Richard Sickinger Peter Baumgartner Tina Gruber-Mücke (Editors)

PURSUIT OF PATTERN LANGUAGES FOR SOCIETAL CHANGE

A comprehensive perspective of current pattern research and practice

Editors: Richard Sickinger, Peter Baumgartner, Tina Gruber-Mücke

Book Design and Page Layout: Wolfgang Rauter, Stephan Längle

www.purplsoc.org

info@purplsoc.org



Creative Commons Licence CC-BY-ND

creativecommons.org/licenses/by-nd/4.0

Edition Donau-Universität Krems

ISBN Paperback: 978-3-903150-43-0

ISBN eBook: 978-3-903150-44-7

Printed on demand in many countries. Distributed by tredition

Krems, October 2018

Every effort has been made to make this book as complete and as accurate as possible, but no warranty or fitness is implied. The information provided ist on an "as is" basis. The authors and the editors/publishers shall have neither liability nor responsibility to any person or entity with respect to any loss or damages arising from the information contained in this book. Responsibility for the information, licencing and views set out in their articles lies entirely with the authors.

We would like to thank all authors, contributors and participants of the PURPLSOC Conference 2017

The objective of the PURPLSOC 2017 world conference was to stimulate the attention for pattern related work, both in the scientific community and the wider public, by showing its broad applicability and richness and bringing application/best practice examples from outside the scientific community into research.

The PURPLSOC platform provides a forum for scholars from a variety of fields as well as for a broad audience of practitioners and students to come together and discuss topics such as:

- » Architecture, Urbanism and Regional Development
- » Design, Media, Arts & IT
- » Pedagogy, Education and Learning
- » Social Activism, Social Innovation and Grassroots Movement
- » Everyday Applications and Additional Disciplines

Ways of Everyday World-Making: Living well with Working and Parenting

Ogo, Iroha

Faculty of Policy Management, Keio University, 5322 Endo, Fujisawa, Kanagawa, Japan

iro8ogo@gmail.com

Iba, Takashi

Faculty of Policy Management, Keio University, 5322 Endo, Fujisawa, Kanagawa, Japan

iba@sfc.keio.ac.jp

Ito, Kimie

Lifestyle Research Center, Kao Corporation, 2-1-3, Bunka, Sumida-ku, Tokyo, Japan itou.kimie@kao.co.jp

Miyakawa, Seiko

Lifestyle Research Center, Kao Corporation, 2-1-3, Bunka, Sumida-ku, Tokyo, Japan miyakawa.seiko@kao.co.jp

This paper presents a pattern language for living well in combination with working and parenting, which we named 'Ways of Everyday World-Making', and shows some examples of its application. The pattern language comprises 34 patterns that suggest ways to live well while working and parenting. Today, many young people in Japan feel insecure about having and raising children while working. Therefore, these patterns were created to help young people reduce their anxiety over becoming a working parent. In this paper, we introduce the concept of Everyday World-Making, theme categories and pattern names, and describe select points in the making process. This paper also goes into detail on some of the workshops we held with students, people working in

companies and working parents. We discuss the future possibilities for generating communication in regard to living well while being a working parent.

Pattern Language; Pattern Language 3.0; Working and Parenting; Quality of Life; Dialogue

1. Introduction

Although raising children while continuing one's job is an enjoyable experience, support from people who are close to working parents is an absolute necessity. The enactment of the Act on Promotion of Women's Participation and Advancement in the Workplace in 2015 and an overall increase in public support has caused a decrease in early retirements due to childbirth and an increase in continued employment after giving birth. However, after more than 30 years since the Equal Employment Opportunity Law was enacted in 1986, only around 50% of the total number of working women continue to work through pregnancy and childbirth (National Institute of Population and Social Security Research, 2015). In addition, only a small proportion (3.2%) of men take childcare leaves from work (Ministry of Health, Labor and Welfare, 2016). In reality, there are not enough practical systems in place for balancing child-rearing and work. As a result of the research conducted through the cooperation of Iba Laboratory and Kao Corporation, it has been revealed that most young people nowadays feel insecure about having and raising a baby while continuing to work.

A simple question comes up to mind: What is necessary, not only in relation to work, for working women to achieve the lifestyle balance that they really want? Many young women want to be successful both in raising their children and in their careers. However, the perceived difficulty in following both the paths means that some women give up on either having a baby or pursuing their career. To address this situation, we conducted interviews with women who have succeeded in maintaining both work and family. We aimed to find the key for keeping a good balance between work and family. Using the results of these interviews, we created a pattern language of 'Everyday World-Making'. Because the language, like a seed, is the genetic system which give our millions of small acts the power to from a whole (Alexander, 1977).

Through the process of creating the leaflet 'Ways of Everyday World-Making', we realized that by doing daily chores, raising children, working and interacting with our social network, we personally build the daily life that we live in.

The 34 tips we provide here were created with the purpose of encouraging people to cherish their lives. These patterns are intended to help the youth recognize the value of both working and raising a family, and to feel proud of oneself while doing it. Below, we demonstrate the process we used to create the patterns, explain the purpose of 'Everyday World-Making', and introduce the 34 patterns.

2. Ways of Everyday World-Making

This chapter describes the concept and structure of 'Ways of Everyday World-Making'. We will also introduce the 'Ways of Everyday World-Making' pattern names and their summaries.

2.1. Concept and target audience

'Ways of Everyday World-Making' is the concept that we, ourselves, 'make the everyday world we live in, including how we 'raise our children, work and spend our own time (Figure 1). Thirty-four different patterns were designed to support this concept.

At first, 'Ways of Everyday World-Making' was targeted towards working women aged in their twenties. Its original goal was to deal with the insecurities these working parents face in terms of balancing work and family. As the method was polished, it came to be what we know as the 'Ways of Everyday World-Making' concept which invites anyone to make use of it, regardless of age or sex.

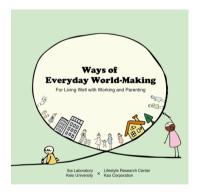


Figure 1: Cover Image of the Ways of Everyday World-Making Patterns

2.2. Categories and patterns in 'Ways of Everyday World-Making'

'Ways of Everyday World-Making' consists of a core "Own World-Making" and seven categories which are shown in Table 1.

Category	Summary
Original Color	There is no correct answer on how to be a working parent or how to live. Discover your own life style.
Smart Juggling	It is difficult to keep a good balance between work and family, but there are some tips to help manage this.
Helping Hands	With the busy day-to-day life of a working parent, there will be times that you try to take it all on by yourself. However, there are many people around you, such as your family or co-workers, who would like to help.
Turning Point	As a working parent, there will be crossroads in which you must choose to keep working or to quit your job. There are patterns for both cases.
Growing with the Child	You may be thinking solely of the growth of your child, but you are growing as a parent as well.
Thoughtful Gift	Although it is important to take time for yourself and your family, as a working parent there will be times that you are too busy to care for both yourself and your family.
Dear Future	Being a busy working parent, it is sometimes difficult to think about the future. This category provides three ideas for the future of your family.

Table 1: Seven categories of Ways of 'Everyday World-Making'

In this section, we will introduce all 34 patterns from the 'Ways of Everyday World-Making'. Number Zero, Everyday World, is the core pattern and explains the concept of 'Everyday World-Making'. Table 2 shows a summary of this pattern. The remaining patterns are categorized into the seven groups mentioned earlier: Original Color (Table 3), Smart Juggling (Table 4), Helping Hands (Table 5), Turning Point (Table 6), Growing with Child (Table7), Thoughtful Gift (Table 8) and Dear Future (Table 9).

CORE	CORE: Own World-Making			
No.	Pattern Name	Pattern Illustration	Context, Problem and Solution	
0	Everyday World		You want to live a lively everyday life in your own way while working and parenting. In this context, even if you are putting in 100% effort, there are times where things are not manageable, and you are torn between parenting and working. This leads you to worry and think, 'What am I even doing?' Therefore, with the mentality that through housework, parenting and working, you are making the 'world' you live in, you, along with your family and colleagues, will continue to make your own unique 'world'.	

Table 2: A pattern in a core category

Origi	nal Color		
No.	Pattern Name	Pattern Illustration	Context, Problem and Solution
1	Natural Balance		There are a number of things you should and want to do: family related, work related and personal matters. In this context, if you try to put the same time and effort into everything, it will become too much to handle and none of it will go well. Therefore, make time to confront your feelings, and think of how to allot the parts of your lifestyle in a way that suits you.
2	Pallet Mixing		You want to keep a good balance between working and parenting. In this context, if you try to separate parenting and working completely, because each responsibility is so great, balancing these two things will end up seeming more difficult. Therefore, mutually make use of the information and realizations gained from parenting and working.
3	Search for Style		You want to be a superior parent. In this context, because parenting is a new thing, there will be a lot of cases in which you will not be sure what to do. Therefore, take into consideration your family member's personalities and current situation, and explore the perfect parenting style that suits your family.

Table 3: Patterns in Original Color

Smar	Smart Juggling		
No.	Pattern Name	Pattern Illustration	Context, Problem and Solution
4	Plenty Simple		In your daily life, small things end up taking up a lot of your time. In this context, if you focus on all the small things and try to tackle them all, you may become preoccupied and end up failing necessary things. Therefore, re-examine for unnecessary things and be sure to make your actions, plans and environment as simple as possible.
5	Compose the Day	TODAY	You have a lot that you need to do, and it seems as though you will not have enough time. In this context, if you try to tackle everything in a random order, there's a chance you will not be able to complete all that you need to in a day. Therefore, lay out all the things you must do on that day and make a plan on how to complete everything.

6	Good Stopping Point	There may be times when your child is hurt or not feeling well, and you will need to suddenly take a break from work. In this context, if you suddenly have to take time off work, not only will you be hindering your co-workers, but you may also build an obstacle in your own work. Therefore, always keep in mind that you may have to miss work the next day and make sure to end each workday at a good stopping point.
7	Quality Chore Time	You are overwhelmed with chores and feel that you are not able to spend enough time with your child, even though you are home. In this context, if there's a chore that needs to be done today, it is easy to postpone the time spent with your children. Therefore, try to work on chores with your child.
8	Favor for Future	How busy you are depends on the state of your work and family. In this context, when busy times at home and work overlap, you end up not being able to achieve the things you can usually do. Therefore, if you have even a little spare time, use that time to finish things in advance.
9	Focus and Simplify	You want to do well in both working and parenting. In this context, when you have limited time and are unable to do your work or housework with the quality you hoped for, you end up stressed and wishing you had done things better. Therefore, if you are able to properly finish the important things, it is okay to postpone other things.

Table 4: Patterns in Smart Juggling

Smar	Smart Juggling		
No.	Pattern Name	Pattern Illustration	Context, Problem and Solution
10	Empathetic Friends		You have worries about your children or work that you want to consult with others about. In this context, you may take everything upon yourself and not rely on anyone else, because it is your family's matter. Therefore, find someone who is in a similar situation or has a similar thinking style and consult with them.

11	Ask for a Gift	FRI	You may have to suddenly change plans due to your work. In this context, if you try to handle everything yourself, things may go badly and create a huge problem. Therefore, express your situation and confide in those around you, and ask for help with the things that are unmanageable.
12	Family News		We do not know what may happen in our life as working parents. In this context, suddenly asking for co-worker's support when you have trouble is something that makes you uncomfortable. Therefore, actively talk about your family to your close co-workers so they can get to know them.
13	Dinner Table Meeting		You perform your role in your family every day. In this context, although things started well, you and your family's feelings become out of sync. Therefore, keep in mind that a household is made by every individual member of the family. Meet and thoroughly talk with everyone about the allotment of chores, everyone's situations and everything else that has to do with the household.
14	Tight-Knit Team		Housework is your responsibility, so you strain yourself to make sure you do it. In this context, when only one member of the family is in charge of everything, if they end up getting sick, the family will not be able to function well. Therefore, make it a habit for everyone in the family to cooperate and share tips on housework.
15	Parent Ally		As they grow older, your child starts to spend more time away from home. In this context, there's no way to know what your children are doing away from home. Therefore, along with the people involved in your child's various communities, watch over your child from multiple perspectives.

Table 5: Patterns in Helping Hands

Turn	ing Point		
No.	Pattern Name	Pattern Illustration	Context, Problem and Solution
16	Job with Joy		It is difficult to make time to spend with your child while balancing your family and work. In this context, by constantly pondering whether you should quit your job for your children's sake or to continue as is, your feelings end up growing darker. Therefore, think of the various experiences you gained through work as precious and joyous things.
17	A Part of Me		You are worried about whether you should quit your job in order to give priority to raising your children. In this context, if you quit your job, you may end up feeling like there's a huge hole in your heart. Therefore, regard it as a way to express your work and yourself and explore ways to continue your work.
18	Invent the Workplace		You think it is possible for you to work more while still raising your children. In this context, if you work according to your company's system and choices, you cannot fully demonstrate your abilities. Therefore, consult with and make suggestions to people from your company about work styles, and operate in such a way to make a more comfortable workplace.
19	Growing Strength		You are thinking of quitting your job to change your work style. In this context, if you feel uneasy about stopping your current career and losing your connection with people, it will be difficult to take that step. Therefore, to create new strong points, try to work with a new level of effort, and think of the strong points you already have and work them into your current job.
20	Follow the Gut		It may be necessary to make a judgement or choose an option in regard to your job and family. In this context, if you make decisions on the basis of surrounding information and advice, you will eventually become out of sync with your feelings and regret your decisions. Therefore, cherish the feeling of 'What do I really want to do' and become honest to your true feelings.
21	Brand New Start		You feel it is difficult to continue working with your current work style. In this context, if you look for a new job with the same kind of work as before, you may feel unsatisfied by the amount and content of work. Therefore, move to a completely different job and think of it as an opportunity to meet a new you.

Table 6: Patterns in Turning Point

Grow	ring with the Child		
No.	Pattern Name	Pattern Illustration	Context, Problem and Solution
22	Share the View		You are getting busier with work and the time you are away from your children is increasing. In this context, if you do not properly talk to your child about your circumstances, the time spent apart will create a distance between you both. Therefore, make sure to talk to your children about your job and current situation.
23	Child in Charge		You want to make your child more accustomed to doing things alone. In this context, if you worry too much about time and efficiency, you might end up unintentionally doing things for your child that they can do themselves. Therefore, devise ways to give your children opportunities to do things that they can do by themselves.
24	Take-Off Chance		You need to ask the people around you to watch your children because of work or other important plans you have. In this context, you feel apologetic towards your children or the people watching them and begin to constantly feel sorry. Therefore, think of your children having connections with people other than their parents as an opportunity to grow, and be brave enough to let your children be away from your side.
25	Journey of Parenting		There is limited time and effort that you can spare for work while raising children. In this context, there are times that you feel you missed experiences or skills that should have been gained through work. Therefore, consider the period of time that you are simultaneously parenting and working as a period of time that you can learn various things.
26	Test for Fit		You want to improve your family lifestyle. In this context, if you avoid new things because you do not know if it will fit your family's lifestyle or if it will have a superior outcome, nothing will change. Therefore, think of yourself as a test subject and try things out, and then decide whether to continue according to the results.
27	Ready for Chance		An opportunity that may lead to your growth has appeared. In this context, by worrying whether you can manage everything, you may miss important opportunities before being able to make a decision. Therefore, think about whether this is an opportunity you do not want to miss, and, if so, prepare yourself to grab it.

Table 7: Patterns in Growing with the Child

Thou	Thoughtful Gift		
No.	Pattern Name	Pattern Illustration	Context, Problem and Solution
28	Reflection Check		You are working hard on balancing both work and family. In this context, even though there are a lot of things that you succeeded at, you tend to focus on the failures or mediocre efforts, leading you to feel as though you are unsuccessful overall. Therefore, recognize that you did well, even in things that you think of as the norm.
29	Time for Favo- rites		You are getting overwhelmed with balancing work and parenting. In this context, by holding back on what you want to do and using parenting or work as a reason, your stress will build up. Therefore, be sure to make time for the things that are indispensable to your lively lifestyle.
30	Gesture of Love		The time you have to spend with family is limited. In this context, if you do not spend enough time with each individual family member, you may gradually drift apart. Therefore, make sure to actively express to each family member that family is the most important thing.

Table 8: Patterns in Thoughtful Gift

Dear Future			
No.	Pattern Name	Pattern Illustration	Context, Problem and Solution
31	Sketch of Future	The same of the sa	You are putting 100% of your effort into what you should be doing now. In this context, if the same lifestyle continues on and on, every day begins to feel meaningless and life's value begins to fade. Therefore, thinking about fun plans for the near future will put color in your life and make it possible to feel the expanse and possibilities from here on out.

32	Warm-up for the Hike	A. A	You have a wish you want to come true or something you want to try someday. In this context, you tend to give up on things you want to do because you think it is difficult to manage alongside parenting and work. Therefore, share your wishes and what you want to do with your family and, where possible, incorporate them into your daily life together.
33	Precious Memories		You make the everyday world you live in. In this context, if you follow only what is right in front of you, the days may pass with you unable to savor the rare moments of your child's growth. Therefore, savor and value the irreplaceable time you spend with your family.

Table 9: Patterns in Dear Future

3. Creation Process

'Ways of Everyday World-Making' was created with the process that Iba Laboratory has cultivated for over 10 years (Iba and Isaku, 2016). The first stage was to conduct a 'Mining Dialogue' to extract knowledge of practice through dialogue. We interviewed 15 women who raise children while working.

The next stage was 'Clustering'. We clustered tips and advice that were mined from interviews using the visual clustering method (Iba and Isaku, 2012, 2016; Sasabe et al., 2016). After clustering, we made 107 CPS (Context, Problem, and Solution) cards.

Next, we merged CPS cards that had a similar essence. Then, we divided the CPS cards into three groups and made 34 patterns. Finally, we wrote patterns on the basis of the seeds of patterns. As we wrote these patterns, we drew 'Pattern Illustrations' for each one (Iba and Iba Lab, 2015; Miyazaki et al., 2015). In what follows, we introduce the main points that were carefully considered throughout the study process.

3.1. Mining Dialogue

To hear first-hand experiences and gather useful tips on keeping a good balance between work and family, we interviewed 15 working mothers who have experienced various working styles (Figure 2). We were especially careful to pick women who work either full- or part-time and choose their own working style, such as a researcher or promoter.

We interviewed these women and asked for advice and a description of what problems would occur if the advice was not followed. We then wrote these tips down on sticky notes. In addition to the advice we received from the working mothers, we had the chance to get the opinions of working fathers through feedback from our research publications in the summer of 2016. It became clear through reflecting on these comments that patterns can be used regardless of age or gender.



Figure 2: Mining Dialogue

3.2. Clustering

After interviewing 15 women, we ended up with 920 sticky notes: 256 blue sticky notes that contained problems and 668 yellow sticky notes that contained tips. We divided all of them into 11 topics, including jobs and household chores, and then clustered them into groups. Even with clustering, some elements extended over several topics, so we kept the sticky notes placed so that we could see all of them (Figure 3).

In addition, we prepared Environment for Focusing and did One to One Comparison again. Afterwards, we did Discovering the Islands from all sticky notes (Sasabe et al., 2016).



Figure 3: Clustering

3.3. Writing and Structuring

Once the initial patterns were completed, we repeatedly revised the patterns in order to raise the quality (Figure 4). In doing so, we kept two points in mind. First, we made sure to use words that do not give an unpleasant impression, even for people who do not correspond to our target audience. Second, we aimed to create this pattern language to encourage young women and to resolve their worries about balancing work life and private life. Therefore, when we were writing patterns, we tried to choose positive or catchy expressions. While improving the quality of the content, we inserted a structuring process twice (Figure 4). The contexts of patterns were lined up along the time-series of life events, and the level of abstraction was organized. We also kept in mind that readers should be able to understand the patterns without difficulty, whether they read them in order or not.



Figure 4: Writing and Structuring Process

3.4. Symbolizing

When we were doing 'Pattern Illustrations', we wanted to make sure that no one would feel 'excluded or isolated when looking at our drawings. For example, in Number 33 Precious Time, the coffee cup symbolizes the bonds between parents and children as a circle holding the family together. In the version on the left, the father is not present in the cup, which may make him feel excluded. Thus, we decided to use the version on the right, where he is present (Figure 5).

We used some patterns from the text 'Pattern Symbolizing Patterns' as a reference tool (Iba and Isaku, 2016). For instance, we remembered Centre Words when deciding the age of the children in our drawing, in order to make it appropriate to the pattern we are talking about. In addition, we used Emotional Actions when drawing character expressions, in order to convey the subtlest emotions possible. Finally, a pattern language for living well with

working and parenting was conveyed through a booklet and cards as 'Ways of Everyday World-Making'.

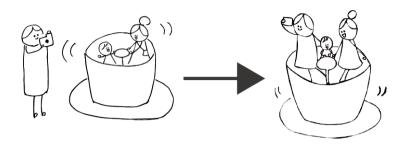


Figure 5: Improvement of Pattern Illustration

4. How to Use 'Ways of Everyday World-Making'

By promoting the use of 'Ways of Everyday World-Making', we hope to encourage as many people as possible to work positively while raising children. To do this, we need not only to distribute the 'Ways of Everyday World-Making' but also to teach people how to use it. Therefore, in this section we describe how to use 'Ways of Everyday World-Making' and its practical applications. First, we introduce practical examples from four workshops held at the SFC Open Research Forum (ORF). Next, we present practical examples from the dialogue workshop for university students. Then, on the basis of the reactions obtained at these workshops, we will consider the possibility of utilizing 'Ways of Everyday World-Making'.

4.1. Four kinds of workshops

At ORF, held on 18 and 19 November 2016, the results of this project were presented to the public. We also conducted workshops using 'Ways of Everyday World-Making' to verify the possibility of using patterns. There were four kinds of workshops: A dialogue workshop (lba, 2012), a workshop to think about a better life in apartments, a workshop to think about life with an ideal family, and a workshop to think about our own parenting and work in the future (Figure 6). In each workshop, we used pattern cards that summarized the content of patterns (Figure 7). We also used Emotional Actions when drawing character expressions, in order to convey the subtlest emotions possible.



Figure 6: Four kinds of workshops



Figure 7: Ways of Everyday World-Making Cards

All workshops were held for about 30 minutes. These workshops elicited a great variety of views from participants, and the patterns of 'Ways of Everyday World-Making' triggered dialogues and ideas. Furthermore, some participants gained opinions or solutions that had never occurred to them. With this feedback, we can verify that the patterns have the potential to cause personal change. Additionally, by holding various kinds of workshops, we found that the patterns have various types of utilization. In contrast, some participants, while they understood the message conveyed, did not quite believe the practicality of the patterns. So, our next agenda was to create more concrete descriptions and enhance the reality of the content.

4.2. Workshop for university students

The main target audience of this pattern language is young people who will simultaneously work and raise children in the future. As such, it was necessary to verify how both working

adults and students react to the patterns. Therefore, we held the workshop for university students using 'Ways of Everyday World-Making' (Figure 8). The workshop was held on December 21, 2016, with seven female participants. Firstly, participants read the pattern cards of 'Ways of Everyday World-Making'. Next, participants chose a pattern they want to adopt in the future and talked about it. If there was a pattern that a participant was currently practicing, she conversed about the experience. Finally, on the basis of what we talked about in the workshop, we asked participants to write letters to the future.



Figure 8: Workshop for university students

As a result of the above practice and questionnaire, three impressions were obtained. The first was 'Changes in the image of keeping a balance between work and family'. By using positive content patterns, it was possible to dispel the negative image of managing both child-rearing and work. The second was 'Learning new ideas from the pattern'. Many participants could ease their mind because they learned new solutions and ideas. The third was 'To be able to imagine a future vision'. Thinking about the pattern that they want to adopt, participants could create a concrete image of when they become mothers in the future. It became clear that, even within one hour, 'Ways of Everyday World-Making' could generate changes in recognition and ways of thinking.

5. Conclusion

In this study, we tried to describe 'Working Well with Parenting' through creating 'Ways of Everyday World-Making'. We distributed this to the public as leaflets at the ORF and held dialogue workshops with pattern cards. In addition, we create a Pattern Song "Everyday World-Making" based on this pattern language (Iba, et al., 2017). Moreover, the patterns are shared on the Kao Corporation website, with a current download count of approximately 2,000. The patterns are also reported in Nikkei DUAL which is the information site for work-

ing parents. We have received positive feedback from readers, such as 'The patterns show much consideration for my feelings' and 'I'd like to recommend this leaflet to people around me'. Through these practices, the patterns may help dissolve anxieties for young people who will enter the workforce after graduation. In addition, it may provide a new perspective for people who already work while raising children.

We believe that the 'Everyday World' patterns will bring about a transformation that goes beyond a personal level. Therefore, for the future of our work, we plan to continue to investigate changes in households, workplaces, regions and society as a whole. Through the power of encouraging participants to talk about their experiences, a pattern language can function in any community that balances working with parenting. However, people rarely talk about their experiences in daily life (lba, 2012). By using pattern languages in each respective community, we hope to promote the understanding of others and the personal creation of suitable systems that balance parenting and work. Because these patterns were mined from only Japanese participants, they might be specific to Japanese culture. Thus, we are interested in feedback from foreigners. By conducting an international comparison, we will be able to see any cultural differences (Hong et al., 2015).

6. Acknowledgement

We would like to thank the project members from Kao Corporation: Chie Akita, Nobuko Yoshida and Yumiko Imazu. We would also like to thank our interviewees: Yumiko Mori, Miyuki Mizutani, staff of Kao Corporation, and product testers of Kao Corporation. We would also like to express our gratitude to Ayaka Yoshikawa and Aimi Burgoyne for their support to write this paper in English and other members from Iba Laboratory for their helpful feedback on the patterns.

7. References

Alexander, C., Ishikawa, S., and Silverstein, M., Jacobson, M., Fiksdahi-King, I. and Angel, S. (1977). A Pattern Language: Towns, Buildings, Construction, Oxford University Press.

Hong, J., Akado, Y., Kogure, S., Sasabe, A., Saruwatari, K., Iba, T. (2015) "Exploring Cultures through Pattern Mining: Practices from Generative Beauty Workshops," 5th International Conference on Collaborative Innovation Networks.

Iba, T. (2012) "Dialogue Workshop Patterns: A Pattern Language for Designing Workshop to Introduce a Pattern Language", in the 17th European Conference on Pattern Languages of Programs (EuroPLoP2012).

Iba, T. and Isaku, T. (2012) "Holistic Pattern-Mining Patterns: A Pattern Language for Pattern Mining on a Holistic Approach," PLoP'12 Proceedings of the 19th Conference on Pattern Languages of Programs.

Iba, T. and Iba Lab (2015) Pattern Illustrating Patterns: A Pattern Language for Pattern Illustrating, CreativeShift.

Iba, T. and Isaku, T. (2016) "Creating a Pattern Language for Creating Pattern Languages: 364 Patterns for Pattern Mining, Writing, and Symbolizing," in the 23rd Conference on Pattern Languages of Programs.

Iba, T., Ueno, M., Yoshikawa, A. (2017) "Pattern Song: Taking Patterns from Visual Media to Auditory Media," 2nd World Conference on PURPLSOC (Pursuit of Pattern Languages for Societal Change).

National Institute of Population and Social Security Research. (2015) "Marriage and Child-birth in Japan Today: The Fifteenth Japanese National Fertility Survey, 2015 (Results of Singles and Married Couples Survey)", in Japanese.

Miyazaki, N., Sakuraba, R., Harasawa, K., and Iba, T. (2015) "Pattern Illustrating Patterns: A Pattern Language for Pattern Illustrating," in the 22nd Conference on Pattern Languages of Programs (PLoP2015)

Ministry of Health, Labor, and Welfare. (2016) "Basic Survey of Gender Equality in Employment Management", in Japanese.

Sasabe, A., Kaneko, T., Takahashi, K., and Iba, T. (2016) "Pattern Mining Patterns: A Search for the Seeds of Patterns", in 23rd Conference on Pattern Languages of Programs.

We thank the following for their kind support in reviewing the contributions for this book:

Artemis Anniou
Peter Baumgartner
Anne Dörner
Tomoki Furukawazono
Tina Gruber-Mücke
Takashi Iba
Susan Ingham
Taichi Isaku
Hajo Neis
Ana Pinto
Richard Sickinger
Wolfgang Stark
Anne Stieger
Stefan Tewes
Christina Weber

We live in a time of social and cultural change.

Old patterns are losing their validity and relevance new patterns are needed and in demand.

We need a new approach which can formulate, generate and engage such patterns.

The pattern language approach of Christopher Alexander serves this purpose - the interdisciplinary and participatory building blocks for societal change.

The PURPLSOC 2017 conference contributions cover 25 domains - from anthropology and automation to political science and systems science - for a comprehensive perspective of current pattern research and practice.

www.purplsoc.org



