538

Towards a Hyper-diverse Town Center

Implementing a game approach for public realm and placemaking of Hackney Central

DR. JIAYI JIN

NORTHUMBRIA UNIVERSITY, UK

ABSTRACT

Games have served as tools for research, design, teaching, and learning processes, the development of the games can be intended to serve a singular or a multimodal purpose. Clark (1970) defined games as "reduced to its formal essence, a game is an activity among two or more independent decision-makers seeking to achieve their objectives in the same limiting context". Here, several important aspects of games are mentioned, especially for games involve multi-players engaged in decision-making towards meeting an objective in a given context. This research is focused on the potential of serious games involving the participation of end-users to meet a design objective by integrating user-generated spatial configurations in urban regeneration strategies in the context of London Hackney Central's neighbourhoods. The significance of participation translates into the context, as the rapid gentrification poses documented threat to existing socio-economic relations, social security, and income generation means for low-income dwellers. The research focuses on developing an innovative method for participatory design with the planners and local residents that allows end-users to layout their preferred spatial configuration following a set of game rules. The game and the play process were demonstrated by using participatory trails. The outcome will be evaluated and presented followed by findings and recommendations for further studies and application.

KEYWORDS

Urban Planning, Game, Partcipatory Design, End users, London Hackney Central

1 INTRODUCTION

Urban regeneration is always seen as an opportunity to improve the environmental and socio-economic performance of cities. Yet, it appears hard to tackle the social challenges with a focus on spatial interventions only. A more participating society and more user involvement could help

to improve the social environment. In theory, an involvement process can contribute to the objectives of the most important stakeholders in urban regeneration projects: the government, users and private developers. Since these potentials in practice are often not achieved, the literature advises to involving users early and intensively in the development process and to develop with flexibility along the process (Christian et al., 2013). However, when projects were implemented, boundaries limit the development options for a private developer and therefore, as well the options to involve users including low-income or vulnerable urban dwellers.

Notwithstanding the sincere attempts of urban planners and city officials, honest discussion and participatory processes rarely go as planned (Specht et al., 2016). Participatory processes have been a predominant theme in both academic debate and practice discourse for the last decades, but urban planners are still often puzzled about how to use them (Voorberg et al., 2017). As Forester already proclaimed in 2006: "Easy to preach but difficult to practice, effective public participation in planning and public management calls for sensitivity and technique, imagination and guts." (Forester, 2006).

A real conversation was hard to spot. On the one hand, the prejudices of the inhabitants who say that "they won't listen to us anyway" and "everything is already decided anyway", and on the other hand the cynical attitude of the urban planners and public officials that "only the sour complainers are coming", "it's just because we have to do this" and "they are only thinking about their own backyards, we are thinking about the common interest and they don't understand" (van der Specht, 2012). A lot of "they" and "we" and little incentive to have a genuine conversation. This research is aimed to build advocacy planning came into place, which demands planners to act as mediators to help stakeholders resolve conflicts and aspire to reach a solution that fits all stakeholders, rather than a winner-takes-it-all approach (Gunton & Day, 2003). The study tries to look beyond the buzzwords of participation and dialogue and searches for an open, fair and transparent conversation, which fits into the daily reality of the design processes of urban planners.

2 A GAME APPROACH FOR PARTICIPATION AND DIALOGUE

To reach the goal of this research - finding an answer to the complex problems in the urban context– it is important to uncover what local people know, feel and dream. This level of knowledge is hard to obtain, as Sanders and Stappers describe in their model of levels of knowledge (Sanders & Stappers, 2008). Explicit knowledge expressed in things we say and do is easily observable, but is only the tip of the iceberg of things we know. In order to find this deeper knowledge, one should put more effort into coming to tacit and latent layers (Sanders & Stappers, 2008). Games can be a tool to provide generative sessions, as games support knowledge co-creation by providing a structure for interaction. The game structure helps the players to be transported to another reality, and with that, game designers "use the game structure to support idea generation, collaboration and interplay using game material, and utilising the game to assign roles for players" (Hannula, 2014).

In this literature study, several reasons for gamification are defined. A few of them are listed below, as they match with earlier stated dialogue enablers or their subconstructs:

1) Games stimulate learning and knowledge sharing (van der Meij, Broerse, & Kupper, 2017). This is the most important listed goal of the tool. Games create a space where the presence of intellectual curiosity and flexibility is manifested (Dewey, 1910; Prawat, 1995) which is a prerequisite for learning.
2) Games generate new ideas and discoveries, an important principle of the dialogue, despite the complex circumstances (Sanders & Stappers, 2008).
3) Games nullify boundaries of time and space and create a free mind. Playful behaviour characterised by being free and profitless of nature (Millonig & Mitgutsch, 2014).
4) Games can provide a space with the absence of dogmatism and prejudices, which links to the enabler for safety (Simkins & Steinkuehler, 2008).
5)

To conclude, the concept of gamification or playfulness is mentioned as an effective learning and reflection tool. As it creates a process which has an intellectually, curious, alert, flexible, inventive and prejudice-free attitude, where new and complex information is easily taken in and where new ideas or knowledge is created.

2.1 Methods

This research has adopted a variety of methods to come to the final urban game prototype. Three prototypes are produced, of which the first two are assessed with test groups and their own evaluation afterwards. The third and final prototype is tested and evaluated more elaborately with the Hackney Council's Streetscape team, advised by East Architecture Landscape Urban Design, who have drawn up the Hackney Central Public Realm Strategy. All tests are reviewed on the focus of 1) main enablers of the game framework, 2) game dynamics and 3) spatial output. The first two prototypes give insights about the use of prototypes with group iterations and reflection, towards a more complete final prototype which is not only to learn about the functioning of the game, but also to generate results for the final spatial design for the regeneration programme of the Hackney Central.

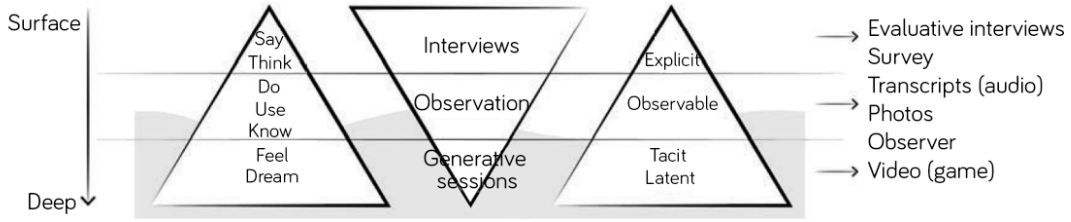

Figure 1: Participatory research with different knowledge levels, adapted from 'Co-creation and the new landscapes of design' by Sanders & Stappers (2008).

During the 3rd prototype, semi-structured interviews and a short survey were conducted and playing the game was taped with audio and video.

2.2 Urban Game Segments

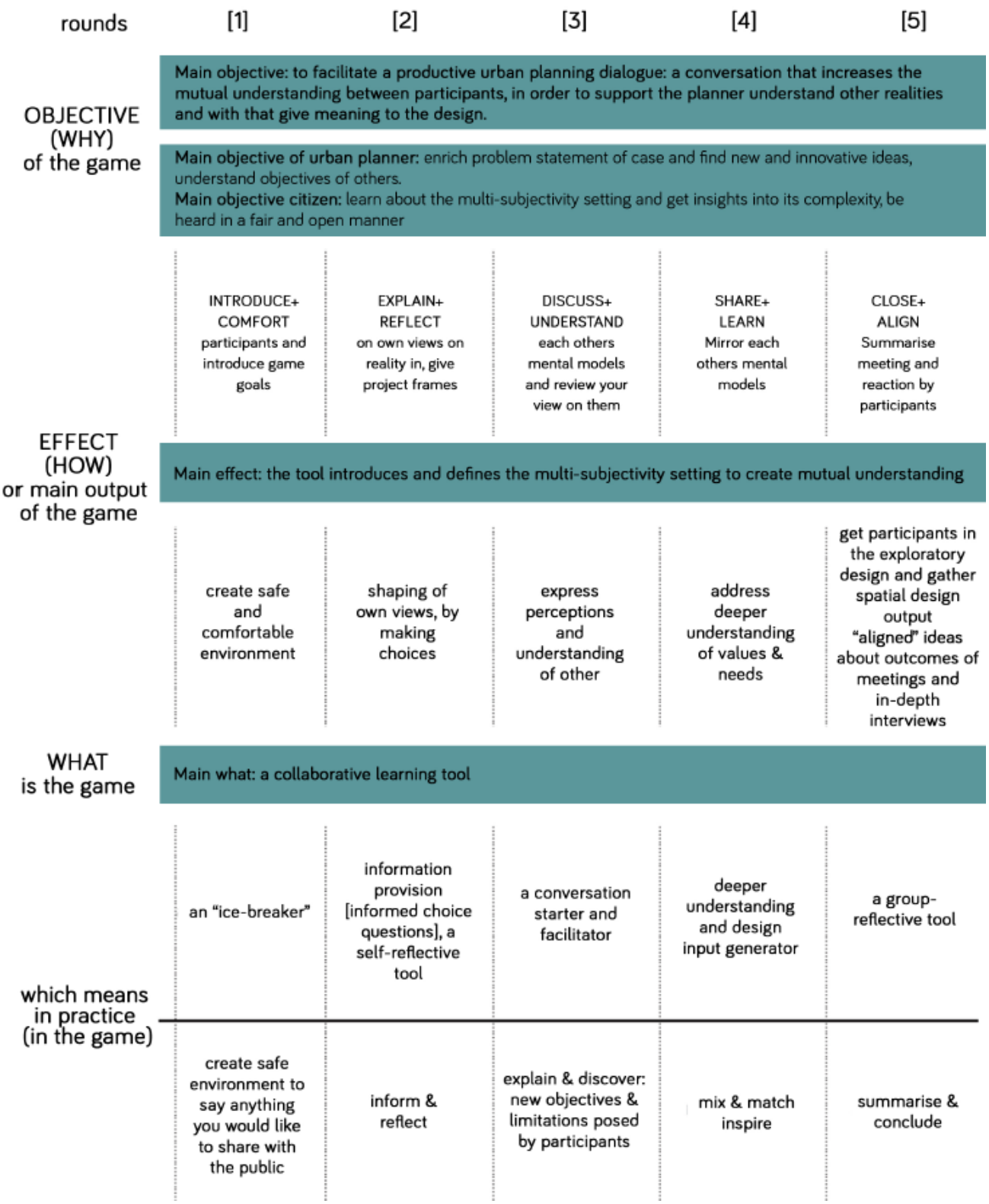

Figure 2: Different segments of this urban game, following 'Why', 'How' and 'What'.

The moments where spatial output was gathered – round 1 and 2 – are fully transcribed to get useful quotes from these conversations. The evaluation afterwards is transcribed as well. Furthermore, photos of the pinned comments and the usage of game elements were made, in order to analyse how participants used all game aspects and to document the outcomes. With all these different validation methods, a comprehensive validation could be made, covering all layers of the knowledge layers of Sanders & Stappers (2008) for the user experience of the place (spatial output = goal of the game), and the two top layers for the user experience of the game (game validation = goal of the research).

3 THE TEST WITH PARTICIPANTS ON HACKNEY CENTRAL

Hackney Central has attracted significant investment in recent years, not least because of its position within the city fringe tech cluster. Creative businesses have grouped around the Mare Street corridor linking Shoreditch and Hackney Central. This has given rise to significant opportunities for employment and housing growth within the area which is recognised in the Mayor's City Fringe Opportunity Area Planning Framework (London Borough of Hackney, 2021). The current masterplan for Hackney Central translates strategic policy objectives of the Hackney Central Area Action Plan into a series of actionable projects on the ground, including public spaces, transport improvements and development opportunities. Here this urban game prototype was adopted with the aim of providing a coordinated design strategy that reflects local aspirations for the area, with new planning ideas to improve the viability of the town centre.

By collaborating with Hackney Council's Streetscape team, the final prototype was tested with real stakeholders of London Hackney Central, Among the attended participants there were two delegates from the municipality, one urban designer and one project manager; one city council member, who also lives in the area; and five local Hackney residents covering mid to low-income dwellers. The game was held at the Pembury Community Centre at 1 Atkins Square, Dalston Lane, which is 5 minutes by foot from Hackney Central Station.

The game session, as detailed in 2.2 (Figure 2), was started with a series of development briefs and area-wide development guidelines adopted as a Supplementary Planning Document (SPD). They set out guidelines for 1) land use, 2) building height and massing, 3) access and servicing, and 4) private and public open space. With the 5 round process, participants take turns to explain what their views are on these four topics with the current urban regeneration plan (Figure 3).

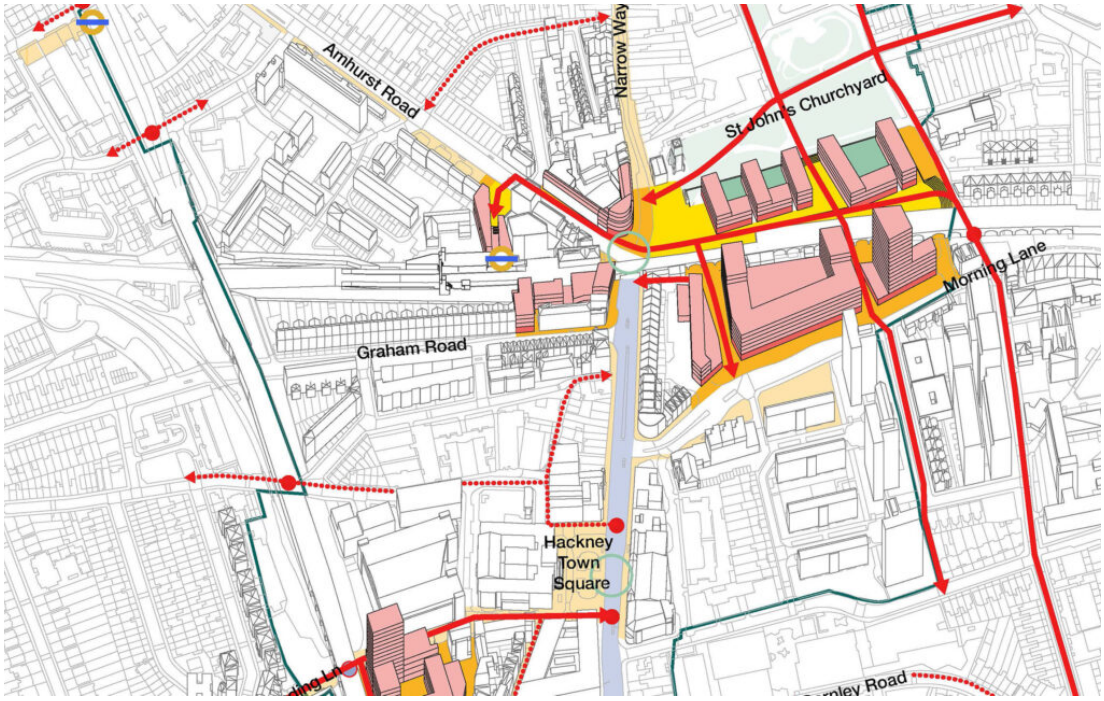

Figure 3: Urban regeneration plan of the study area, Hackney Central, London

Figure 4:: Mapping studies with the dialogue (above) and evaluation (below) during the test.

Here, the focus lies on the process, rather than certain outcomes: as participants speak from their own experiences and views, it is not so much about collaboration (the goal of the game is not to agree or decide upon something together), but more about understanding each other's views, a joint inquiry to deepen why someone says something, a safe place to ask for clarification and encourage the one speaking to elaborate on and explain his utterances. This is done by means of "conversation interruption cards" (Figure 4) as which are framed in a positive way (either adding up to a statement or asking for clarification).

In the game, the urban planner and the municipality in the first round learned about the values and wishes of all the participants with four key topics. The second round went into which problems or opportunities people see when taking their often used routes through the area. During the test rounds of the prototypes, it became evident that round two, grounded in the real context of the case, is of high importance to live up to the pragmatism of the participation.

Participants want to know what they contribute, and solely the first round would be too abstract to see what they are working towards. This resulted in a respectful and open conversation took place where the urban planner and the municipality received many different ideas and input for spatial design. The game facilitated the conversation, which resulted in the facilitator only needing to take part and listen, instead of guiding the conversation. Some side-factors influenced that conversation negatively, but in essence, the game was open, felt safe, and created a willingness to actively participate in the conversation.

It's clear that physical tools helped to facilitate the interaction, for example, with the cards and game structure, a more agile and productive conversation was archived. Once the game started, the facilitator did not have to do much except listen and occasionally ask for clarification: it aided the urban planner to facilitate dialogue. Participants came together for a free flow of conversation, within the set of frames, without much intervention.

At the same time, this game generated a lot of input for design, all relevant (productive): the urban planner learned about the multi-subjectivity setting and the oddities of the place. By exploring each other's realities, mutual understanding and certain empathy for each other's world emerged. This prototype of the game, however, facilitated to a lesser extent the (evident) learning of the participants, as they indicated that they did not come much more aware of other opinions. The last phase of this game is to gather spatial design outputs from participants and evaluate the proposals against the analytical evidence base. At this stage the students apply their analytical models to see how their design proposals compares with the current conditions. The comparison between the 'before' and 'after' scenarios becomes easier since there are established models that could be interpreted objectively (Figure 4). Design iterations take place after the analysis of each option to improve the issues that are detected by the analysis and are not addressed by the design. This process continues until the analysis shows that the design is achieving its objectives.

4 CONCLUSIONS

This research describes a new participatory strategy of urban design with the purpose to address local residents' attitudes and opinions for the future public realm and placemaking. The key contribution of this study is the formulation and testing of an urban game approach with a strong focus on the user activity and personal experience in the designed space. The method proved to be helpful in the process of designing with a complex context, such approach allows urban designers to step in the shoes of the potential users as well as weave the planned and new narratives in the given context. The explorations presented in the study are part of a larger quest to formulate new methods of design that advocate for a more human-centered approach. Its aim is to consider the value of empathy in urban design by incorporating the diverse needs of future users and predicting their overall spatial experience. The goal is not only to reach the optimal design product, but also to build bonds between the members of the community, to strengthen participants' feeling of responsibility for the environment they inhabit, and to empower local

residents in their cities. Taking all of these into consideration, the proposed method may serve as a basis for future elaboration, its real applicability could be tested in professional urban design practices.

REFERENCES

Christian, H., Knuiman, M., Bull, F., Timperio, A., Foster, S., Divitini, M., ... & Giles-Corti, B. (2013). A new urban planning code's impact on walking: The residential environments project. *American journal of public health*, 103(7), 1219-1228.

Forester, J. (2006). Making participation work when interests conflict: Moving from facilitating dialogue and moderating debate to mediating negotiations. *Journal of the American Planning* Association, 72(4), 447-456.

Gunton, T. I., & Day, J. C. (2003). The theory and practice of collaborative planning in resource and environmental management. *Environments*, 31(2), 5-20.

Hannula, O. (2014). Game structure in knowledge co-creation (Master's thesis).

Hart, A. (2003). A neighbourhood renewal project in Dalston, Hackney: Towards a new form of partnership for inner city regeneration. *Journal of Retail & Leisure Property*, 3(3), 237-245.

London Borough of Hackney. (2018). Hackney is building | Hackney Council. from Hackney.gov.uk website: https://hackney.gov.uk/building

London Borough of Hackney. (2021). Conservation and urban design | Hackney Council. Retrieved 5 January, 2022, from Hackney.gov.uk website: https://hackney.gov.uk/conservation

Millonig, A., & Mitgutsch, K. (2014). Playful Mobility Choices: Motivating informed mobility decision making by applying game mechanics. *EAI Endorsed Transactions on Ambient Systems*, 1(4).

Prawat, R. S. (1995). Misreading Dewey: Reform, projects, and the language game. *Educational Researcher*, 24(7), 13-22.

Sanders, E. B. N., & Stappers, P. J. (2008). 'Co-creation and the new landscapes of design'. *Co-design*, 4(1), 5-18.

Schmitz, B., Klemke, R., Specht, M., Hoffmann, M., & Klamma, R. (2012). Developing a mobile game environment to support disadvantaged learners. In 2012 IEEE 12th International Conference on Advanced Learning Technologies (pp. 223-227). IEEE.

Simkins, D. W., & Steinkuehler, C. (2008). 'Critical ethical reasoning and role-play'. *Games and culture*, 3(3-4), 333-355.

Specht, K., Zoll, F., & Siebert, R. (2016). Application and evaluation of a participatory "open innovation" approach (ROIR): The case of introducing zero-acreage farming in Berlin. *Landscape and Urban Planning*, 151, 45-54.

van der Meij, M. G., Broerse, J. E., & Kupper, F. (2017). Conceptualizing playfulness for reflection processes in responsible research and innovation contexts: a narrative literature review. *Journal of Responsible Innovation*, 4(1), 43-63.

Voorberg, W., Bekkers, V., Timeus, K., Tonurist, P., & Tummers, L. (2017). Changing public service delivery: learning in co-creation. *Policy and Society*, 36(2), 178-194.