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Analysis on the utilization of co-design practices for developing consumer-oriented public service and policy focusing on the comparison with western countries and South Korea

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Abstract

Service design methods have recently been applied to the areas of public services and policies development reflecting the needs of consumers. However, domestically, due to the lack of understanding of service design among many policy makers, service design is utilized as a piecemeal approach in practice. In that regard, this paper analyzes six cases using service design methodology in public service and policy development in Western countries and South Korea. The data relevant to each case was collected from desk-based secondary data and in-depth interviews. The analysis was focused on the use of co-design tools in each step of a co-design process relative to the levels of participants and the roles of designers. The analyzed cases showed the countries of the West utilized the co-design tools considering the understanding and active involvement of stakeholders, whereas domestic co-design tools were used without considering stakeholders, indicating a greater involvement of service designers in each step than that of consumers.

KEYWORDS: co-design process, co-creative tool, public service and policy development, role of service designers

1. Introduction

1-1. Background and Objective

Design has been extending its scope to public policy and service development utilizing some service design methods attentive to the needs of policy consumers. However, service design is mostly used as a piecemeal approach or as a formal tool to impart some validity to decisions made by public institutions due to policymakers' lack of understanding of its essence. Particularly, as the public service development limits the roles of 'design' to visual outcomes, the collaboration with stakeholders in policymaking using a range of co-design tools fails to apply the design thinking. Hence, this study aims at the following. First, focused on the utilization of co-design tools as a service design approach to public service and policymaking, this study analyzes overseas cases of service co-design tools utilized in public service and policymaking. Second, this study analyzes domestic cases of the 'Citizens Policy Design Group' utilizing the service design in public service and policymaking and compared the findings with those of the West. Third, based on the comparison between Western and domestic cases of co-design tools in public service and policymaking, this study provides some implications for a further use of co-design tools with diverse stakeholders and for relevant roles of service designers.

2. Theoretical rationale

2-1. Understanding the public service and policymaking process

Howlett & Ramesh (2003) sub-divided the policy design process into 'policy formation – policymaking – policy implementation – evaluation' steps. The policy formation involves uncovering problems and determining the needs for appropriate policies accordingly. The policymaking involves defining and clarifying problems that surface. The policy implementation involves a process of actually creating new policies. The evaluation involves citizens' evaluation. The 'policy formation and making' steps are driven by policymakers, whilst the 'policy implementation and evaluation' steps are the roles of policy actors and meant to implement products and services embodying the policy intentions manifested in the preceding steps. The salient problem of the policy development process is that any problems in the earlier steps of policy development are perceived by not consumers but suppliers before they are raised and led to policies. Therefore, the resultant supplier-oriented policies fail to attend to the interactions with consumers (Koo, 2016). Also, the conventional policy development process provides diverse participatory routes such as forums and hearings to gather extensive opinions from consumers, which however is too limited to reflect the majority opinions (Gov 3.0 Citizens Policy Design Group Operation Manual, 2016). To address the challenge by applying a service design method to a policymaking process, a policy service need be customized for its consumers by involving them in the policy development process, instead of a supplier-oriented top-down or bottom-up approach in the agenda-setting step. Also, a policy service based on consumers' experiences and potential needs is attainable by utilizing a range of co-design tools in collaboration with stakeholders, not general solutions to problems surfacing in policymaking.

2-2. Understanding co-design

Definitions of co-creation and co-design vary across disciplines. Sanders & Simons (2009) described co-creation as an extensive term used in a wide range of fields, and defined it as more than two people sharing an experience and engaging in a creative activity. Prahalad (2004) defined co-creation as consumers collaborating and interacting with businesses and government agencies to define and solve problems through their experiences. Sanders & Simons (2009) associated co-design with co-creation, remarked collective creativity arose

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when co-creation was implemented via co-design in the whole process and stated co-design was a specific case of co-creation (Sanders et al., 2008). In addition, Holmlid et al. (2015) defined co-design as indicating a broad range of creative and collaborative activities in design, whilst Yoo D et al. (2013) defined it as a process of collaborating with stakeholders for any expression of creativity. According to Yoo D et al. (2013), co-design evolved from a participatory design and was based on a user-oriented design. In short, co-design may be defined as diverse design activities that enable designers to engage in co-creation with multiple stakeholders (or non-designers) with intent to realize collective creativity.

2-3. Roles as designers and participants in co-design process

A co-design process is intended to identify problems and find solutions as a process of exploring future alternatives and clarifying solutions through specific approaches (Burns et al. 2006). Co-design processes involve diverse methods and vary with the types of service industries and providers (Hong, et al., 2012). Amongst all, the UK Design Council's 'Double Diamond Design Process Model' is widely used and comprised of 4 steps, i.e. 'Discover – Define – Develop – Deliver', whilst the U.S. design consulting firm IDEO's HCD Process consists of 'observation – brainstorming – rapid prototyping – implementation'. In contrast, Holmlid et al. (2015) presented a four-step co-design process for service innovation: 'insight generation - concept exploration – convergence – implementation'. The process suggested by Holmlid et al. (2015) is focused on co-design acts in a project development process utilizing various co-design tools fit for the goal of each step. First, the insight generation step defines the relations with stakeholders and the scope of a project. According to Holmlid et al. (2015), the insight generation utilizes diverse tools such as 'probes', 'changing roles' and 'context mapping storytelling' to allow stakeholders to easily understand problems and express their opinions. The concept exploration involves experiments and workshops to make prototypes and explore, reify and deliver concepts with the 'speed sketching' tool designed to compose the worst and best scenarios and other tools such as the 'magical things' tool that helps users to realize their potential capacities via multifarious materials. The convergence step employs different methods of visualization for communication prior to the delivery of a service using the 'service walk through' and 'experience prototyping' tools to help users presuppose the entire services, laying the foundation for the participation in service development. The implementation step pursues sustainable co-design activities instead of setting a goal of long-term social change, interacts with future users and implements a service process, which involves documenting the services, guiding stakeholders to partake in and adapt to newly applied services and using a broad range of 'design games' for 'collaboration and ideation'(ibid).

Regarding the roles of participants in a co-design process, Lorenz Aggens (1983) categorized users' participation into 6 steps (i.e. The Unsurprised Apathetics'-The Observers'- The Reviewers'-'The Advisors'-Plan-Makers'-'The Decision Maker'). First, the Unsurprised Apathetic users are characterized by low levels of participation and understanding of projects and the unwillingness to express their intention for participation. Second, the Observers are interested in participating in projects but will not actively express their opinions or ideas. Third, the Reviewers participate in project-related programs and activities and carry out the roles as project members. Fourth, the Advisors complete separate programs on projects and provide experts with ideas relevant to projects. Finally, the Decision Makers are defined as the most active participants having the final say. Druin(2002) classified the roles of participants in a participatory design process into 'users, testers, informants and design partners.' First, 'users' personally use the outcomes including products, services, technologies and designs to provide their own experiences. Second, 'testers' like 'users' evaluate the outcomes instead of participating in a process. Third, 'informants' take a step further than 'users' and 'testers,' providing their own experiences or information throughout the whole process of design. Finally, the 'design partners' show the highest level of participation, actively being involved in each process on equal terms with designers to express their opinions. The roles of designers vary with different levels of participants. Sanders & Stappers (2008) defined four roles (i.e. lead-guide-provide-offer) of designers matching up

with the levels of participants. First, designers lead participants, continuously motivating them for seamless communication when participants find a meaning in their participation. Second, designers ‘guide’ participants through some approaches and directions for participants to express their opinions or ideas after using existing products and services. Third, designers ‘provide’ participants with how to express their opinions and ideas for their active participation. Finally, designers ‘offer’ some in-depth situations to help derive diverse ideas when participants are capable of giving some insight in their own words. Hence, stakeholders at different levels of participation, the roles of participants in co-creation, and the roles of designers conforming to the levels of participants are perceived as important.

3. Criteria for case selection and frame analysis

The projects organized by the UK Policy Lab and Design Council and the U.S. IDEO were selected as successful overseas cases of utilizing the service design method in public service and policymaking. Likewise, domestic projects led by central and municipal governments in 2015 based on the ‘Citizens Policy Design Group’, an established civic participatory policy design platform, were analyzed.

Each case and its co-design approaches were analyzed in terms of the four steps suggested by S. Holmlid et al. (2015), i.e. insight generation, concept exploration, convergence and implementation, as outlined in Table 1. Next, the participation and involvement levels of stakeholders and designers were analyzed in light of the participants’ roles in Druin’s (2002) four-step participatory design process, i.e. users, testers, informants and design partners. However, with consumers emerging as design partners in recent public service and policymaking, this study added another participation level, i.e. ‘co-creator’, to Druin’s(2002) concept of design partners, to analyze the roles of designers and participants in their interactions to define problems and implement solutions on equal terms for co-creation. Table 2 outlines the roles of participants relative to their participation levels. In addition, to determine the roles and involvement of designers in relation to the participation levels of stakeholders, this study used Sanders & Stappers’ (2008) 4 roles of designers (i.e. lead, guide, provide and offer), and analyzed an additional role as ‘faciliators’ in that the role of design as a facilitator in favor of active engagement and mutual understanding benefits the seamless interactions among stakeholders in service design. Table 3 outlines the roles and involvement of designers relative to different levels of participants in co-design process of interest.

| Co-design process | | |
|-------------------|---------------------|--|
| Co-design process | Insight generation | Defining relations with stakeholders and project scopes |
| | Concept exploration | Prototyping and building concepts to deliver at workshops |
| | Convergence | Communicating with stakeholders via diverse pre-service visualization |
| | Implementation | Building a service process where sustainable co-design activities enable interactions with potential users |

Table 1. Four steps of a co-design process

| Roles as designers relative to stakeholders’ participation levels | | |
|---|-------|---|
| Designer involvement | Lead | Designers continue to lead participants for effective communication when participants find it meaningful to participate |
| | Guide | Designers guide participants to express their ideas about existing products and services |

| | | |
|--|-------------|--|
| | Provide | Designers provide participants with a need to extend their ideas and a way of expression to give information |
| | Offer | When participants for themselves derive some insight and express their creative ideas, designers offer some specific situations relevant to the services to be implemented |
| | Facilitator | Designers help participants with design thinking, coordinate diverse opinions of participants and encourage them to effectively engage in a co-design process |

Table 2. Designers' roles relative to stakeholders' participation levels

| | | Roles as participants in a participatory design process |
|---------------------|----------------|--|
| Participation level | User | Participants provide personal experiences of products, services or other outcomes |
| | Tester | Participants test the outcomes of already produced products and services rather than a direct participation |
| | Informant | Participants go one step further than testers to actively share personal experiences and information throughout a design process |
| | Design partner | Participants most actively cooperate with designers in a process |
| | Co-creator | Participants interact with designers for co-creation on equal terms in defining problems and formulating solutions |

Table 3. Roles as participants relative to stakeholders' participation levels

4. Case Study

4-1. UK CJS (Criminal Justice System) Service

The online crime report service provided by the Policy Lab under the auspice of the UK government is a case of a government service utilizing a suitable stepwise co-design tool for diverse stakeholders (Policy Lab, 2015A). The insight generation allowed all stakeholders as informants to attend an idea workshop, followed by an experience prototyping based on the insight derived to map out a service space and predict the service, while the service designers collected the stakeholders' ideas. In this process, participants worked as design partners while designers 'offered' some specific situations. Second, in the concept exploration, they composed service scenarios based on the foregoing insight, and service designers visualized the service based on the scenarios. In this step, stakeholders participated as informants, while participants presented insight derived using the co-design tool in the preceding step, with the service designers involved as providers for more effective visualization. In the convergence step, all stakeholders were engaged in the paper prototyping of the specific content of the service and designed the features and problems of each service. Here, stakeholders and service designers collaborated, with the former participating as co-creators and the latter minimizing their involvement as facilitators assisting the former. In the implementation step, in collaboration with online experts, they implemented the CJS (Criminal Justice System) online service, which enables consumers to conveniently cope with local crime issues online without having to calling the police for reporting crimes.

| | |
|-----------------------|--------------------------------------|
| Field | Policy Lab / Online criminal service |
| Organizational status | Government agency / UK Policy Lab |

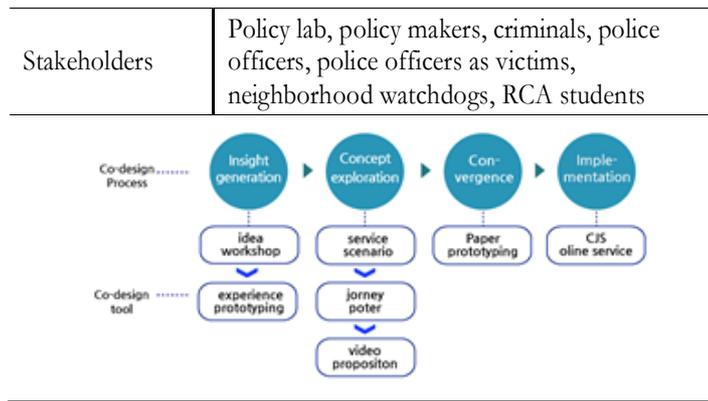


Figure 1. Co-design process for UK CJS (Criminal Justice System) online project

| Co-design process | Insight generation | | Concept exploration | Convergence |
|-----------------------|---|---|--|---|
| Co-design tool |  |  |  |  |
| | Idea workshop | Experience prototyping | Service scenario | Paper prototyping |
| Roles as participants | Informant | Design partner | Informant | Co-creator |
| Roles as designers | Provider | Offer | Provider | Facilitator |

Table 4. Co-design tools for UK CJS (criminal justice system) online project

4-2. Ghanaian sanitation opportunities with ‘Clean Team’

The ‘Clean Team’ project led by the US IDEO is a case of collaborating with a range of specialized agencies with intent to improve the unhygienic toilets for Kumasi residents (The Field Guide to Human-Centered Design, 2015). In the insight generation step, they observed consumers and performed shadowing, while the residents participated as informants in interviews and research using idea cards intended to collect the information about hygienic conditions they needed. Service designers derived broad insight from the stakeholders by using idea cards and being involved as providers. Then, based on the ideas derived from user research and workshops, in the concept exploration step, they developed a business model relevant to toilet prototypes which were inexpensive, clean and convenient in consultation with an expert group. Through a number of workshops, they developed and provided different versions of portable toilet prototypes for Kumasi citizens, who in turn used the prototypes and gave feedback to the IDEO about preference, maintenance and reasonable prices, participating as informants. Also, the service designers used the feedback to design a service associated with many other fields. Hence, the ‘Clean Team’ project successfully established a service process involving portable toilets for clean and healthy life of Ghanaians and garbage collection in collaboration with multiple agencies.

| | |
|-----------------------|---|
| Field | Public service |
| Organizational status | Private organization / IDEO(US) |
| Stake-holders | IDEO, Kumasi citizens, IFUP, Unilever, WSUP |

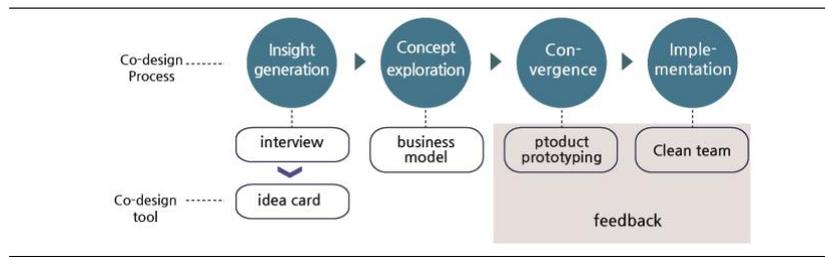


Figure 2. Co-design process for Ghanaian sanitation opportunities with 'clean team' project

| Co-design process | Insight generation | | Concept exploration | Convergence |
|-----------------------|---|---|--|---|
| Co-design tool |  |  |  |  |
| | interview | idea card | business model | produce prototyping |
| Roles as participants | Informant | Informant | User | Informant |
| Roles as designers | Provider | Provide | Guide | Provider |

Table 5 Co-design tools for Ghanaian sanitation opportunities with 'clean team' project

4-3. 'Knee High Design Challenge' for UK children's welfare

The 'Knee High Design Challenge' initiated by the UK Design Council is a public welfare project for children in impoverished areas (Knee High Design Challenge: Solutions Paper, 2016). Policy makers, private entrepreneurs and parents teamed up to undertake the welfare program for children and parents in poverty. In the insight generation step, expert and consumer groups participated as design partners to observe children in poverty and conceive specific ideas. In the concept exploration step, they created service scenarios based on workshops to develop the service concept of each team. The stakeholders participated as co-creators to collaborate with the team members in coming up with service scenarios. In the convergence step, they carried out the service experience prototyping based on the service scenarios. The service designers were involved in the process as facilitators for a tangible and effective service implementation. Also, in this case, they continued to hold workshops for children and teams to test the outcomes, with all participants serving as co-creators. As a result, they successfully established the 'Creative Homes' service involving experts from many different fields and ensured an easy accessibility to facilities for children, a continuous positive daily life for families and self-confidence and empowerment for parents. Also, as an additional service leveraging technology, they developed an app offering clear and easy-to-access information about a broad range of activities and supports for children aged 5 and under. Also, the interactive 'Pop Up Park' service allows parents and children to play diverse games while interacting. This case of utilizing a co-design process shows local governments and policymakers that a new service or product can contribute to health and welfare of local residents.

| Field | Public service |
|-----------------------|---|
| Organizational status | Non-governmental organization / Design Council |
| Stake-holders | Public policy makers, local parents, children, public health and children's development staff |

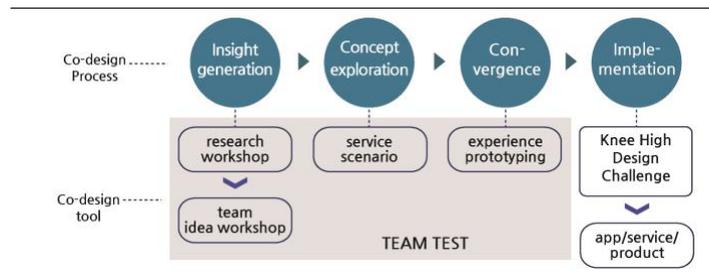


Figure 1 Co-design process for 'Knee High Design Challenge' project

| | | | |
|-----------------------|---|---|---|
| Co-design process | Insight generation | Concept exploration | Convergence |
| Co-design tool |  |  |  |
| | idea workshop | service scenario | experience prototyping |
| Roles as participants | Design partner | Co-creator | Co-creator |
| Roles as designers | Offer | Facilitator | Facilitator |

Table 6 Co-design tools for 'Knee High Design Challenge' project

4-4. UK 'GP Medical Service'

The 'UK Medical Service' led by the UK Policy Lab is a case of stakeholders holding workshops before the enforcement of the relevant policymaking process (Policy Lab, 2015B). In the insight generation step, participants in the workshops formed 3 teams to derive a persona from a three-step visiting to clinics, and were given the challenge cards prescribing specific situations. The stakeholders participated as informants providing some information about many different situations that might arise, while the service designers provided specific situations and tools. In the concept exploration step, they analyzed problems relevant to patients' experiences of GP surgeries derived from the workshops and redesigned the service, assuming patients could see doctors with no wait time, to perform the service experience prototyping. Here, different stakeholders participated in these activities as design partners to create ideas combined with diverse technologies and to share them in creative ways. In this process, the service designers offered how to implement the service and use the co-design tools. Also, they performed a role play in the service space they implemented in the convergence step. Here, the stakeholders participated as co-creators to formulate an actual service, while the service designers served as facilitators. This case of an inhouse workshop within the government provides insight for policymakers into how consumers will interact with a new service before a policy is enforced.

| | |
|-----------------------|---|
| Field | Public service |
| Organizational status | Government agency - Policy Lab |
| Stake-holders | Policy Lab and policy makers not only in the fields of taxation and pension but also in Scottish government and UK Trade & Investment |

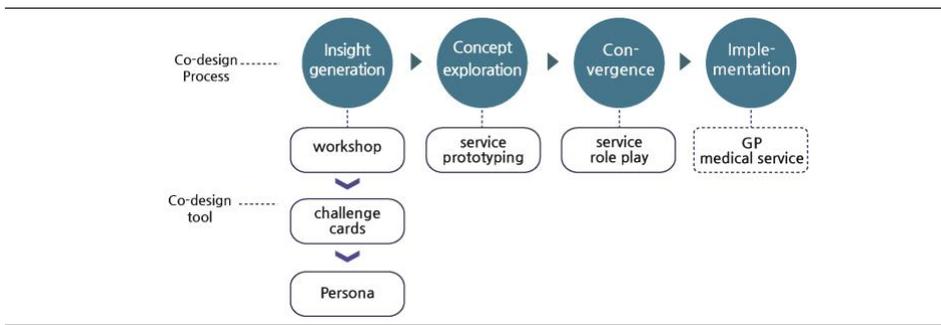


Figure 4. Co-design process for UK 'GP Medical Service' project

| Co-design process | Insight generation | Concept exploration | Convergence |
|-----------------------|---|---|---|
| Co-design tool |  |  |  |
| | workshop | service prototyping | service roleplay |
| Roles as participants | Informant | Design partner | Co-creator |
| Roles as designers | Provide | Offer | Facilitator |

Table 7 Co-design tools for UK 'GP Medical Service' project

4-5. Implications of Western public policy and service cases

The analysis of the aforementioned overseas cases in terms of the co-design process and stakeholders' participation levels in the public service and policymaking process shed light on the following. First, despite the different attributes and outcomes of the projects, the four cases largely underwent four steps of the co-design process, i.e. insight generation, concept exploration, convergence and implementation. Notably, the stakeholders actively utilized the co-design tools in the 'convergence' step to conceptualize the services. Mostly, consumers participated as co-creators, whose participation level was highest in the convergence step where actual services were formulated. Therefore, designers served as 'facilitators' defining problems based on consumers' insight and collaborating with participants and experts to realize consumer-oriented services.

Co-design tools involved different types of prototyping. The UK GP Medical Service adopted the 'service experience prototyping,' which predicted the service settings and stakeholders, who used boxes, color paper and clay to express insight. The IDEO's 'Clean Team' had experts apply consumers' insight to 'product prototyping,' which allowed consumers to test the usability of products and alter them accordingly prior to the service implementation. The prototyping tools suitable for different types of services were salient in the Western cases and varied with the completeness of implementation and the purposes of the services over time. The early prototyping was used to define overall service and space settings and to gain ideas, whereas the late prototyping was used to materialize the derived insight and to test the final services, which paralleled those to be implemented. That is, the co-design tools utilized in each step of public service and policy development imply the following. First, the policy formation, or insight generation, involves a project specific 'idea workshop' and consumer oriented research to determine policy stakeholders' demands and perception of problems. Second, the concept exploration, or policymaking, involves 'service

scenarios' and 'rapid prototyping' to predict and visualize a service and redefine the foregoing problems. Third, the convergence for policy implementation involves prototyping a service and goods (e.g.'CJS Online Service' project's 'paper prototyping' and 'Clean Team' project's 'product prototyping') or 'experience prototyping' of service space when an idea about a service is materialized (e.g. Knee High Design Challenge'). The prototyping tools predict various situations that may arise among stakeholders in service settings. For example, the 'service role play' utilized in the 'GP Medical Service' project predicted the service space and defined each stakeholder's role. Finally, the policy implementation or enforcement involves implementing and evaluating a service and an iterative process of returning to the preceding process, if problems arise, to define problems and redefine stakeholders' demands.

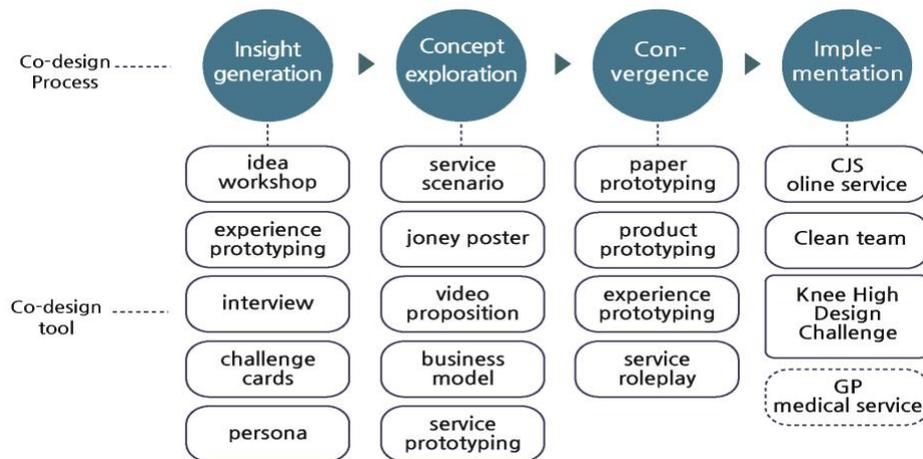


Figure 5 Analysis results of co-design tools utilized in co-design processes in the West

5. Analysis of domestic public service and policymaking

The following sections analyze the utilization of co-design tools in the public service and policymaking process in Asian culture, focusing on Korea's participatory policy design platform, 'Citizens Policy Design Group'. The analysis findings are compared with those of the West to suggest the desirable utilization of co-design tools and the roles of service designers in domestic public service and policymaking.

5-1. Overview of 'Citizens Policy Design Group' initiative

In domestic policymaking process, the government draws on the 'Citizens Policy Design Group' to pursue a consumer-oriented service in replacement of the existing supplier-oriented policy service (Yoon, et al. 2014). The 'Ministry of Government Administration' and the 'Ministry of Industry, Trade and Energy' have collaborated with a design-related public entity, 'Korea Institute of Design Promotion' for the 'Citizens Policy Design Group' utilizing the service design methods. Since 2014, 26 government agencies and 10 metropolitan cities have piloted the 'Citizens Policy Design Group.' In 2015, 248 policy projects adopted the initiative. In 2016, 382 policy projects for consumer-oriented policy services employed the initiative, involving 44 central government agencies and 338 municipalities. The Citizens Policy Design Group consists of a service design functioning as an expedition guide, two civil servants serving as policy guides(one in charge of Citizens Policy Design Group and the other of projects), and citizens as expedition members(1 expert, 2 design majors and 3 policy consumers)(Gov 3.0 Citizens Policy Design Group Operation Manual, 2016). The Citizens Policy Design Group builds a sense of fellowship and trust between civil servants

and citizens, laying the foundation for interactions (Gov 3.0 Citizens Policy Design Group, 2015).

5-2. Analysis of 'Citizens Policy Design Group' Operation Process

The 'Citizens Policy Design Group' originally aimed to involve citizens in the government's public service and policy development process by adopting service design methods (Gov 3.0 Citizens Policy Design Group Operation Manual, 2016). The initiative has borrowed from a service design process, or the 'Double Diamond' model. Its process comprises 'Understand – Discover – Define – Develop - Deliver' steps, each of which sets service design methods, goals and stakeholders' roles to perform a project (Case-based Citizens Policy Design Group Operation Manual, 2017).



Figure 6 Process of Citizens Policy Design Group

5-3. 'Citizens Policy Design Group' cases selected

Among 20 cases covered in the success case book out of 248 'Citizens Policy Design Group' projects in 2015, notably successful cases of the central and local government agencies were selected to determine the differences in the characteristics of concerned agencies and the processes in relation to the typology of services. As in the analysis of overseas cases, co-design tools used in each step of a co-design process, stakeholders' participation levels and designers' involvement were analyzed. For an in-depth analysis of tools utilized in each project, the service designers and officers in charge who joined the 'Citizens Policy Design Group' were interviewed. The findings on the 'Citizens Policy Design Group' were compared with those on overseas cases to find out differences and similarities and thus to derive implications for general trends in utilizing design in public service and policymaking.

6. 'Citizens Policy Design Group' cases study

6-1. Central government's 'Citizens Policy Design Group' project: Police Agency's 'Happy Town with CPTED'

The 'Happy Town with CPTED' project utilizing the 'Citizens Policy Design Group' organized by the National Police Agency in 2015 commenced following the traumatic experience of violent crimes in Jidong, Incheon to address the problems related to the existing hardware environment improvement (Gov 3.0 Citizens Policy Design Group Success Case Book, 2015). The insight generation involved a workshop to discuss the community security issues, an on-site analysis to investigate the town's issues and a field research with interviews, surveys and observation including a 'journey map'. While interviewing the officer in charge participating in the project, the service design method was utilized to develop a consumer-oriented policy, which received a partially positive response.

Yet, the officer in charge failed to find meanings about his roles in the group due to the unfamiliar design-oriented method and terminology used in the preceding step, leading to a low empathy with the utilization of service design methods in policymaking process. Thus, service designers led the interview and observation while stakeholders participated as informants. The concept exploration involved research, workshops and brain storming sessions to derive a concept that 'Jidong is safe enough to visit and stay'. The stakeholders used their specialized knowledge and participated as design partners, whereas the service designers collected stakeholders' opinions. Then, they derived ideas such as a community center, a security center and intelligent street lights with CCTV cameras and composed relevant service scenarios, while the service designers used LEGO blocks to visualize the service settings. Also, the 'Citizens Policy Design Group' developed many other space and service settings including experience and education programs to reinforce the existing CPTED project and improve the 'environment, behavior and awareness'.

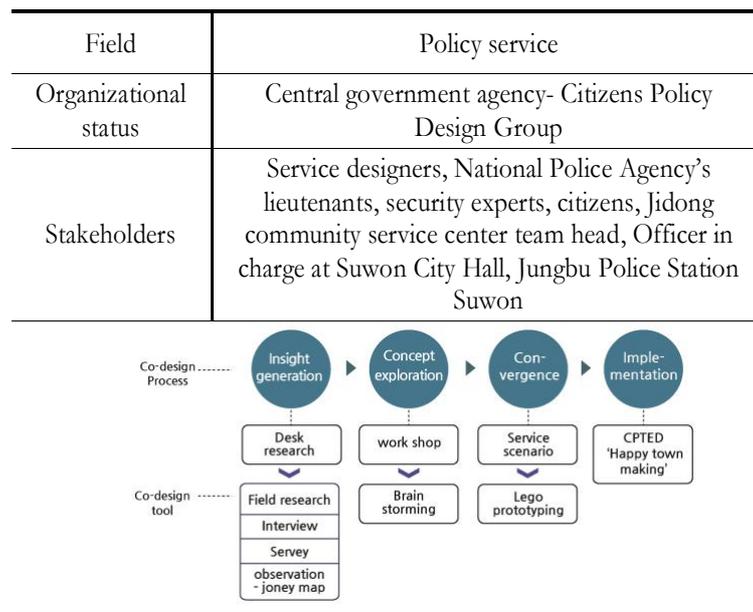


Figure 7. Co-design process for Police Agency's 'Happy Town with CPTED' project

| Co-design process | Insight generation | Concept exploration | Convergence |
|-----------------------|---|---|---|
| Co-design tool |  |  |  |
| | Interview | Brain storming | Lego prototyping |
| Roles as participants | Informant | Design partner | Design partner |
| Roles as designers | Provide | Offer | Offer |

Table 2 Co-design tools for Police Agency's 'Happy Town with CPTED'

6-2. Municipal government's 'Citizens Policy Design Group' project: 'Young Jeonnam with Youth+Work'

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Analysis on the Utilization of Co-design Practices for Developing Consumer-oriented Public Service and Policy from the Viewpoint of Service Design

Linköping University Electronic Press

Jeonnam municipal government's citizens design project titled 'Young Jeonnam with Youth + Work' in 2015 was intended to boost the municipality's economy by reversing the falling trend in its young population which was already below the national average (KIDP, 2015). The Citizens Policy Design Group included policy consumers, youths, officer in charge, entrepreneurs, service designers and undergraduates. The insight generation involved a brain storming workshop to share ideas on 'Why youths?' with participants acting as design partners. The ideas coupled with the '5 Whys' technique clarified the lack of youth policy options, government-driven initiatives lacking in differentiation from other municipalities and other reasons for young people to opt out of Jeonnam with participants serving as informants. From the defined problems they derived a persona representing the young locals to materialize the ideas as a consumer journey map charting a process of a young man returning to Jeonnam from Seoul.

Yet, the ideas derived in the insight generation step did not undergo the prototyping but went straight to solutions after interviews, which was attributable to stakeholders and consumers' failure to presuppose specific services and give profound insight into problems. That was why general solutions to problems derived in the preceding step arose from the service modeling in the convergence step. The service designers implemented an 'emergency stand-by' service by developing a model based on the ideas derived from the overall process. This project resulted in a service including information such as success stories and technical supports for returning farmers and young entrepreneurs.

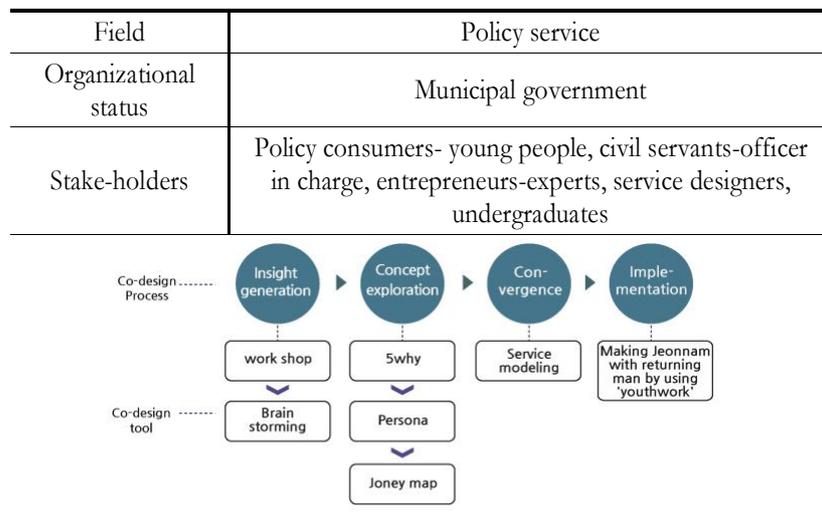


Figure 8. JEONNAM GOVERNMENT's Young Jeonnam with Youth+Work

| Co-design process | Insight generation | Concept exploration | | Convergence |
|-----------------------|---|---|--|---|
| Co-design tool |  |  |  |  |
| |  |  |  |  |
| | Brain storming | Persona | Journey map | Service modeling |
| Roles as participants | Design partner | Informant | | Tester |
| Roles as designers | Designer as offer | Provide | | Guide |

Table 9. JEONNAM GOVERNMENT'S Young Jeonnam with Youth+Work

6-3. Implications of domestic 'Citizens Policy Design Group' cases analyzed

The analysis of the domestic cases of 'Citizens Policy Design Group' projects showed the following co-design processes and participation levels in public service and policymaking. The participation levels in both central and municipal governments' 'Citizens Policy Design Group' projects as well as the co-design tools utilized in the co-design processes varied. Still, 'brain storming' was used as a co-creation activity understandable to participants. Specifically, the central government agency used in the convergence step the 'LEGO prototyping' as a co-design tool to derive ideas, with stakeholders utilizing their experiences and specialized knowledge while participating as 'design partners'. By contrast, the municipal government derived ideas directly from the workshop followed by a 'persona' and 'journey map' in the concept exploration, prior to the 'service modeling'. This case applied the service design method but skipped over the insight generation, which decreased the participation level. That is, in comparison to the co-design tools utilized in the advanced cases of the West, domestic cases were characterized by the tools requiring greater roles and involvement levels of designers and by specialized tools unfavorable for stakeholders' active participation and expression of profound insight. As designers played predominant roles, it was difficult to derive consumer-oriented insight, resulting in general solutions to superficial problems.

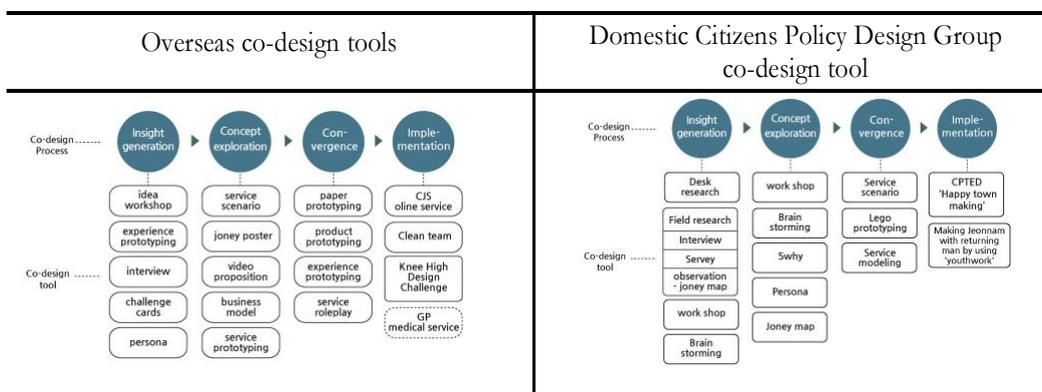


Figure 9. Overseas vs. domestic co-design tools

7. Conclusion

This comparative analysis of overseas and domestic cases of public policies and services highlighted the following implications concerning the utilization of co-design tools. First, the overseas cases in advanced countries utilized co-design tools (e.g. GP service utilizing challenge cards and service role playing) that helped policy consumers or stakeholders to easily understand the relevant services, which led to more active participation of consumers in public service and policymaking. In contrast, the domestic case of a municipal government's 'Citizens Policy Design Group' project drew on a specialized service design method, paying less attention to co-design tools reflecting the consumers' understanding (e.g. a persona and journey map). That is, the high involvement of service designers made consumers participate as informants in each step, leaving much to be desired about the consumer-oriented insight. Therefore, the domestic case exposed a limited utilization of co-design tools and the lack of designers' roles in encouraging stakeholders to engage in creative activities. This finding seems ascribable to a paucity of skilled service designers and the government-enforced standardization of service design methods and manuals intended to apply the concept of service design to its public policymaking process in a short period of time. Also, the analysis findings of this study have the following implications concerning the roles of service designers in utilizing a co-design process in public service and policymaking.

First, service designers should be capable of design a co-design process suitable for the typology and scope of a service to be implemented prior to embarking on a public policy and service development project. That is, service designers should estimate the timeline and scope of a project in advance and prepare for a workshop to organize stakeholders as collaborators for the service.

Second, in arranging a workshop with diverse stakeholders, it is necessary to develop a co-design tool that fits the understanding and involvement of consumers as well as the purpose of each codesign step. First, in the insight generation, service designers should utilize tools that enable participants to ponder upon given issues and that allows a swift implementation of their ideas and initial insight. In the concept exploration, service designers should be able to utilize 'service scenarios' and 'rapid prototyping' to fast visualize the insight found in the preceding research and define problems. In the convergence step later in the process, service designers should utilize the most collaborative and active co-design tools to develop an experience prototyping tool conducive to foreseeing the spatial settings and overall experiences of the service of interest. In the final implementation step, service designers should apply a co-design tool capable of evaluating the implemented service and undertake an iterative process of returning to the preceding steps to redefine and confirm any problems that might arise afterwards. Utilizing such a co-design tool will enable project members to continuously define any fundamental problems of a service, and elicit straightforward and effective solutions to such problems.

Third, service designers need to delve into a method of motivating stakeholders and consumers to participate in the process through workshops, which means stakeholders and consumers should continuously impart a meaning to their participation in a project, and personally feel the advancement of the project while partaking in it as a member. For example, it is important to use and deliver a tool that allows stakeholders to communicate their past and present experiences via role playing and story-telling based on impromptu solution scenarios and that borrows from a range of games to facilitate the process as well as voluntary participation of stakeholders and consumers in workshops. In other words, service designers need to develop a co-creative tool based on not specialized methods but stakeholders' understanding and continuously explore how to deliver the progress of the tool to stakeholders.

Lastly, service designers should act as skilled facilitators helping stakeholders to intuitively express their ideas so as to realize the essential value of co-creation in public service and policymaking by virtue of the co-design tools they develop. To that end, developing a

creative and consumer-oriented co-creative tool applicable to the public sector is a core competence required of service designers.

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