionally similar or diverse. Participants might include different businesses, policymakers or organisations who have a stake in the topic you are discussing. They might also be the general public, or a group of people who live in a certain area. The participants who are involved in the game will depend on the purpose of the game you are playing and what you intend to better understand or find out about.

It can be very hard to navigate a large group of people playing games so good facilitation is key. If you are hosting an event involving a game, make sure you have a partner who is well versed in the purpose of the game to help you and keep things on track. Take time to play the game or 'walk through' the game with any facilitators to make sure that they fully understand the what, the how and the why. Take time to clearly explain the purpose of the game to participants before you begin.



Step by step guide to Playing Games as Method:

It is important to design the game in an engaging way to make sure even participants who have no prior or specific interest in the subject being discussed will be able to join and stay engaged throughout the game. It is also best if your participants are involved in the game by choice.

2. Identify a suitable space for the game.

This could be a unique single place or could include multiple locations and asking participants to walk or run through from one area to another. The space for the game is an important dimension to how participants experience the game and engage with it. Asking participants to move through familiar spaces looking for specific things (themes, places, objects, trees, sculptures) enables them to change their perceptions and 'see' things that are usually hidden in everyday interactions.

3. Set the purpose of playing the game. This step is usually negotiated alongside steps 1 and 2. Lack of access to suitable spaces for playing the game could lead to redefining the game's purpose, or the intended participants, for example. In a game designed to engage infrastructure policy makers with the specific experiences of people who are on the periphery of policy, this method would work best where participants are taken out of their comfort zone, which could include offices and conference venues, and locating the game somewhere less familiar.

4. Play the game. How the game unfolds will depend on its purpose, available spaces and the audience for the game. Games can be played successfully with up to 40 participants, however, they are most successful where for at least part of the activity they involve working in small groups of five to eight people. Larger groups are harder to engage with and move through space. For example, in one game for the Infrastructure Project discussed below it took 10 people over 30 minutes to climb out of an overflow underground chamber through a very steep and narrow set of stairs. Had researchers known that the exit would take this long they would have split the group in half. Games which put people into smaller, separate groups to focus on specific issues or spaces and then bring them together to interact with each other and debrief are well accepted by participants, even if they tend to take longer.

Each group needs at least one facilitator who understands all aspects of the game and its purpose. If relying on facilitators to work with multiple groups it is important to have a formal script with key details such as timings for reference. Games can take multiple forms, with varying degrees of input from facilitators: from guided group walks and tours to virtual guides completed in participants' own time, with thoughts and experiences recorded on mobile phones and notes then uploaded on a shared platform.



Step by step guide to Playing Games as Method:

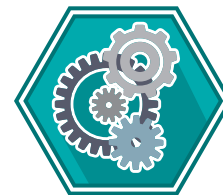
5. Identify break-out groups. Remember to be sensitive to the different needs of participants. This might involve considering what different participants might want to get out of their time spent playing the game, or more practically considering the different physiological abilities of participants. If your game involves walking around outside for a long period of time, remember to ask participants to wear appropriate clothing. Be sure to make clear whether or not the game is suitable for those with impaired mobility, sight or hearing. Are there ways you could diversify the game to make it more inclusive? This consideration might involve working with industry and organisations who can help you to set boundaries for health and safety.

6. Allow participants to capture different aspects in ways which are meaningful to them. This can be easily achieved through incorporating active ways of capturing and engaging different parts of the game, such as taking photos, short videos, voice messages, drawings or collecting objects and artefacts such as leaves, stones or brochures. Participants can be asked to photograph something on their phones based around a theme they are following as they are moving through a place.

7. Provide an opportunity for the game participants to debrief. Reflecting on and sharing experiences are important parts of the process of learning and engagement within the game, and sufficient time should be allocated to these elements. This can be done by bringing the participants back together into one group and facilitating a discussion around a theme or set of questions (e.g. ask them to convince other groups of a particular point of view). Allow people to come to their own conclusions and opinions.

8. End the game, until next time. Games can be a useful means of engaging people on a specific topic and specific objects, which might otherwise be considered hard to engage. They can also be powerful ways of collecting important data about people's opinions, interests, and drivers for change. As such, they can lead to meaningful change by generating impact that continues beyond the game itself. It is important, as a researcher, to share with participants what you and your team have learned from the experience and how you intend to use it.

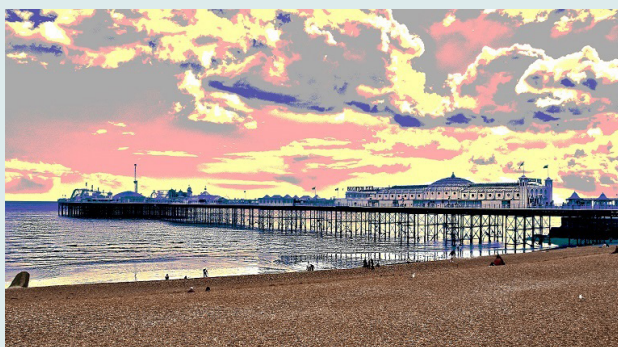
It is useful to allow people different ways of leaving feedback. These could include asking people to drop the pens/maps/badges in one of two buckets (one for feeling overall positive about taking part and another for people left with negative impression), to tweet their feedback or to draw or write what they would change on the back of maps or sheets of paper stuck to the door through which they are leaving.



An example of Playing Games as Method in social science research

The 'Infrastructure game'

Researcher: Dr Ralitsa Hiteva, Science Policy Research Unit, University of Sussex



Poster of Brighton for the Infrastructure Game, September 2017

The infrastructure game was designed for, and played, as part of the British Science Festival in Brighton. The purpose of this game was to help the general public to understand the complexity of infrastructure interdependencies. The game was used to convey an understanding of complex processes and systems that underpin the way we live, but which are often overlooked and invisible in everyday life, unless something breaks or goes wrong.

The participants included 36 people from the general public who were living in or visiting Brighton during the festival weekend, between the ages of 19 and 76. Participants were put into three equal groups based on the maximum number of people that were allowed to be in the underground overflow chamber operated by Southern Water which is one of the key spaces for interacting with water infrastructure in Brighton. Game participants

were asked to express preference for one of three types of infrastructure: water, energy or digital and based mostly on their preferences were allocated into three groups, which were given three separate sets of instructions and starting points for the game.

Each group followed a route which involved learning about the history and future of one specific type of infrastructure. The water group went through an underground overflow chamber, the energy group walked through the Brighton seafront learning about gas and electricity lighting, and the digital group visited a 5G test area. The game was set up to engage and appeal to people's emotions. The scene was set in a post-apocalyptic environment where resources were scarce and survivors had to make decisions about what infrastructure they should develop. Connecting to the game on an emotional level draws participants into the narrative and enhances their involvement and connectedness with the game.

After starting at three different points and covering three very different routes the groups were then brought together in a large room where they were asked to prepare convincing arguments and win votes from other groups to invest in their chosen infrastructure. The group which converted the largest number of players was to be the winner. The groups attempted to convince each other in the merits of investing in either water, energy or



digital infrastructure. Asking different groups to negotiate and decide between them resulted in them debating and negotiating which infrastructure was integral. One group came out on top. At this point I introduced the groups to the concept of infrastructure interdependence and explained that we do not need to invest only in energy infrastructure in order to solve energy problems. The groups understood that the right answer was not one type of infrastructure or another and that thinking across interdependencies can have a significant impact on the environment and resilience. At that point the participants took over the discussion of how this might work in practice and started to imagine what investment in infrastructure could look like in the future.

Although participants in the game were guided throughout every step by the facilitators and the lead researcher, they were given an opportunity to express their vision of the

concept of interdependent infrastructure and how it could be applied to the infrastructure they had just learned about. The whole game took two and a half hours and did not involve any breaks. Participants walked through different spaces in the first hour and spent the rest of the game in a large room. The facilitators for each of the infrastructure groups were representatives of local utility companies which managed the said infrastructure and could provide significant detailed information about it. At the end of the game the lay participants were able to provide their own examples of infrastructure interdependencies that they had observed and/or experienced and were able to discuss the complexities of decision-making about infrastructure, such as what type of infrastructure to prioritise in protecting the environment and why it was important for the general public to be engaged with infrastructure decision-making.

An example of Playing Games as Method in social science research

Using games to explore healthy ageing in urban spaces

Researcher: Dr Ralitsa Hiteva, Science Policy Research Unit, University of Sussex

This game was designed for an infrastructure workshop involving academics and utility companies, and was held in the city of Leeuwarden which at the time was a culture capital of Europe. In designing the game, I was asked to showcase and make use of as much of the city's built environment as possible. The first part of the workshop was dedicated to presentations about healthy aging and

urban space from an academic and planning perspective.

The participants in this game were not older people, but utility providers who were interested in seeing the world from the perspective of an older person. The game involved splitting people into two groups and giving each group a map with places, locations



and objects that they had to find walking through a specific route. Most of the workshop participants had never been to this city before but they took the maps and walked the routes for two hours.

The routes prompted people to experience the built environment from the perspective of an older person. A few were given special assignments, and were told that they had to rest every 10 minutes for five minutes or that they couldn't climb stairs. Others were given a walking stick that they had to carry with them everywhere. Playing the game in character allowed us and the participants to see how some of the everyday assumptions that they use in their work and everyday life were restrictive and exclusionary for elderly people.

Participants were then asked to come back to the workshop venue and tell the group how their character spent the two hours and what they found difficult and useful about the urban spaces that they experienced and saw. During the discussion the game shifted beyond the city in question as people started to draw on examples and anecdotes from their own lives, work, friends, family and neighbours.

Playing the game allowed participants to understand and experience for themselves how different urban spaces had evolved or failed to evolve to suit the needs of an ageing population. The game was useful for me as a researcher as it provided valuable insight into the difference between providing access to a space for elderly people and thinking through how to remake urban spaces to make them suitable for healthy aging. Participants reported that the game was useful to them in better understanding how even mundane aspects of their work might create barriers to elderly people in their daily lives, and that elderly infrastructure services users should be considered throughout the entire supply chain of urban infrastructure, rather than just at the point of consumption.



Where else could Playing Games as Method be used?

Playing Games as Method could be used in many different contexts across a range of different sectors. For example, it could be useful for industrial organisations involved in a variety of infrastructures including transportation systems, sewage and water systems, communication networks or power plants who are interested in generating increased understanding about the work they do amongst the general public, or to understand how different groups relate to, use or experience these infrastructures.

Playing games is also used in [disaster planning](#) by the emergency services. For example, representatives from different emergency services would play a game to imagine the different ways they might respond to an earthquake. They would respond to different scenarios and events thrown in by the facilitators. Similarly to the [Follow The Thing](#) method in which Stephanie Sodero talks about following blood donations to expose the blood infrastructure, Playing Games can be useful for shedding light on processes that are typically unseen, perceived as mundane or even boring.

In this sense, this method could be useful to a range of different organisations or groups involved in providing services such as in healthcare. It could shed light on the use of Green Spaces amongst different groups, the engagement with different environments or the functioning and use of different food networks.

As discussed in the guide on [Digitised Ethnography](#) by Andrea Pia, Games are useful for encouraging diverse groups of people to understand the lived experiences of others that they might not otherwise consider, such as migration processes.

Top tips

1. Remember to adapt your game to suit the audience and the context you are working in. Different audiences have varying capacities to engage with particular topics and technologies. Playing games which unfold within physical space (or multiple spaces) can be restrictive for some participants, such as people with disabilities, mobility difficulties and those with small children. The best way to ensure that the games are as inclusive as possible, is to try them during a dry run using as diverse group of participants as possible. If these are impossible to secure, you can assign certain characteristics to some of the pilot participants (for example, a restriction in height) and ask them to report what they found difficult, impossible and what could work for them instead. Then change the game!
2. Be clear on what the purpose of your game is and communicate this to participants. Ask yourself, is the purpose of this game to shed light on complex problems? Is it to bring different groups of people together to discuss a common theme?
3. Try to work with diverse groups of people. Often, working with people who have different identities (age, gender, ethnicity, sexuality, disability and the like) can elicit interesting discussions.
4. Try not to prescribe too much how the game should unfold or to pre-empt the conclusions the participants might come to. The purpose of this method is discovery.

Playing Games as Method



Further reading

- Changing methods and pathways for engagement with infrastructure services
- Playfuel
- Hastings is on a journey to net zero

To reference: : Hiteva, R. Barron, A., and Pottinger, L. (2021). 'Playing Games as Method' in Barron, A., Browne, A.L., Ehgartner, U., Hall, S.M., Pottinger, L. and Ritson, J. (eds.) *Methods for Change: Impactful social science methodologies for 21st century problems*. Manchester: Aspect and The University of Manchester.



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