



## Research article

# Planning support tools and their effects in participatory urban adaptation workshops



Sadie McEvoy<sup>a, b, \*</sup>, Frans H.M. van de Ven<sup>a, c</sup>, Michiel W. Blind<sup>a</sup>, Jill H. Slinger<sup>b, d</sup>

<sup>a</sup> Deltares, PO Box 177, 2600 MH Delft, The Netherlands

<sup>b</sup> Department of Policy Analysis, Faculty of Technology Policy and Management, Delft University of Technology, PO Box 5015, 2600 GA, Delft, The Netherlands

<sup>c</sup> Department of Water Resources Management, Faculty of Civil Engineering and Geosciences, Delft University of Technology, PO Box 5048, 2600 GA Delft, The Netherlands

<sup>d</sup> Institute for Water Research, Rhodes University, PO Box 94, Grahamstown 6140, South Africa

## ARTICLE INFO

## Article history:

Received 23 May 2017

Received in revised form

6 October 2017

Accepted 21 October 2017

## Keywords:

Urban adaptation planning practice

Participatory planning

Stakeholder engagement

Evaluation

Planning support tool

Resilient cities

## ABSTRACT

In the face of a changing climate, many cities are engaged in adaptation planning and are using participatory workshops to involve stakeholders in these initiatives. Different tools are being used to structure the process and content of participatory planning workshops, but it is unclear what effect the tools have on the workshops and their results. We evaluated three different tools (Group Model Building, the Adaptation Support Tool, and the Stress Test Guideline) and a tool-free approach in repeated simulated workshops, to observe and compare (1) the way workshops played out, and (2) the direct outcomes that were achieved. Tools appear to influence both aspects. Specifically, we measured differences in the learning effects in groups, in the development of shared understanding within groups, in the types of plans that are developed by groups, and in the nature of participation during the workshops. Further research is needed to translate these results into practice, but this is a first step in advancing knowledge about the influence of tools in participatory planning activities.

© 2017 Elsevier Ltd. All rights reserved.

## 1. Introduction

In recent years, a field of research and practice has emerged around how to make cities resilient to the effects of climate change. Subsequently, a number of frameworks and initiatives have been created to guide cities in their planning efforts (Sellberg et al., 2015). A common characteristic of these approaches is stakeholder participation in the planning process (For examples, see Ahern, 2011; Berg et al., 2015; Sharma et al., 2014; Tyler and Moench, 2012).

Calls for participation are based on the expectation that involving stakeholders provides substantive benefits, such as better informed decisions, and procedural advantages, like increased legitimacy (Beierle and Konisky, 2000; Wesselink et al., 2011). However, achieving meaningful outcomes from participation can be difficult and success is often determined by the contextual factors of individual cases (Kallis et al., 2006; Ker Rault et al., 2013). In

adaptation planning, stakeholder participation is mostly carried out through participatory activities, such as workshops. A tool is typically used to structure an activity's content (information, data, etc.) and process (steps, actions, interactions, etc.). In practice, the tools vary widely in form and function, from role playing games to workbook exercises, and dialogue sessions to simulation models (Tyler and Moench, 2012; Ven et al., 2016; Wardekker et al., 2010).

Despite the number and diversity of available tools, little attention is paid to which tools work, how they work, and in which contexts they are suitable. Evaluations of tools are rare, or are ad hoc reflections, at best (Rowe, 2004; Rowe and Frewer, 2000). Without systematic comparisons of tools in use, empirical evidence is missing about the role and influence of tools in planning activities. Consequently, cities lack substantiated guidance on how to select appropriate tools to support their planning aims and local context.

The goal of this research is to explore the influence of tools on participatory activities in urban adaptation planning. To this end we carried out two experiments, in which we evaluated three different tools and a tool-free approach, using multiple simulated planning workshops with post-graduate students from the Delft University

\* Corresponding author.

E-mail address: [sadie.mcevoy@deltares.nl](mailto:sadie.mcevoy@deltares.nl) (S. McEvoy).

of Technology, in the Netherlands. Our results show that using different tools indeed leads to differences in the nature of participation during activities (e.g., how groups work together) and in the outcomes of activities (e.g., characteristics of adaptation plans that are developed). This systematic evaluation of tools is meant as a first step in building evidence on the effects of tools in participatory planning activities for urban adaptation.

In the following sections of this article we present the theoretical background for our evaluation of tools in participatory planning activities, followed by a description of our research design. Next, we present our findings, reflect on their meaning, and, finally, share our conclusions.

## 2. Evaluating participatory activities and the influence of tools

### 2.1. Conceptualizing tools, activities and processes in planning

Broadly speaking, planning involves a series of steps taken toward achieving a particular goal, such as adapting a city for climate change, and can be conceptualized by three core dimensions: process, context and outcomes (Hassenforder et al., 2015). The *planning process* refers to how the steps or procedures are carried out and who is involved. Planning processes are not necessarily linear nor well defined, as the simplified schematic in Fig. 1 may imply. In reality, planning processes are often messy, involving parallel activities, dead ends, and iterations. Our figure simply represents planning as a process that encompasses different activities carried out over time, and that the process happens within a context and produces outcomes of some type. When a planning process includes stakeholders in some of the steps, it is considered a participatory planning process (Geurts and Joldersma, 2001; Hassenforder et al., 2015). Stakeholder participation can take many forms and involve different stakeholders in different capacities and at different times in the process (Arnstein, 1969; Rowe, 2004; Wesselink et al., 2011). Planning processes happen within a *context* that is created by different factors, such as local political climate, regulations, physical characteristics of a site, and economic conditions. Context plays an important role in how a planning process unfolds and the kinds of outcomes that can be achieved (Basco-Carrera et al., 2017; Hassenforder et al., 2015; Rowe and Frewer, 2000). The *outcomes* of a planning process are the impacts on the system and the actors involved. Outcomes can be of various types and occur over different time scales (Hassenforder et al., 2015; Thissen and Twaalfhoven, 2001). Examples include less tangible impacts like improved cooperation between different authorities, and more concrete impacts like an agreement on preferred adaptation measures.

The steps taken in a planning process include different activities, such as data collection, modelling and meetings, which are carried out to achieve specific aims. We borrow the notion of *activities* from Thissen and Twaalfhoven (2001), who define policy analytic

activities as a “specific analytic effort delimited in time and scope and oriented towards a specific policy issue” (p. 628). In this conceptualization, a distinction is made between the content and process elements of an activity. *Process* elements relate to how an activity is organized and plays out, including, for example, the interaction and communication between participants. *Content* elements relate to the substance of the activity, such as the knowledge or information that is shared and used. The *input* to an activity includes aspects related to its process and content, such as who is included and what data is available. Input is what is provided to an activity, it is not the opinions or information provided by participants during an activity, which is considered content. *Results* are the direct products of an activity, such as plans, agreements or models. The *effects* of an activity come from two sources: via the use of results in the planning process, and directly from the activity itself ( ). One example of a direct effect is improved understanding about a problem. An effect through the use of results could be the selection of an alternative that was developed during an activity. A *participatory activity* is a single event, such as a workshop, that involves stakeholders to support problem-structuring, solution-finding, decision-making, or implementation. Participatory activities can be organized by authorities or by grassroots initiatives and they can be carried out in any part of a planning process. There may be multiple participatory activities during the course of a participatory planning process.

In participatory activities, *tools* are often used to structure the process and content. Tools can fill several functions, such as providing information, facilitating communication among participants, and supporting the procedures that are carried out (Al-Kodmany, 1999; Geurts and Joldersma, 2001). Tools take different forms, from simple role playing games to computer-based models.

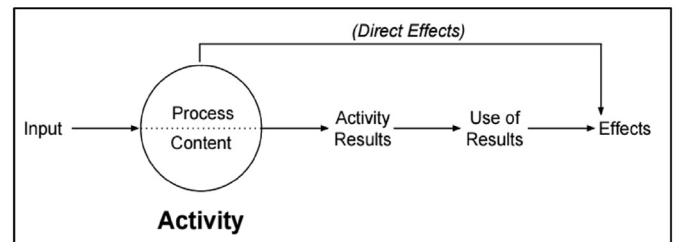


Fig. 2. Conceptualization of activities (Thissen and Twaalfhoven, 2001).

### 2.1.1. Relations between tools, activities and processes

The use of tools is embedded within participatory activities, which happen in the course of participatory planning processes (Fig. 3). This conceptualization assumes underlying causal relationships in the direction of the arrows shown in Fig. 3. At the planning level, the context influences the planning process, which

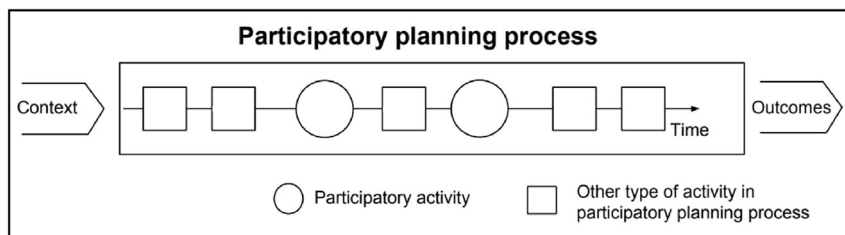


Fig. 1. Simplified schematic of a planning process.

Download English Version:

<https://daneshyari.com/en/article/7478581>

Download Persian Version:

<https://daneshyari.com/article/7478581>

[Daneshyari.com](https://daneshyari.com)