The role of Participatory Planning methods in the development of public spaces: A systematic case studies review on Sustainable Urban Governance

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Abstract: Urban Design and Planning worldwide have long been criticized for their lack of meaningful public consultation and participation in the process of shaping our built environment. Currently, the existing practices of consultation and participation are within the confines of council meetings, complex form filling and survey reports that often carry little weight towards the decisions made by the planning authorities; the latter are increasingly seeking for ways to encourage meaningful public participation in urban development decisions. This paper presents a systematic literature review on sustainable urban governance vis-a-vis participatory planning, in an effort to consolidate, evaluate and critique the various approaches on involving the public in decision-making process in relation to urban form in general and public space in particular. The literature/case studies presented are referenced across a scale of degrees of participation, referring to a range of influence that participants have in the decision-making. In its two extremes it can be viewed as no participation, where designers make assumptions of users' needs and requirements, and full participation, based on user-defined criteria of quality. The evaluation of many participatory research practices is somewhere in between the two extremes, focusing more on design with the users. However, the given theoretical process, might provide an insufficient degree of realism that designers need to cope with, due to time and budget constraints. If it is to remain grounded to the practice of design, literature should be able to cope with barriers, and seek understanding beyond its conceptual approaches.

Keywords: participatory planning; urban development; sustainable urban governance; public participation

Introduction

"Participation is a general concept covering different forms of decision-making by a number of involved groups" (Wulz, 1986). Participatory design is based on five fundamental points. First, *politics* in terms of people who are affected by a decision should have an opportunity to influence it; second, *people* in terms of being experts of their lives and having an influential role in design; third, *context* in terms of situations; fourth, *methods* as being the means of users to gain influence; and fifth, *product* in terms of the final goal of participatory design. The empowering quality of life that participatory design is meant to offer is hidden within that final goal (Halskov and Brodersen Hansen, 2014). Throughout the literature, participatory planning can be organized through three main themes

consisting of varying approaches: 1) motives of deciding to engage in participatory design, 2) degrees of participation that may occur, and 3) types of participants who get involved in terms of networks and scale.

In the 1960s and 1970s, the primary motivation of participatory design was linked to "the democratization of work life" (Schuler and Namioka, 1993, p. 251). It emerges as a reaction to the "mismanagement of the physical environment" (Sanoff, 2006, p. 140) and as an attempt to improve the quality of design and planning. Today the democratic and pragmatic efforts of participatory design seem to be shifting perspectives (Sanoff, 2006). Sanders et al. (Sanders, Brandt and Binder, 2010) argue that before someone attempts to customize participatory tools and techniques, they should firstly be able to understand the purpose and context of participation. Even though participatory literature offers a plethora of approaches, the core motivations of participatory researchers and practitioners have been identified and clustered in the following three areas: a) ethics (democracy), b) curiosity (theory), and c) economy (pragmatic) (Bergvall-Kareborn and Stahlbrost, 2009).

The degree of participation refers to a range of influence that participants have in the decision-making resulting to the final product. The level of participation that is required is a matter of 'subjective intention' (Andersen *et al.*, 2015). In its two extremes it can be viewed as no participation, where designers make assumptions of users' needs and requirements, and full participation, based on user-defined criteria of quality (Bergvall-Kareborn and Stahlbrost, 2009). The degree of participation can also be described as indirect or direct (Ives and Olson, 1984). In reality, the evaluation of many participatory research practices is somewhere in between the two extremes, focusing more on design with the users (Bergvall-Kareborn and Stahlbrost, 2009). However, the given theoretical process might provide an insufficient degree of realism that designers need to cope with, due to time and budget constraints. If it is to remain grounded to the practice of design, literature should be able to cope with barriers, and seek understanding beyond its conceptual approaches.

In order to address the issue of balancing theoretical proposals with the constraints and practicalities of design, a systematic review of case studies of participatory design projects was undertaken with the aim of responding to pressing questions regarding criteria to establish how effective participation is implemented and evaluated in real-life contexts. Specifically, this paper addresses and discusses what the state-of-art offers to respond to the following questions:

- How much participation is enough?
- How much commitment is reasonable?
- How can the participants be engaged in the process in the long run of participatory design?
- Should the reasons of participation be ethical or financial?
- How can multiple views and incentives be coordinated in participatory dialogues?

The criteria of what qualifies a participant is considerably broad (Schuler and Namioka, 1993). Usually there are many types of participants taking the form of individuals or groups, interacting either in face-to-face sessions or in online environments (Sanders, Brandt and Binder, 2010). The literature indicates that the types of participant involved are decided based on the scale of the project, the scope and the context in relation to place and time. However, it can be argued that the way participants are perceived by researchers is segmented (designers and participants as separate groups) rather than a collective (designers and participants as part of the same group). This raises questions regarding how different participants interact with each other and how their views impact on decision-making processes. Recent literature suggests that participants are not stand-alone subjects, but part of social

networks (Andersen *et al.*, 2015). Viewing participants as networks (designers, users, stakeholders together), who are always partially integrated in the process and have to ability to cluster and interact, might provide the potential to displace the research focus and shift the participation paradigm.

This paper presents initial findings from part of a systematic review of literature on participatory planning which is being undertaken for the project Sustainable Urban Governance through Augmented Reality (SUGAR). The project aims to develop innovative best-practice protocols and guidelines on sustainable urban governance and, specifically, public participation through augmented reality. The research presented within the scope of this paper focuses on participatory planning approaches to decision-making for the design of public spaces. As this research aims to address effective participation in real-life design contexts, this part of the review focused on case studies. It also intentionally excluded interventions using solely or mostly ICT and augmented reality (though case studies comprising a level of technology use were considered) – this is a core element of SUGAR and the related literature review on these aspects is to be published elsewhere.

The methodology to carry out the systematic review and the analysis of the selected studies is described in the next sections. The findings from the studies on the effectiveness of various methodologies are presented and key issues are discussed according to themes emerged from text analysis of the literature. Conclusions are then drawn in relation to the questions we aim to address, summarizing key messages of the state-of-the-art regarding the strength of the current evidence, existing gaps and where future research should focus to support effective participatory planning.

Methodology for systematic review

The literature search was performed through the following databases: Web of Science, ProQuest, Social Science Research Network, RIBA Library Catalog, JSTOR, and EBSCO Art & Architecture Complete. Both peer-reviewed and non peer-reviewed articles were searched for through the search terms 'participatory design' and 'participatory planning'. Results were filtered by selecting the relevant subjects/topics pertaining to the field of the built environment. These varied substantially between databases and ranged from architecture, urban studies, cities and development studies to social sciences, public administration, planning and sustainability. Only English-language articles were included in the search, which yielded well over 300 articles. A small number of articles were not accessible and once duplicates were excluded, a manual selection was done to identify the most relevant articles based on title of the article and topic of the journal or conference proceedings in which the article was published: attention was given to selecting articles which related to the urban environment, included case studies and were not explicitly focused on technology. A final set of 85 articles was selected for review; at the time of writing this paper 35 articles (30 peer-reviewed and 5 not peer-reviewed) had been reviewed, most of them case studies and a few reporting reviews of literature and methods of participatory planning.

The articles were analyzed using QSR's NVivo 12 Pro software for qualitative data analysis. The articles were read by a single researcher and relevant text coded according to emerging themes. As the subjects of participatory planning broadly fall within the field of (applied) social sciences and the great majority of articles' methodologies fell within the qualitative type, it was considered not appropriate to perform a statistical meta-analysis. As suggested by Davis et al. (2014) for certain research questions, meta-analysis is not necessarily the best tool, if suitable and acceptable evidence comes through research strategies which do not include experimental research or randomized samples. In these cases traditional narrative review, best-evidence, thematic or interpretive syntheses enable a broad review and provide the basis to answer specific questions. It was therefore decided that the most appropriate

method for the analysis of this type of primary research was 'thematic synthesis', a type of thematic analysis of primary research adapted for use in systematic reviews (Thomas and Harden, 2008). Accordingly, all selected studies were entered verbatim into NVivo software. The first stage of the synthesis was to identify the findings of primary studies by extracting key concepts from the full text – it was sometimes difficult to identify these and summaries of findings as qualitative research is characterized by varied reporting styles where findings can be located in different parts of the text and labelled in different ways. In some cases, additionally to 'findings', 'results', 'discussion' and 'conclusions', findings were also placed within the description of the case studies or the activities undertaken. Text describing the case studies was also coded for reference purposes, text from literature reviews and syntheses of specific topics reporting other primary research was also coded to provide additional evidence material. Furthermore, text referring to the methodologies used for participatory activities was also coded in order to collate information about the amount and types of available methods and tools.

The second stage of synthesis involved comparing nodes of codes in order to assess how much overlap there was between different themes, running word frequency queries of codes in order to identify issues of particular relevance within themes and display these as word clouds to visualize them for reporting (queries were limited to 50 words with a minimum length of 4 characters). The frequencies were compared between codes to assess if similar issues were relevant to more than one theme; when the most recurring word featured in more than one theme, these were grouped together to generate word clouds. By combining the results of these analyses it was possible to develop descriptive themes comprising the evidence related to concepts directly addressed by the primary studies: the benefit of these is that they focus the evidence on one particular concept which can provide a framework when planning and implementing participatory initiatives.

The final stage was that of making inferences to answer the review questions based on the evidence collated through the search, coded through text analysis and reported through descriptive themes. As with all synthesis of qualitative analysis, this is the most difficult and controversial stage, since it is dependent on judgment and logical reasoning of the researcher. Within the scope of this study it was not possible to use more than one reviewer to make inferences independently in order to cross-check and validate this – it is a limitation of this study and the authors aim to address this in the next phase of Sugar's review process.

Findings

The first and foremost finding at this stage of the review is that while globally there has been a paradigm shift toward participatory planning, there is still a scarcity of detailed reports and critical assessment of what constitutes effective participation (Andersen *et al.*, 2015) and no consensus as to how to achieve inclusivity and participants' sense of ownership over outcomes (Leyden *et al.*, 2017). The concept of co-creation within the field of participatory design has been used for decades, but its positive impacts are not necessarily self-evident (Lundström, Savolainen and Kostiainen, 2016) and it is not always clear what and how much community groups, especially in contexts of low resources and high inequalities, can gain from participatory processes (Refstie and Brun, 2016; van Holstein, 2018).

The definition of 'participatory development' by the World Bank's Learning Group on Participatory Development – "a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them" – is sometimes used as a benchmark for ensuring and assessing participation in interventions (Ngah and Zulkifli, 2014). Many other definitions exist which focus on somewhat different aspects of the process: the inclusion of all levels of society in

decision-making (Bonilla, 2009), the continuum of activity in communicating and engaging with the public (Kotus, 2013), the openness and multiplicity of the process (Manzini and Rizzo, 2011), its and its transformative and innovation potential (Manzini and Rizzo, 2011; Refstie and Brun, 2016). Existing definitions indicate that participation per se, the process and outcomes are the core features of successful participation; although inclusivity is given consideration, the extent and level of participation are not given much attention. The exception to this can be found in a specific theoretical framework to participation based on Actor-Network Theory. This does concern itself with 'practical' aspects, but in order to directly argue that how many, who, how and how often participants are involved is irrelevant because participation is a matter of concern rather than a matter of fact – as such, participants act directly and indirectly as components of networks and participation occurs aside of designate activities and is an existent aspect of the whole process: no form of participation is 'superior' to others, therefore there is no gold standard for it (Andersen *et al.*, 2015).

Acknowledging these premises, the authors of the present paper aim to give an overview of existing methods and of the evidence relating to key issues around participation. There are three main types of participatory planning: formal (or bureaucratic) participation, action research, and community-led or community-driven participation. Formal participation is led and implemented by state agencies or local authorities, normally as a legal requirement of planning legislation; it tends to involve classic methods of consultation such as surveys, meetings, hearings and sometimes workshops. This type of participation is the one that is most subject to criticisms of 'tokenism' – the undertaking of participatory activities purely to tick off legislative requirements. Such criticisms tend to be frequent when the public's suggestions are not taken up (Zhou, 2018), are dismissed as uninformed (Al-Nammari, 2013) or market powers ultimately direct decision-making (Turan, 2018). Action research is usually led by academic institutions implementing interventions with the aim of simultaneously pursuing impact, change or innovation through participatory practice and producing research findings to inform the project and to develop understanding of the process (Sanoff, 2012). Community-driven participation is, as the term implies, led by the community itself, embodied in more or less formal organizations taking up an issue or devising an intervention through campaigning initiatives or practical projects which may, at some point, require contact and involvement of the authorities. While these are often deemed as being more inclusive and their informal methods can be highly successful, concerns are also raised as to the true nature of inclusiveness if the groups involved are not representative of the wider community, have specific interest or are not accountable for their actions (Hou and Rios, 2003). While all these types of participatory actions can apply to different scales, from the single, small regeneration or design project to metropolitan strategic plans, local and smaller-scale projects are often the domain of action research and community-led activities. Participation in large-scale and strategic consultative processes are normally still the domain of bureaucratic participation - a notable exception being the activities of REDWatch (Rogers, 2016).

Along with the variety of approaches to participatory planning comes a wider range of methods and even wider set of specific tools. The main methods retrieved form the literature so far are presented here with a brief description and summary how they performed in the case studies reviewed; it is not an exhaustive list of all individual tools discussed in the literature – many studies include and assess a variety of individual classic consultation tools – rather this list highlights methodological strategies which can embed a number of tools.

1. Change by Design (Frediani, 2016). This methodology was used as part of ASF-UK project of informal settlement upgrading in cities in Brazil, Kenya and Ecuador. It involved two-week workshops in each city using audio-video techniques to capture residents' experiences and aspirations. The author states that that the workshops supported communities to negotiate

alternative solutions and influencing government authorities in engaging with participation and supporting upgrading schemes. They conclude that this method is most successful at mediating diverse interests (rather than conflict resolution) and at fostering learning and action towards urban social justice.

2. Charrette (Lundström, Savolainen and Kostiainen, 2016). This methodology is a collaborative planning and negotiation process; in the case study reviewed, it was used for the renovation and conversion of a university campus lunch restaurant redesigned to become a learning space. Charrette workshops are highly structured and facilitated involving drawing, creative and hands-on tasks. The authors conclude that this method is successful in embedding user perspective in design and provided a positive impact on the resulting premises, but not every part of the project was successful as some of the objectives for the new design were not achieved.

3. Informal Activities (Hou and Kinoshita, 2007). Rather than a methodological strategy, this study looked at a set of informal participatory activities that took place in Kogane, Japan, to assess their success in comparison to formal processes which took place in Seattle, USA. The authors acknowledge that many of the informal techniques developed by communities, such as walking tours, design games and social events, have already been incorporated into formal processes. Nevertheless, they are worth of attention because they show to help overcome limitations of formal participation and negotiate difference. Animated interactions, experiential learning and spontaneity were the key factors in developing trust between stakeholders.

4. Iterative and Recursive Prototyping (Erixon Aalto, Marcus and Torsvall, 2018). This methodology was applied in the Albano Resilient Campus Project in Stockholm in order to produce knowledge and operationalize concepts of resilience and ecosystem services. The method involves a recurrent series of workshops with design sessions in between; the design outputs from each session are explore through generative matrix models to provide information of the potential performance on the proposed design and thus input into the next iteration of prototyping. Comprehensive narratives were used throughout the design process to offer alternative views of socio-ecological processes. The authors conclude that the process is effective in introducing communication and feedback, generating questions and re-examining problems. While it did not necessarily provide solutions, it enables actors to identify points of conflict and convergence, but can sometimes function in an excluding manner for actors entering the process in later stages.

5. Local Economic Development (Majale, 2008; Bonilla, 2009). LED is a process in which local people from different sectors work together to stimulate commercial activity to achieve a sustainable economy. It is characterized by the development of long-term public-private partnerships, the fostering of social networks, the mobilization of endogenous resources and a focus on a defined territory. In the case study reviewed of slum upgrading in Kitale, Kenya (Majale, 2008), it was shown that labor-based methods presented many advantages to participation in slum upgrading which can support sustainability through job creation and income generation. The author, however, points out that for such methods to have long-term impact, they must be accompanied by other activities such as training and capacity building. In a second case study of the Cordoba-Orizaba region, Mexico (Bonilla, 2009), the method was found effective in achieving consensus among stakeholders and agree strategic objectives for a common vision for the region. The author, however, points out that in this context, the methodology is subject to uncertainties at implementation stage due to mainstream political and economic culture, which does not legitimate participatory planning.

6. Participatory Rural Appraisal (Halkatti, Purushothaman and Brook, 2003; Sharmin *et al.*, 2013). PRA is an approach for shared learning between local communities and outsiders used to assess resources and skills, identify issues and propose solutions. This method was specifically developed for rural areas, but it has been tested in urban contexts as some of its tools, are applicable to all environments. A benefit of PRA is that it does not require technical knowledge to collect data, as such it can be easily implemented in a variety of contexts. It the uses statistical tools to prioritize problems and identify their causes and effects. In the case study of Hubli-Dharwad (Halkatti, Purushothaman and Brook, 2003), PRA was successful in helping communities define and present issues and develop action plans; it was also used as an evaluation tool to compare the situation before and after intervention. In the case of Monipuripara (Sharmin *et al.*, 2013), it was found effective in fostering understanding between local people and outsiders, as well as easy to implement. However, when proposed solutions could not be implemented by the community itself, success rests with resources and commitment of local authorities and was thus not guaranteed.

7. Personal Construct Theory (Dayaratne, 2016). PCT was used a s framework for developing techniques to understand how people see and value their places. It was applied in housing project in Haputale, Sri Lanka. Within these framework sorting and location tasks were carried out with residents and they were deemed successful in directly informing design, rather than just producing a set of issues or priorities for the architect to take into account, and achieving a closer correspondence between the way people conceptualized their space and the space that was eventually constructed. No shortcomings or difficulties with the methods used are reported in the case study.

8. Role Playing (Valladares, 2017; Turan, 2018). Role playing is a specific tool which was used as part of participatory activities in the neighborhood of Gowanus, NY (Turan, 2018) and in self-help house building and renovation projects in Old Havana, Cuba (Valladares, 2017). It is a tool that is used in a variety of fields and embedded in participatory activities along with other methods. However, it is worth mentioning on its own as the evidence from the Cuban case study highlights this a particularly powerful tool to facilitate engagement, despite the fact that the evidence from the Community Architect Program in Havana displays mixed results with residents from more favorable socio-economic circumstances benefiting more than low-income groups.

9. Scenarios (Celino and Concilio, 2010; Chakraborty, 2011). Structuring scenarios were used to manage participatory activities to develop a long-term plan for the Delta of the Po River in Italy (Celino and Concilio, 2010); these scenarios are meant to evolve together with the decision system and aim at envisioning multiple possible futures rather than converging into a single solution. As these can continually evolve, they provide a good basis for long term engagement and may enable the selection of a preferred scenario over another. However, the authors point out that they may not work in all planning situation as the scenarios might not be under the control of relevant authorities. When scenarios were in used in the Washington Metropolitan region (Chakraborty, 2011) they were found to be valuable in capturing issues for the future and creating awareness and knowledge – they have the potential for both quantitative analysis and feasibility testing, but also for engagement and generation of alternative objectives through qualitative methods. The author points out that the analytical process had limitations because of oversimplifying assumption and limited numbers of indicators, but the outcomes were still successful and provided a foundation to achieve tangible benefits.

10. Urban Living Labs (Puerari *et al.*, 2018). There are several definitions of ULLs, but these are generally understood as combinations of several tools to co-create solutions taking place in real, physical environments. A series of ULLs with different characteristics, aims and locations taking

place in Rotterdam in the Netherlands were evaluated and were found to contribute significantly to production of local knowledge and were effective instruments in bringing different actors together and developing potential solutions to specific issues. However, as ULLs are usually set up with a specific purpose they do tend to be successful for a particular case at the scale at which they were set up to work, but they might not necessarily be transferrable or able to impact on a larger scale or beyond those stakeholders directly involved.

11. Visual Mapping (De Vita, Trillo and Martinez- Perez, 2016). This 'traditional' methodology was adapted for use in the case of Belfast by developing a taxonomy of urban elements to capture existing and hidden conflict. This adaptation was thought of also with the potential to support community planning in any rehabilitation project. The authors found that adding the taxonomy to this method refined in such a way that made more effective for used in contested places such as Belfast.
12. Working Group (Al-Nammari, 2013). While WGs are used as a tool in various processes, in the case study reviewed of the Talbiyeh Refugee Camp Improvement Project in Jordan, it was used as the key method: an open forum where visions for improvement were developed and results of activities and interventions discussed. This particular project was fraught with limitations and failed implementations of agreed solutions due to its specific context of power-relations amongst stakeholders. Nevertheless, the author suggests that it can provide a step forward towards democratization of planning practices in contexts where participatory planning is rarely practiced.

Regarding the analysis of key issues in participatory planning, comparative diagrams of codes highlighted specific strong overlaps between themes, which were similar to common word frequencies. Based on these analyses the descriptive themes comprising evidence from related issues are presented below.

Creation: level of participation, level of commitment and reasons for participation

Level of participation in successful participatory projects ranges widely depending on the size and scope of interventions, its aims and objectives and the type of activities planned. Successful activities might have from as little as 20 participants (DiSalvo *et al.*, 2012) to over 100 organizations (Chakraborty, 2011) and over a 1000 attendees to final project events (Manzini and Rizzo, 2011).

Analysis of themes overlap reveals that level of commitment is directly dependent on level of participation, something which is perhaps intuitive as commitment cannot be gained unless participation is achieved first. Evidence shows that a physical and visible space where activities take place is a very strong factor in achieving participation and engagement (Puerari *et al.*, 2018). This does not diminish the potential that ICT tools may have to foster engagement, but the evidence from the reviewed case studies is mixed as to their impact with some showing very little engagement (Kotus, 2013), others a reasonable level of activity (Turan, 2018) and still others being highly successful (Rogers, 2016).

Most studies reveal that they primary and most powerful reason for participation is to develop a solution to a problem that affects them (Manzini and Rizzo, 2011), achieving their goals and aspirations of a better environment (Turan, 2018; van Holstein, 2018) and accessing needed resources (Al-Nammari, 2013). However, certain specific stakeholder have intrinsic economic reasons for participating (Leyden *et al.*, 2017) or may simply have a legal mandate to do so (Halla, 2005). It also has to be noted that while financial incentives were clearly not the main reasons for participation, the lack of such direct incentives may hinder participation, commitment and ownership over the outcome

as well as causing conflict and resentment among participants in contexts of high disadvantage and socio-economic inequalities (van Holstein, 2018).

The word cloud for this theme (figure 1) reveals how the goal of creating something is the key factor in participation; stakeholders, actors, people, groups and communities given the opportunity to be involved in projects, activities, place-making, and social innovation through an appropriate process motivates them to participate and commit to design solutions to critical issues.

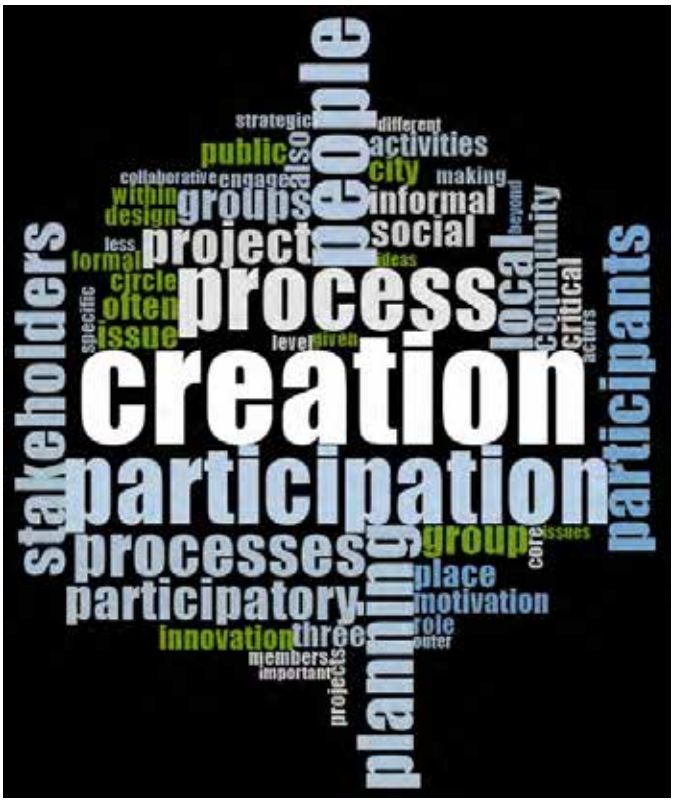

Figure 1. Word cloud for codes: level of participation, level of commitment and reasons for participation.

Process: coordination of multiple views, inclusivity, long-term engagement and sustainability

There are two main approaches to coordinating multiple views in participatory planning: that of allowing for multiple perspectives and conflicting interests to coexist, such as in the cases of scenario building or iterative prototyping, or that of trying to achieve common agreed objectives as in the case of LED. Clearly, as the word cloud for this theme reveals (figure 2), process is the key factor in how multiple views are coordinated. Scenarios seems to be effective in developing long-term views rather than addressing pressing needs. However, implementation and long-term engagement more directly relate to commitment on the part of authorities to truly include participants' views in plans and to the success of the events and people's sense of ownership over solutions, than to the methods used for the activities.

Throughout the literature achieving broad participation from the early stages of the project was seen as a key factor in achieving inclusivity and long-term engagement. Using specific strategies to maintain collaboration during all phases of a project, especially when it seems that participants have less to say, was recommended in the experience of some researchers (Lundström, Savolainen and Kostiainen, 2016). In order to achieve inclusivity certain groups, such as women, youth and the poor should be

specifically targeted (Halkatti, Purushothaman and Brook, 2003; Majale, 2008) and certain norms of communication should be followed (Kulözü, 2016). However, there is still no consensus as to how to achieve a completely participatory process (Leyden *et al.*, 2017) and it may be that an ideal state of participation may not be an achievable goal.

Attaining long-term engagement and sustainability of an intervention it is suggested that rather than aiming at making immediate improvements (though this tends to gain participation at first) participatory programs should be designed to enable communities to make further improvements accessing further support in the future (van Holstein, 2018). It should also be noted that in some cases where economic conditions allow, crowdfunding can be a powerful tool to sustain or extend an intervention, even though this may only be a temporary source of financing (Manzini and Rizzo, 2011).

Figure 2. Word cloud for codes: coordination of multiple views, inclusivity, long-term engagement and sustainability

Community: bias and limitations

The literature clearly shows that Western models of participation are often applied in the Global South without enough consideration given to the differing socio-economic circumstances. Analyses of participatory projects in Asia, Africa and South America show that bias is stronger in more disadvantaged communities and in areas with greater inequalities (Halkatti, Purushothaman and Brook, 2003; Refstie and Brun, 2016; Horn *et al.*, 2018; van Holstein, 2018). As the word cloud for this theme suggests (figure 3), the distribution of resources and power, economic conditions, institutional attitudes and interests all play a role in bias and pose limitations to participation.

Political will and authorities' true commitment to participation are the key limiting factors in developing and implementing interventions (Bonilla, 2009; Al-Nammari, 2013; van Holstein, 2018); weak local government institutions and lack of capacity among local authorities are also cited as important factors (Horn *et al.*, 2018). In fact, throughout the literature social capital is deemed to be the most significant component in avoiding bias and enabling activities and interventions and even mitigating lack of strong political will. This is probably why 'community' features so visibly in the

analysis of bias and limitations. In light of growing diversity and complexity of urban environments community-led actions often seem to have less limitations than formalized practices, but as previously mentioned these can also come with their biases (Hou and Kinoshita, 2007).

Reports of bias in Western case studies are less frequent, although these do exist (Luck, 2018; Puerari *et al.*, 2018), but as the reviewed literature often does not mention or assess this issue, consideration might be given to the fact that in Western, wealthier contexts assumptions may be made that bias is less frequent and is thus assessed to a lesser extent.

Figure 3. Word cloud for codes: bias and limitations.

Conclusions

As presented in the analysis, turning back to some of the research questions: level of participation, level of commitment and reasons for participation really rest with the creative power of interventions to deliver solutions. This is regardless of the type of participatory action, whether it is bureaucratic, action-based or community-led. Appropriate processes must be developed in order to coordinate multiple views, ensure long-term engagement and sustainability of projects; in order for this to happen inclusivity is key, not just in terms of variety of groups involved in the process, but also with regards to the extent to which their views are taken into serious consideration, embedded in plans and finally implemented. Bias and limitations can be mitigated through active inclusive practices, but strong leadership and political will are the key factors in minimizing bias and reducing limitations (Gedikli, 2009), especially at implementation stage.

Motivation to participate should and most often is related to aspirations, desired outcomes and a variety of social benefits which people, community and groups can gain through activities. These are proven to be the most powerful forces to gain participation, commitment and long-term engagement. Therefore, while financial incentives are not usually a necessity and are unlikely to improve the process and outcome, they should be considered in cases where including disadvantaged populations may be problematic and in contexts of high inequalities.

So far, the literature presented no case studies with a specific focus on public space, but the methods reviewed are applicable to a variety of urban settings and case studies comprise scales which include public spaces. It may be that there is scope for further specific research on public spaces, especially in light of the fact that physical and visible space is a very strong factor in engagement. While we have not yet focused on the issue of how participatory processes are linked to sustainable development and sustainable urban governance, there are indications that scaling of activities from small, local projects to frameworks development and regional planning may be a way to achieve transformative sustainable impacts. This is a next step for our research along with completing the review of the existing literature search and expanding the search through Google Scholar. Validating inferences through separate assessment by different researchers and combining this review with that of the literature on the use of technology in participatory planning are also important steps to achieve a comprehensive review and address its current limitations.

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