

Beyond a Workshop: New Design Opportunities for Participatory Policy Development

Chorong Kim¹, Jinjae Kim², Ki-Young Nam^{3*}

¹ Ph.D. Candidate, Dept. of Industrial Design, KAIST

² Undergraduate, Dept. of Industrial Design, KAIST

³ Prof., Dept. of Industrial Design, KAIST

Abstract

The research proposes that public sectors can utilize design for public policy development and civic engagement, not only designing signage, facilities and services. Design can satisfy the condition of citizen participation required for policy development, and can even exploit the value of participation. In current participatory policy development, design is mainly utilized in a workshop setting. Most of related publications are workshop design guidelines for policy/design practitioners. It is hard to find the information about effects of workshop design on citizens who participated in workshops. In order to draw citizens' active participation in long-term and wide-scale policy development, civic engagement needs to precede so that citizens can recognize the value and necessity of their participation and can become interested in and take action for policy issues. The research analyzed a policy workshop design case to understand effects of designing workshops on civic engagement. Ethnographical observation, survey and post-workshop interviews were conducted. The research identified positive effects and current limitations of the workshop, and discussed directions and considerations for future workshop design.

Keywords Design for policy, participatory policy development, civic engagement, workshop design, youth policy workshop

*Corresponding author: Ki-Young Nam (knam@kaist.ac.kr)

Citation: Kim, C., Kim, J. & Nam, K. Y. (2019). Beyond a Workshop: New Design Opportunities for Participatory Policy Development. *Design Works*, 2(1), 12-24.

Received : Mar. 31. 2019 ; **Reviewed :** Apr. 09. 2019 ; **Accepted :** Apr. 12. 2019

ISSN 2635-7194

Copyright : This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted educational and non-commercial use, provided the original work is properly cited.

1. Introduction

1.1. Design for participatory policy development

In the past, the role of design in public sector was implementing existing policies in later stages of policy development. The concept of design was mainly regarded as an outcome, hence design was utilized for generating a specific solution for a particular policy decision, such as signage, public spaces, facilities and services. Now the concept of design has expanded its authority from outcome to process, as the value of design approach itself (so called 'design thinking'). As a design approach seeking creative solution based on fundamental human needs has gathering more attention in public sectors, design process, methods and tools are actively applied to develop policies in earlier stages of the policy development process.

In the early stage of participatory policy development, citizen participation is necessary not only to tune with democratic mandates, but also to reflect citizens' needs on policy development (Robert, 2004). In terms of participation, design is specialized in drawing non-experts users' (or citizens') active involvement in a problem-solving process. According to Stickdorn et al. (2011), design always prioritizes fundamental human needs so it communicates in 'user language' not using technical terms (e.g., persona, user journey map, etc.), which helps users to understand, sensitize and even empathize to a problem context. The 'user-centered' communication and visualization expertise can also coordinate multi-stakeholders' cooperation (since nobody cannot understand 'user language'). Therefore, design can realize the value of citizen participation in policy development.

1.2. Policy workshop design

Currently, workshop is among the most

common means of introducing and applying design approach to a policy context. Workshop is preferred by governments because it is based on a face-to-face group interaction that is considered as an ideal setting for deliberative policy discussions (Robert, 2004). Furthermore, design workshops involve participants in hands-on activities, through which the participants can experience a compact design process, obtain a tangible understanding of design values and ultimately be engagement in the design process at a more active level (Muller, 2003).

For these reasons, governments including EU countries (UKD Council, 2013; Whicher et al., 2013; Whicher et al., 2016), Singapore (Ng, 2014) and South Korea (Yoon, 2015) has been actively holding policy design workshops in recent years. As policy design workshop continues to become a worldwide trend, design firms that provide professional design service of the workshop have emerged to support governments, their primary clients (Kim & Nam, 2017).

1.3. The adaptive conditions for policy workshop design: civic engagement

Public policy development process has a different context from traditional design context of developing (commercial) products or services. Though there exists a common ground between the policy and design context, also present are design values that are new to policy and policy conditions that design has yet to considered (Kim et al., 2017). Therefore, it is necessary to adapt design workshops that are applicable to context of policy development, rather than directly applying existing design tools and methods.

One of the most distinctive differences is that policy requires to provide people with lessons from participation, so called civic engagement. Generally, the purpose of participatory approach in design is that designers acquire an in-depth understanding of users to generate user-centered

solutions (Sanders, 2000). In the context of policy development, however, participatory process should enable the participants to learn the importance of and motivation for participating in policy processes (Kim et al., 2017). This is required for a more active, voluntary and sustainable participation, which can strengthen the governance (Wynne, 2007). Therefore, the participatory policy workshop should be designed with careful consideration on how the workshop can give a lesson to its participants, facilitating civic engagement.

However, as aforementioned, design workshops were initially designed for designers (rather than participants - users) and their deeper understanding of users, current cases focus on providing workshop hosts such as designers, public administrators and policy makers with useful resources for developing citizen-centered policies. For this reason, current literature provide little information of what participants receive from policy design workshops. News articles, government reports (white papers) and research papers mainly focus on introducing design processes and methods that can be used in a workshop setting and those are published as manuals, guidelines and tool-kits for workshop design (Whicher, 2016; Yoon, 2015).

In other words, current literature mainly targets workshop hosts including designers, policy makers and public administrators so that they can better design and operate workshops. There is a scarce consideration for what and how participants would obtain from attending policy design workshops. The reason might be that currently design workshops are still regarded as a user study methods for getting in- depth understanding user (citizen) needs, not a channel for citizen participation and engagement. In order to fully exploit the value of workshop design in policy context, the workshop should be a place, not only for mining citizen needs, but also the

place where citizens are able to learn and become more matured ones through civic engagement. Therefore, providing meaning lessons to citizen participants to effect on their policy engagement is a new condition for designing workshops in the policy context.

The research hence conducted an empirical case study and analyzed effects of a policy design workshops on participants in order to gain in-depth understanding on current effects and limitations of policy design workshop for civic engagement. An ethnographical research was conducted to involve in the entire process of workshop design, from planning to evaluating the workshop. The results were analyzed to formulated two types of findings: 1) positive effect of the workshop caused by design values and 2) limitations of the workshop caused by unique policy conditions.

2. Research Methodology

2.1. Case study: Youth policy idea workshop in Daejeon city, S. Korea

The research aims to obtain empirical findings from current participatory policy workshops in the field and provide implications of designing policy workshops that benefit a policy context.

Therefore, as the main research method, we conducted an ethnography in a practical case in which an in-depth involvement of researchers were allowed.

We set our case as a local youth policy workshop in South Korea. South Korea is entering the initial phase of utilizing design for participatory policy development. Local governments are trying to 'design' policy workshops but the role of design is often limited, such as to the field of visual aid. Therefore, the

case of policy design workshop in South Korea can be a useful research subject since it can provide researchers with the understanding of limitations of applying design to public policy context.

Youth policy and participatory governance are among key policy directions of the current South Korean government. Daejeon city, which boasts the second highest density of youth population in all of Korea, is also trying to develop youth policies by involving Daejeon youth people.

The youth policy workshop is a reflection of their attempts, which serves to discover hidden youth problems and assess current youth policy from the perspectives of the youth. The workshop was held in May 2017, by Daejeon city. Over 40 people including college students, youth activists, young entrepreneurs, civil officials, city councilmen and professors of public administration participated in the workshop (Figure 1).



Figure 1 Youth Policy Workshop in Daejeon City, S. Korea

The workshop process consists of three phases (Figure 2). First is for the understanding of current youth policies in Daejeon. A set of policy cards containing policy names and brief explanations was provided to each participant. The participants voted on the most important and the most urgent policies by their personal standards. Second is for the identification of the most important policy domain. A matrix consisting of eight youth policy domains was provided. The domains were produced by

categorizing current Daejeon youth policies. The participants chose one domain that was the most relevant to others (hence what they believed was most important), by checking the relationship between the different domains. Third is for the proposal of new policy ideas. The participants generated policy ideas based on the domain they chose. They then shared the ideas and voted on the best idea. They used SYMFLOW, a mobile web service, to upload their ideas and vote on those of others anonymously.

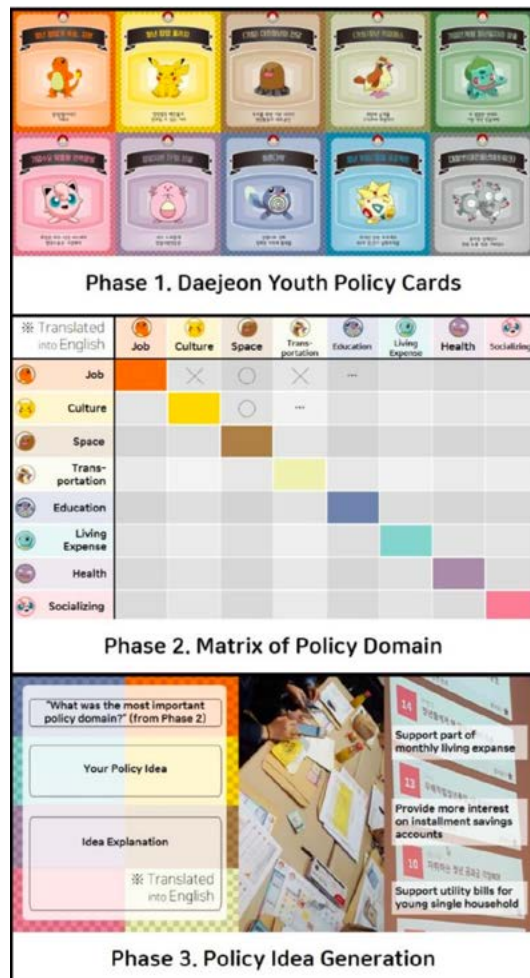


Figure 2 Workshop Material (Toolkit)

Youth Link, a youth activists group in Daejeon, conceived the concept and planned the overall process of the workshop. Daejeon government provided Youth Link with a Request

For Project (RFP), and assigned a professor in the department of public administration as their advisor. Youth Link didn't have designers, hence one external designer was involved. The designer wasn't involved in process design, instead she was asked to design visual aids (e.g. policy cards, idea generation templates) and organize specific tasks for the given process.

2.2. Data Collection and Analysis

We collected the research data including workshop RFP, proposals, minutes, observation notes, workshop outcomes, workshop evaluation sheets from the participants and interview transcriptions (Figure 3).



Figure 3 Collected data from the workshop design cases

Three experienced design researchers (one Ph.D. student and two MSc students) participated in collecting and analyzing data. Before the workshop, they were invited in every meeting of workshop design. During the workshop, they conducted an observation and on-site interviews with the participants. After the workshop, they conducted semi-structured interviews with members of Youth Link and civil officers to evaluate the workshop from the perspective of hosts.

The main data analysis method is a qualitative clustering of the research data generated through the case. The purpose of clustering is to formulate findings on both 1) positive effects of design on the workshop and 2) limitations of the workshop caused by unique

characteristics of policy or public administration, from which we will draw out design criteria or new design opportunities for designing for the coming participatory policy processes.

3. Results and Findings

3.1. Increase of awareness and interest through process engagement

The workshop was found to have a positive effect on young participants' basic understanding of policies. We conducted surveys before and after the workshop took place. In order to compare the participants' awareness of and interest in youth policies, we asked participants to answer how much they are aware of and interested in youth policies utilizing a five-point Likert scale. In the results, the responses "I have little knowledge of youth policy" and "I have little interest in youth policies" have dropped significantly (Figure 4).



Figure 4 Results of the Survey

A participant explained the reason as follows (translated Korean into English):

“I have some experience of attending public hearings and other types of government-organized meeting. In previous meetings, the organizers just asked participants to present personal opinions concerning job search. There was no group activity, no toolkit and no moderator, except for a single chairperson. In this workshop, I was given simple and clear directions. The kit was also fun. It was like playing a card game.”

This implies that design cannot only assist creating workshop toolkit look nice, but also play an active role in organizing a participatory process. According to Kim et al (2017), both design and policy commonly require people to deeply understand a (design/policy) problem in the participatory process, during which design can assume the function of engaging people in the process.

In our case, design was utilized to subdivide the three workshop phases into smaller tasks. For example, youth policy cards in phase 1 enabled the participants to take a look at each policy and compare it with others. Each card acted as a topic of conversation. The participants discussed with one another by using the card. They compared the policies by arranging the cards in order of importance. The results show that the designed cards guided the participants to study current youth policies by subdividing phase 1 into smaller hands-on activities. In addition, the visual design of material (toolkit) further engaged the participants in the workshop process. The toolkit allowed participants to perceive policy discussion as an entertaining game-like activity rather than a serious and boring one. In other words, design can be utilized to engage people in the participatory process, which can be effective in increasing their awareness and interest in policies. A process can be designed as a series of hands-on activities that guides people to better understand the process. Tangible materials can

also be designed and added to reduce people’s emotional burden that can hinder an effective policy discussion.

3.2 Personal lesson through participation

We found some young participants who were highly engaged in the workshop process feel a sense of self-efficacy and community spirit immediately following the workshop. From the post-workshop interview, one participant recalled:

“I felt a sense of contribution in the process of designing policies and at the same time, I realized how much I was unfamiliar with and unaware of those like me [in the youth community] before.”

In addition, we also found that the workshop provided the participants with an opportunity to discern what constitutes good policy. Before and after the workshop, we asked participants, *‘what is a good policy?’*. Before the workshop, 15 of 40 participants answered that *‘a good policy is one that satisfies the majority of people’*. After the workshop, however, their answers became more diversified such as the following: *‘reflecting people’s real needs’, ‘not harming basic human rights’, ‘feasible’* and *‘sustainable’* (Figure 5). One participant explained his reason for changing the answer as follows:

“I had a hard time grasping the concept of policy because of its broadness. I mainly thought that policy is a kind of the majority vote. But having participated in today’s workshop, I realize that policy is not extraneous. In fact, it is very close to my life, and I should handle policy in a cautious manner.”

Q. What is a good policy?



Figure 5 Survey response of a participant to the questions of 'what is a good policy?'

Policy has complicated stakeholder relationships. Its multifaceted nature often induces value or ideological conflicts (Beierle & Konisky, 2000). Therefore, the question of 'what is a good policy' is among grand discourse regarding 'public good,' thus there is no single criterion for good policies (Robert, 2004). In this context, the change of answers does not translate to mean that the workshop enabled the participants to deliberate and determine good policies. Instead, our results show that, through the workshop, the participants became to think over policy and build their own criteria on their own accord. In other words, participants obtained their own lessons from the workshop, which encouraged them to take a more matured attitude towards policy.

In the next sub-section, we introduce limitations of the workshop and discuss their

reasons and directions on improvement. The following limitations and our reflections provide insight for new design criteria and opportunities for a future policy design workshop.

3.3. Lack of deliberation among participants

First, the participants pointed out a lack of deliberation in the workshop. The most noteworthy oversight is the insufficient consideration for the gap in participants. There was a difference in participants' background knowledge about public policies (from high school graduates to public administration majors), experience and willingness of participation (from those without experience to practiced youth activists). Nevertheless, there was no guide or discussion rule for ensuring equal right of say to participants. A handful of knowledgeable, experienced, or talkative participants led the conversation. One participant's response, "The information and stories individuals wanted to share were too different. Some needed more than an hour while others didn't have much to say..." suggests that the inconsistency of information, experience and volition between participants led to a discrepancy of initiative and right to say.

We are not claiming that we should have invited only well-informed and strong-willed people to the workshop. Non-expert citizens can contribute to a policy discussion, as a 'value consultant' (Beierle & Konisky, 2000), which can be achieved through their constructive dialogue (Robert, 2004). Simply put, we should have designed the participatory policy workshop in such a way that it can facilitate non-expert citizens to carry out their roles.

Usually, participatory design workshop requires participants to generate a wide set of ideas in order to understand their needs from 'what they make' (Sanders, 2000). In this case, the focus is the interaction between designers

and participants (users). Hence the role of a facilitator is to make participants immersed in the process. However, when it comes to a policy context, the workshop should be more focused on the interaction among participants so that they can better deliberate and confer with one another (Kim et al., 2017). In other words, policy design workshop needs more than engaging participants in the process itself. The workshop needs an experienced facilitator who can recognize the capabilities of non-expert citizens, explain topics to their level of comprehension and guide them to better discuss with one another.

Another prominent drawback is that the workshop activities did not provide participants with an opportunity for in-depth discussion. The workshop implemented a majority vote to conclude its activities. Following all three phases of the workshop, the participants voted the most important and urgent existing policy, policy domain and policy idea. As the final outcome, money-related policies were prioritized in all three phases. The participants selected the policy subsidizing job-seeking expenses as the most urgent existing policy. The most urgent policy domain was living expense. Likewise, the most popular policy idea in the final phase was also the policy financing living expenses. We suspect the risk of a decision by majority affecting the next phase. This potentially neglects the wants and needs of the minority. Voting is a necessary system in representative democracy and can be efficient when opinions or ideas need to be converged. Nevertheless, to guarantee the inclusion of the needs of minority, voting requires all participants to be well-informed of a topic or problem and have enough time to consider and deliberate on the alternative.

The results of our case show participants' proclivity to endorse policies that provide financial support. We cannot say they had a lack of deliberation but it implies that their

decision was focused on immediate solutions. They were engrossed with quick fixes of current situations (e.g. subsidy for hardships in life) rather than considering fundamental reason of the situation. A Public problem intertwines with other problems, which makes it hard to figure out the fundamental reason of the problem. For example, hardships in life faced by current young adults intertwines with other problems such as unemployment, real estate, minimum wage. Since each problem is huge both in magnitude and complexity, many often struggle to uncover underlying cause and prefer palliative policies (e.g. subsidy) that immediately mitigate the problem.

Voting may be efficient in progressing workshop process since it enables the selection of a few popular ideas and sets a direction for the next step. However, a popular idea does not indicate that it is the most important and urgent one. Furthermore, the efficiency does not reflect the values of a workshop format, either. In order to exploit the full benefits of a workshop format in which an in-depth face-to-face interaction is possible, we should design a workshop that enables a thorough discussion of fundamental and real benefits of policy needs to precede, rather than a mere process of election for expeditious progression.

3.4. Lack of motivation for sustaining participation

We also found the workshop hosts had difficulties in securing sufficient participants in practice. Most participants and hosts pointed out a lack of diversity in the participant pool. One participant reported, "Only the regulars join..." Although hosts actively posted social media contents to promote the workshop and asked around to invite acquaintances to the workshop, finding people who would voluntarily participate in the workshop was strenuous.

The explanation can be found in the workshop itself. The workshop only accommodated dozens of participants, took place in a closed setting (e.g. conference hall), and required intensive participation. In order to take part in the workshop, participants were required to spend a quarter of a day and energy for a discussion that is unfamiliar to them, which served as a burden. Usually, a participatory design workshop is considered as an experiment for user study. However, participation in policy design is not an experiment, and motivation should not be compensation for attending a workshop. Instead, voluntary participation from matured citizens is desired.

In this context, the workshop in our case did not provide enough motivation to the participants. While we determined that participants acquired a sense of self-efficacy and social responsibility from the workshop, they regarded these as one-off lessons and did not mention nor imply their willingness to participate in the future. Policy literature proposes that personal growth through participation can lead to a sustainable and voluntary participation, which can ultimately strengthen governance of a community. (Durose & Richardson, 2016; Robert, 2004; Santos et al., 2006). This is different from ordinary participatory design contexts in which participants do not have to maintain participation. Therefore, linking personal lessons that individuals can acquire from the workshop to the motivation for forthcoming participation can be a new design opportunity. To promote this, we can design a workshop that places more importance on helping people discover and share intrinsic lessons, rather than focusing on idea generation and development. In addition, we propose that, not only during a workshop but also pre and post workshop, people should be able to understand its real efficacy for more active participation. Several workshops were held

in the city but we did not find a relation between those and that referred to in this case. Not one workshop was a spin-off of those held previously. This implies that current workshops tend to be held intermittently, from which people can hardly configure how the results of each workshop were reflected on real policy processes. This incoherent way of planning and operating workshops can misguide people to regard each workshop as a mere one-off event that has little effect on the real world, discouraging additional participation. Participatory policy workshop is not only an opportunity to listen to the public voice on a particular issue, but also an opportunity to build trust between the administration and its citizens (Corbett & Le Dantec, 2018). The aforementioned trust is formed when participants truly believe in the efficacy of the workshop. Therefore, before a workshop, we should promote and recount the purpose of the workshop, its position in a larger context of policy process and its potential effect on the real world. Subsequently, after the workshop, we should conduct a follow-up by reporting its results and current progress.

3.5 Lack of vision alignment among workshop hosts

The final shortcoming is a discrepancy in level of engagement among different workshop hosts. In our case, we had two distinct groups of hosts. One was government (civil officials) as a client and the other was consultants (youth activists, advisory professors and designers) who planned and provided workshop services. In the planning phase, we observed that the role of government was passive. Their role was limited to creating Request For Proposal, receiving a proposal from the activists, providing basic data such as current Daejeon youth policies, arranging a workshop schedule and inviting VIPs. The substantive workshop design was entirely led by the consultant group. On the day of the workshop, we observed that the government officials

were more focused on employing the ancillary role as workshop staffs, rather than actively participating in the workshop. One participant exclaimed, *“There was little opportunity to talk to the civil officers. They just watched us from a distance and chose not to join us.”*

Corroborated from our findings, we inferred that the government might have internal purpose, which may slightly differ from the ideal value of a workshop. Generally, the significance of a workshop is that it enables government and citizens to learn from each other (Irvin & Stansbury, 2004). Simultaneously, organizing a workshop is one means of satisfying public administrative conditions that require regular face-to-face meeting with residents. This suggests that a workshop may be held to simply meet compulsory standards, and not because of the hosts will. Kim & Nam (2017) also reported low engagement of government officials in operating a workshop, which may be the cause of detached, one-off workshops. We are not claiming that this is the sole fault of the government. Instead, we assert that the currently practiced passive role of government in designing workshops could risk distracting civil officials from actively interacting with citizens, ultimately degrading the real value of a workshop.

In this context, we suggest that the government should at least be involved in the planning phase of workshop design. In that phase, all workshop hosts should share their vision and value statement, such as what they want to achieve through, what they have to satisfy or consider in the workshop. The consultant group can understand the unique characteristics of a policy context and situation of the public administration. In the other hand, government officials can also understand the value of workshop and define their roles at a more active level. Therefore, before beginning to design a workshop, hosts should align their own

goals with one shared vision, which enable them to define more specific and feasible objectives of the workshop and clearly assign roles so that each host can contribute to workshop at a more active level.

4. Discussion

The findings of the research show underexplored areas of which design has not yet been considered, and unique features of policy context, from which three discussion points can be derived as new criteria and opportunities in designing policy workshops.

Based on the findings, we suggest three discussion points for future steps. First, we should consider distinctive characteristics of the workshop format to profit from its benefits. Workshop is, by nature, specialized for in-depth group communication. On the downside, it is also hard to involve or engage many people in its process. Therefore, we should take both micro and macro levels approach. Micro level is designing the workshop process in such a way that it can facilitate deliberative discussion and personal reflection from participation. Macro level is exploring alternative platforms that are open and easy to access (e.g. via public street, social media, etc.), complementing the disadvantages of the existing workshop format.

Second, current participatory channels should be subdivided and then organized into a series of activities so that they are aligned with a policy process. One-off workshops are hard to generate meaningful outcomes, and long-term participation requires exorbitant exertion from all participants. Therefore, in order to realize the value of citizen participation, the topic and process for participation should be more specific, light and engaging so that it alleviates the pressure put on non-expert citizens.

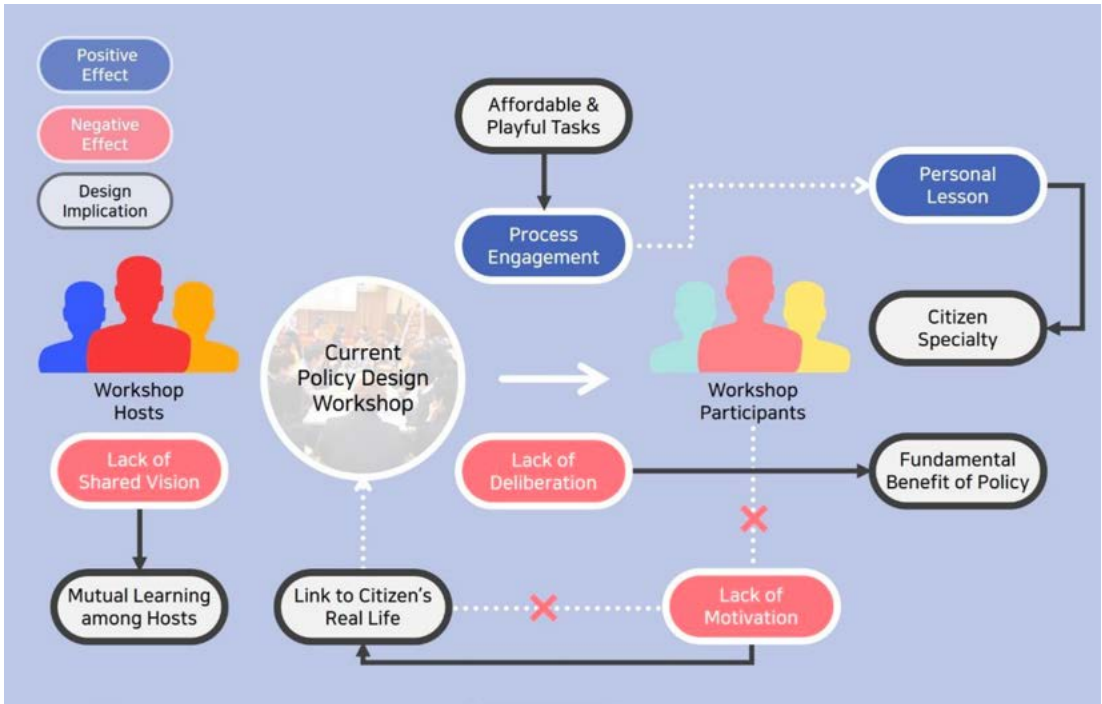


Figure 6 Current states of policy workshop design and design implications for civic engagement

Workshops and other types of participatory channels should be integrated into a long-term project, and not as individual one-off events. Finally, we should consider policy provider groups (government) as a target of engagement, in addition to policy beneficiaries (citizen). In order to employ design in practice, the provider group should experience and understand the value of design during participation. Therefore, before designing some interventions for engaging citizens in the participatory process, understanding the perspective of provider group and their substantive working environments and motivations should come first.

5. Conclusion

The research investigated a practical case of policy design workshop in South Korea to gain empirical findings and insights for future policy design workshop. In the results, two positive effects, three negative effects of current

workshop design on participants' engagement were identified, from which design implications were formulated for policy design workshop for civic engagement (Figure 6).

It was found that design can engage participants in workshop activities by providing affordable and playful tasks, which in turn can lead them to get a personal lesson such as a sense of self-efficacy and social responsibility in policy participation. This implies that citizens can become more mature ones through policy workshop design so that they can better reflect their specialties as mature citizens, such as defining policy needs, values and vision from the perspective of citizens, on a policy development process.

On the other hand, it was found there still remained a lack of deliberation within policy discussion of the workshop, which excluded the less engaged participants from the discussion. The workshop did not provide enough time and guide for the participants to discuss and

determine what a good policy is, hence it was observed that they tended to prefer instant and superficial policy solution. Therefore, future workshops should be considered how to engage participants to consider fundamental policy benefits.

Another limitation was the lack motivation for sustainable participation. In order to secure substantive effects of the workshop on real policy development process, it is necessary to encourage citizens to be interested and participate in the policy process at a long-term level. Therefore, a policy design workshop should provide them with a link between the workshop and their real life so that they can feel substantive benefits of participating the workshop.

The final limitation was the lack of shared vision setting among the workshop hosts since the policy practitioners (e.g. civil officials) had a different purpose of holding workshop from designers. They regarded the workshop as a mere means of satisfying administrative mandatory. They need to understand original value of design in policy workshop (understanding citizen needs) and on the other hand, designers also need to understand unique condition of public administration. Therefore, it should be considered to provide an opportunity of mutual learning among policy and design practitioners at earlier stages of planning workshops.

This paper concludes that citizen engagement is a significant component of a policy design workshop, and proposes specific conditions of a policy context in adapting design values. Based on our findings, we suggest the following methods - including but not limited to, living lab studies, developing new workshop methods and exploring new types of platforms or new ways of interventions - to be conducted in the future.

References

- 1 Beierle, T. C., & Konisky, D. M. (2000). Values, conflict, and trust in participatory environmental planning. *Journal of Policy analysis and Management*, 19(4), 587–602.
- 2 Corbett, E., & Le Dantec, C. A. (2018). Exploring Trust in Digital Civics. In *Proceedings of the 2018 on Designing Interactive Systems Conference 2018* (9–20), Hong Kong, ACM.
- 3 Durose, C., & Richardson, L. (2015). *Designing public policy for co-production: Theory, practice and change*. Policy Press.
- 4 Irvin, R. A., & Stansbury, J. (2004). Citizen participation in decision making: is it worth the effort?. *Public administration review*, 64(1), 55–65.
- 5 Kim, C., & Nam, K. Y. (2017). Policymaking and the Design Workshop: A New Business Direction. *Design Management Review*, 28(4), 14–20.
- 6 Kim, C., Kwon, Y., & Nam, K. (2017). User-Involved Design for Direct Citizen Participation in Policymaking: Adaptive Values, Adaptive Conditions and Common Ground. In *Proceedings of the 2017 Design Management Academy Conference*, (613–629) Hong Kong
- 7 Muller, M. J. (2003). Participatory design, In the third space in HCI. *Human-computer interaction: Development process* (165–185).
- 8 Ng, D. (2014). Citizen-centric public policies and services through design, In *Proceedings of the 19th DMI: Academic Design Management Conference*.
- 9 Roberts, N. (2004). Public deliberation in an age of direct citizen participation. *The American Review of Public Administration*, 34(4), 315–353.
- 10 Sanders, E. N. (2000). Generative tools for co-designing. In *Collaborative design* (3–12). Springer, London.
- 11 Santos, R., Antunes, P., Baptista, G., Mateus, P., & Madruga, L. (2006). Stakeholder participation in the design of environmental policy mixes. *Ecological economics*, 60(1), 100–110.
- 12 Stickdorn, M., Schneider, J., Andrews, K., & Lawrence, A. (2011). *This is service design thinking: Basics, tools, cases* (Vol. 1). Hoboken, NJ: Wiley.
- 13 UKD Council. (2013). Design for public good. *Annual Review of Policy Design*, 1(1), 1–50.

- 14 Whicher, A., Swiatek, P., & Thurston, P. (2016). Trends in design and government in Europe. *Design Management Review*, 27(1), 44–50.
- 15 Whicher, A., Swiatek, P., & Cawood, G. (2013). *SEE platform policy booklet*, in *An overview of Service Design for the Private and Public Sectors, Seeplatform*
- 16 Wynne, B. (2007). Public participation in science and technology: performing and obscuring a political–conceptual category mistake. *East Asian Science, Technology and Society: An International Journal*, 1(1), 99–110.
- 17 Yoon, S. W. (2015). A study of public service design model for citizen–centered public policy (Doctoral dissertation). Available from RISS.(URL: <http://www.riss.kr/link>).