

Creating a Pattern Language for Creating Pattern Languages

364 Patterns for Pattern Mining, Writing, and Symbolizing

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In this paper, we present the purpose, creating process, and overview of a pattern language for creating pattern languages, consisting 364 patterns for pattern mining, pattern writing, and pattern symbolizing. For the past 10 years, we, Iba Lab, have created more than 20 pattern languages on various topics to describe human actions, consisting of more than 600 patterns in total. By creating these new pattern languages, we have studied and developed methodology to create pattern languages and to practice and modify them. In addition, we have realized that lots of people are interested in our creating process when providing university courses on pattern languages, holding seminars for business people and teachers, and also when we present our patterns at international conferences. However, sharing the knowledge has always been a struggle. With this context, we started a project to inquire our tacit patterns when we create pattern languages. The 121 patterns for pattern mining, 121 patterns for pattern writing, and 121 patterns for pattern symbolizing (which includes pattern naming and pattern illustrating) are the results of the inquiry. This paper presents the purpose, creating process, and overview of these projects, instead of showing each pattern in details. See also our paper "Pattern Mining Patterns"(Sasabe et al., 2016b) and "Pattern Symbolizing Patterns"(Shibata et al., 2016) for the details.

1. INTRODUCTION

For the past 10 years, we, Iba Lab, have created more than 20 pattern languages on various topics that describe the tacit design knowledge of human actions, consisting of more than 600 patterns in total (Iba, 2015)¹. Topics include learning (Iba & Iba Lab, 2014a; Harashima, et al., 2014), collaboration (Iba & Iba Lab, 2014b), presentation (Iba & Iba Lab, 2014c), project design (Iba & Kajiwara, 2016; Kubota et al., 2016), change making (Shimomukai, et al., 2015), disaster prevention (Furukawazono, et al. 2015), beauty in everyday life (Arao, et al., 2012), living well with dementia (Iba & Okada, 2015), living with continuous self-fulfillments (Nakada, et al., 2013; Kamada, et al., 2014), living in the age of a global society (Matsuzuka, et al., 2013), cultural design (Kadotani, et al., 2013, 2014), cooking (Isaku & Iba, 2014; Isaku & Iba, 2015; Akado et al., 2016a; Yoshikawa et al., 2016), natural living (Kamada et al., 2016), generator as a new role to facilitate an idea generation (Nagai et al., 2016; Akado et al, 2016b), and policy design (Iba & Takenaka, 2013).

Through our experience of creating these new pattern languages, we have studied and developed our own methodology of creating pattern languages and also to practice and modify them. These methods are described in our works with pattern mining (Iba & Isaku, 2012; Iba & Yoder, 2014; Akado, et al., 2015) and pattern illustrating (Miyazaki, et al., 2015).

In addition, we have realized that many people are interested in this creation process when providing university courses on pattern languages, holding seminars for business people and teachers, and also when we present our patterns at international conferences. However, sharing the knowledge has always been a struggle. With this context, we started a project to inquire our tacit patterns when we create pattern languages. As a result, we ended up finding 364 patterns, written in full pattern format (in Japanese). The patterns were presented in 3 volumes of booklet, 780 pages in total.

Thus, we wrote 121 patterns for pattern mining, 121 patterns for pattern writing, and 121 patterns for pattern symbolizing (which includes pattern naming and pattern illustrating). In what follows, we present the purpose, creating process, and overview of these projects. We will not go into details of the individual patterns. See also our paper "Pattern Mining Patterns" (Sasabe et al., 2016b) and "Pattern Symbolizing Patterns" (Shibata et al., 2016) for this information. Note that "pattern symbolizing" is a name we have coined which includes the designing of the pattern name, pattern illustrations, and how to present the pattern language in order to show the contents and value of patterns by expressions to encourage intuitive comprehension.

We, of course, acknowledge that there are already many patterns for pattern mining and pattern writing, but our intent is, first of all, to share patterns we experienced so far. So we will discuss the overlap and

¹ At the time of Writers' Workshop, the number of pattern languages we created is more than 30 languages, consisting of more than 1,000 patterns including the patterns that are introduced in this paper.

relation between existing patterns and our patterns later. In this paper, we show the overview, the process, and patterns.

2. STRUCTURE OF PROPOSED PATTERN LANGUAGE

The proposed pattern language for creating a pattern language consists of 364 patterns in total. The language consists of three subsets of 121 patterns each for "Pattern Mining," "Pattern Writing," and "Pattern Symbolizing." The 363 patterns are crowned by the lead pattern "Pattern Language Creation" to make a total of 364 patterns. The three sections are roughly organized in a chronological order where the reader of the patterns will be guided through a process of creating a pattern language from collecting the data for the pattern language (pattern mining), writing the actual pattern language (pattern writing), and then finally making the pattern language intuitive and understandable (pattern symbolizing). This three-step process is what we define as the process of pattern language creation.

Although pattern mining and pattern writing are familiar topics for people in pattern community, pattern symbolizing is a rather new concept that we have coined. It encapsulates knowledge on how to show the content of the pattern with expressions to encourage intuitive comprehension, including pattern naming and pattern illustration. The 121 patterns in each of the three phases are again divided into three subcategories, each consisting of 40 patterns.

As a whole structure, this patter language is organized as a layered structure according to their level of abstraction. This structure may look like a "tree" structure in the sense of what Christopher Alexander had criticized, but it is not. Rather, this structure is close to the "pyramid" structure (Minto 1987), which is the structure to easily understand due to its explicitness of logical relations.

"All mental process (e.g., thinking, remembering, problem solving) apparently utilize this grouping and summarizing process, so that the information in a person's mind might be thought of as being organized into one giant conglomeration of related pyramids." (Minto, 1987, p.8)

Although we understand that the semantic relations among patterns are more organic, we decided to show the patterns in the layered structure so it would be easier for the readers to understand the process when reading the patterns from first to last. By reading through the patterns in their numerical order, you will be guided through the process of creating a pattern language. The proposed pattern language is structured as shown in Figure 1, consisting of 6 levels. Each level of patterns describes the pattern it branched off in the previous level in detail. For example, each of the patterns in level 2 will have three patterns branch off from it in level three that describes the concept in detail. Due to the fractal structure, the patterns in level three will again each have three patterns that branch off of it that go into further detail.

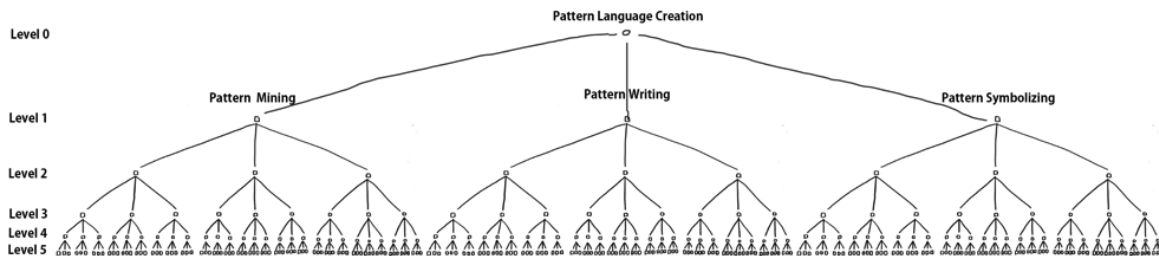


Figure 1: Whole structure of a patter language for creating pattern language

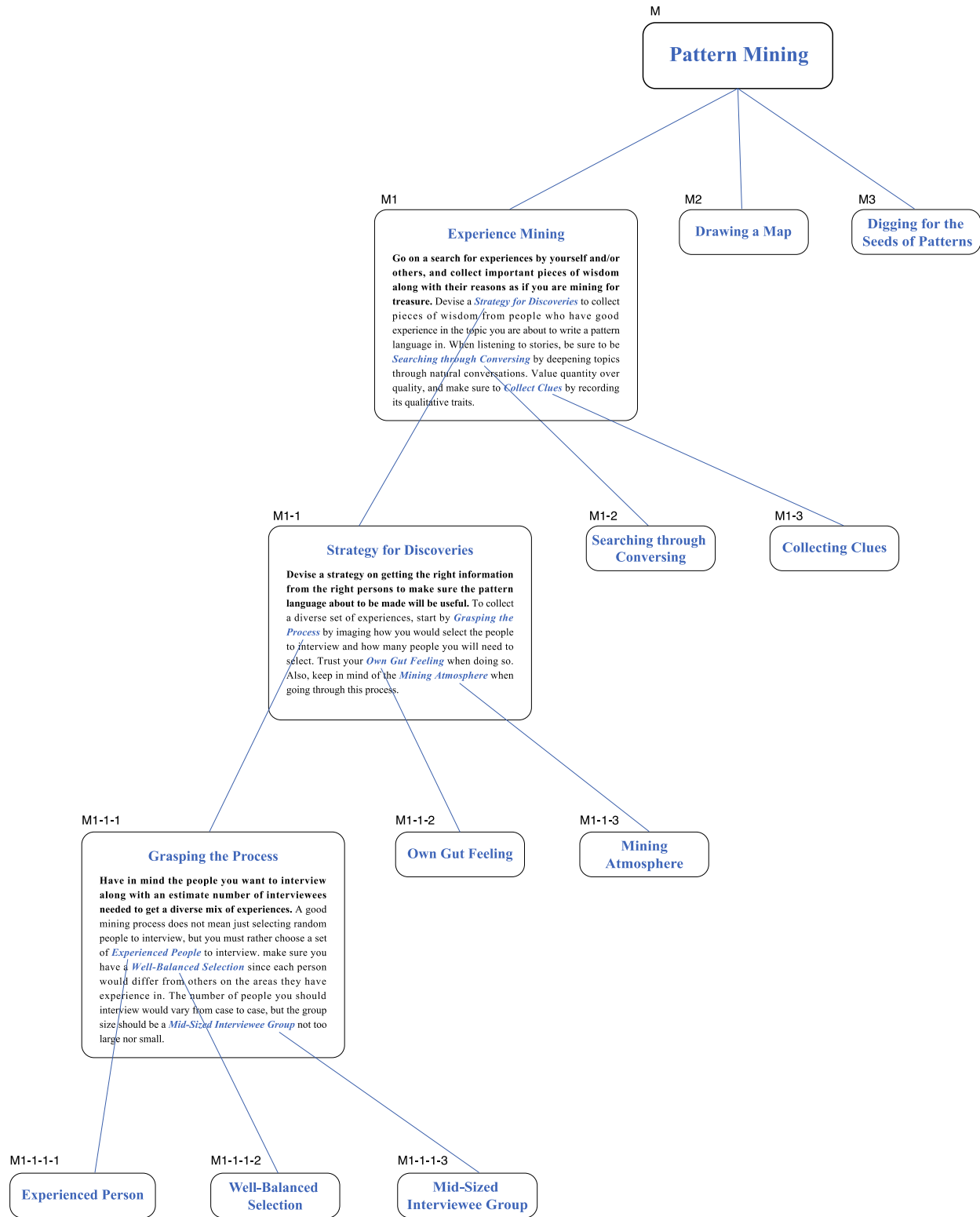


Figure 2: Connections between upper patterns and sub-patterns in the pyramid structure of patterns

Let's read the actual patterns in order to understand this structure:

- In the level 0, *Pattern Language Creation* has 3 sub-patterns: *Pattern Mining* (M), *Pattern Writing* (W), and *Pattern Symbolizing* (S).
- In the level 1, *Pattern Mining* (M) has 3 sub-patterns: *Experience Mining* (M1), *Pattern Mapping* (M2), and *Digging for the Seeds of Patterns* (M3)
- In the level 2, *Experience Mining* (M1) has 3 sub-patterns: *Strategy for Discoveries* (M1-1), *Searching through Conversing* (M1-2), *Collecting Clues* (M1-3)
- In the level 3, *Strategy for Discoveries* (M1-1) has 3 sub-patterns: *Grasping the Process* (M1-1-1), *Own Gut Feeling* (M1-1-2), and *Mining Atmosphere* (M1-1-3)
- In the level 4, *Grasping the Process* (M1-1-1) has 3 sub-patterns: *Experienced Person* (M1-1-1-1), *Well-Balanced Selection* (M1-1-1-2), and *Mid-Sized Interviewee Group* (M1-1-1-3).

In the pyramid structure of patterns, all sub-patterns are mentioned in the part of Solution statements (Figure 2).

Let's take examples of that each pattern refers to their 3 sub-patterns in the sentences of solution. The solution of *Experience Mining* (M1), in the level 2, is:

Go on a search for experiences by yourself and/or others, and collect important pieces of wisdom along with their reasons as if you are mining for treasure. Devise a *Strategy for Discoveries* to collect pieces of wisdom from people who have good experience in the topic you are about to write a pattern language in. When listening to stories, be sure to be *Searching through Conversing* by deepening topics through natural conversations. Value quantity over quality, and make sure to *Collect Clues* by recording its qualitative traits.

The solution of *Strategy of Discoveries* (M1-1), in the level 3, is:

Devise a strategy on getting the right information from the right persons to make sure the pattern language about to be made will be useful. To collect a diverse set of experiences, start by *Grasping the Process* by imaging how you would select the people to interview and how many people you will need to select. Trust your *Own Gut Feeling* when doing so. Also, keep in mind of the *Mining Atmosphere* when going through this process.

The solution of *Grasping the Process* (M1-1-1), in the level 4, is:

Have in mind the people you want to interview along with an estimate number of interviewees needed to get a diverse mix of experiences. A good mining process does not mean just selecting random people to interview, but you must rather choose a set of *Experienced People* to interview. Make sure you have a *Well-Balanced Selection* since each person would differ from others on the areas they have experience in. The number of people you should interview would vary from case to case, but the group size should be a *Mid-Sized Interviewee Group* neither too large nor small.

Finally, the solution of *Experienced Person* (M1-1-1-1), in the level 5, is:

Choose people who you feel are well experienced and admirable in the field you are about to create the pattern language in. Though the person does not have to be perfect in every aspect, choose someone who shows good skill and behavior in some way. Look for these people not just in your group of first-degree acquaintances, but you can also ask someone in the field to introduce you to such a person.

Patterns in the bottom layer have no sub-patterns, and therefore may have only semantic reference to other patterns.

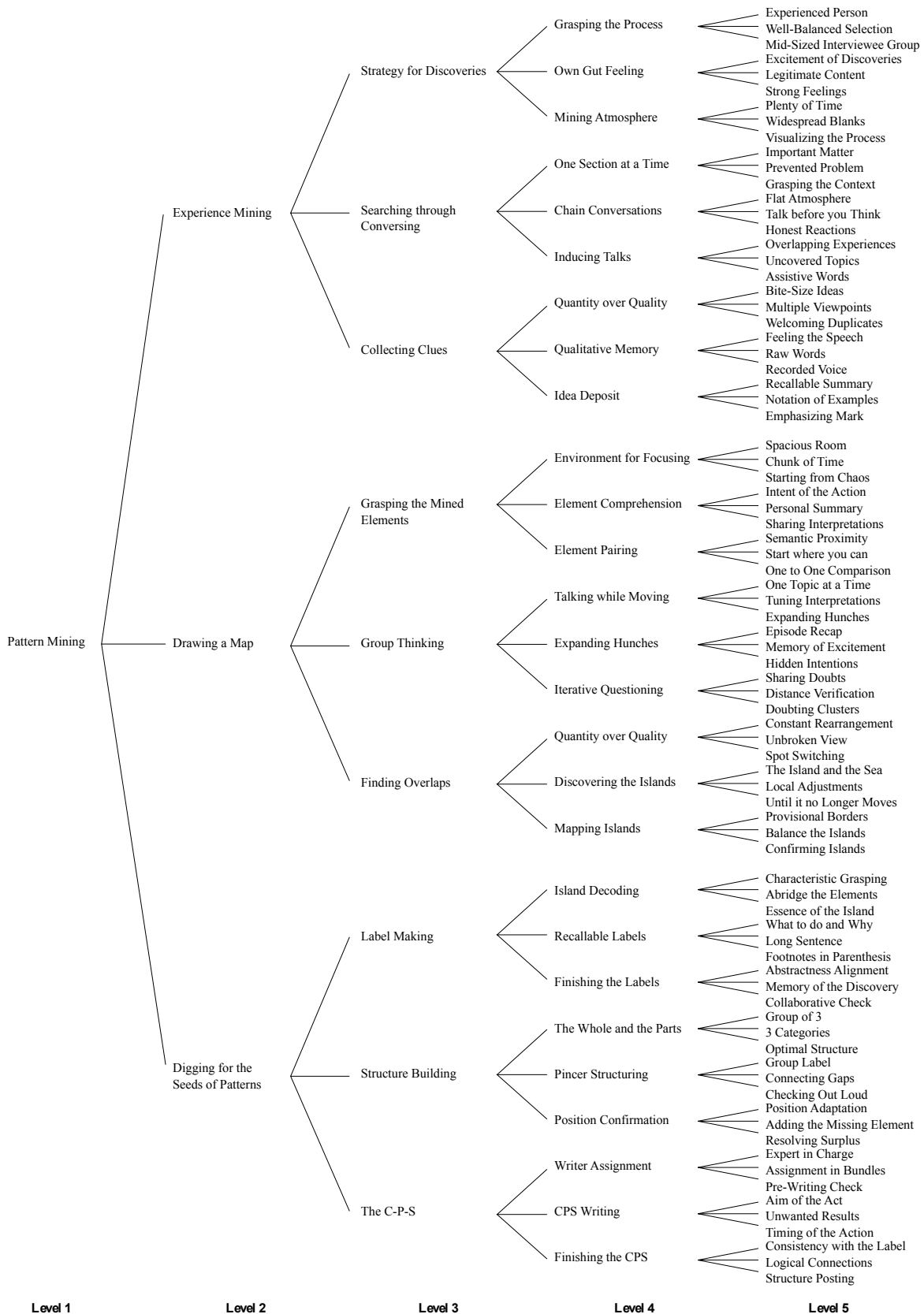


Figure 3: An overview of Pattern Mining Patterns (M)

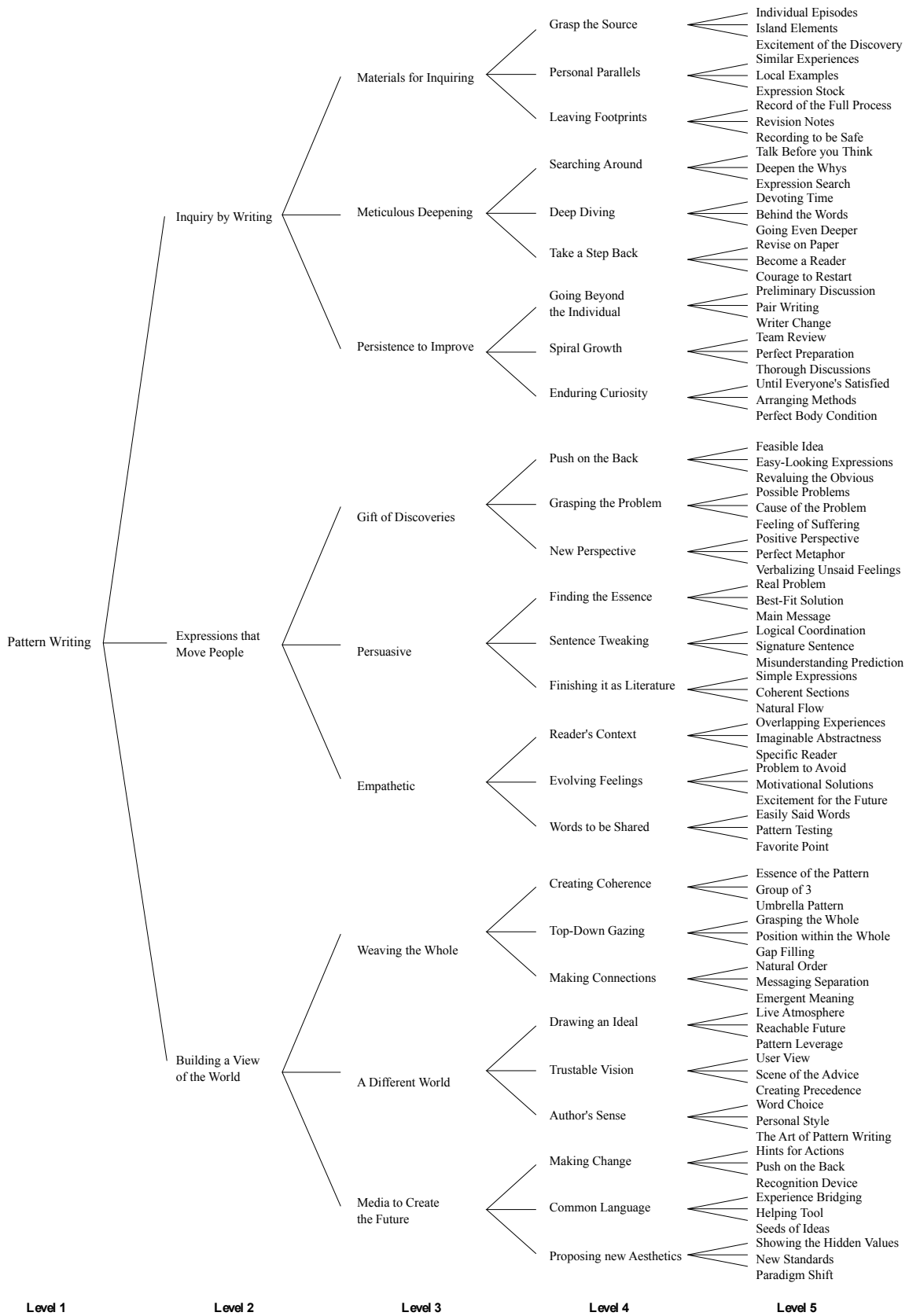


Figure 4: An overview of Pattern Writing Patterns (W)

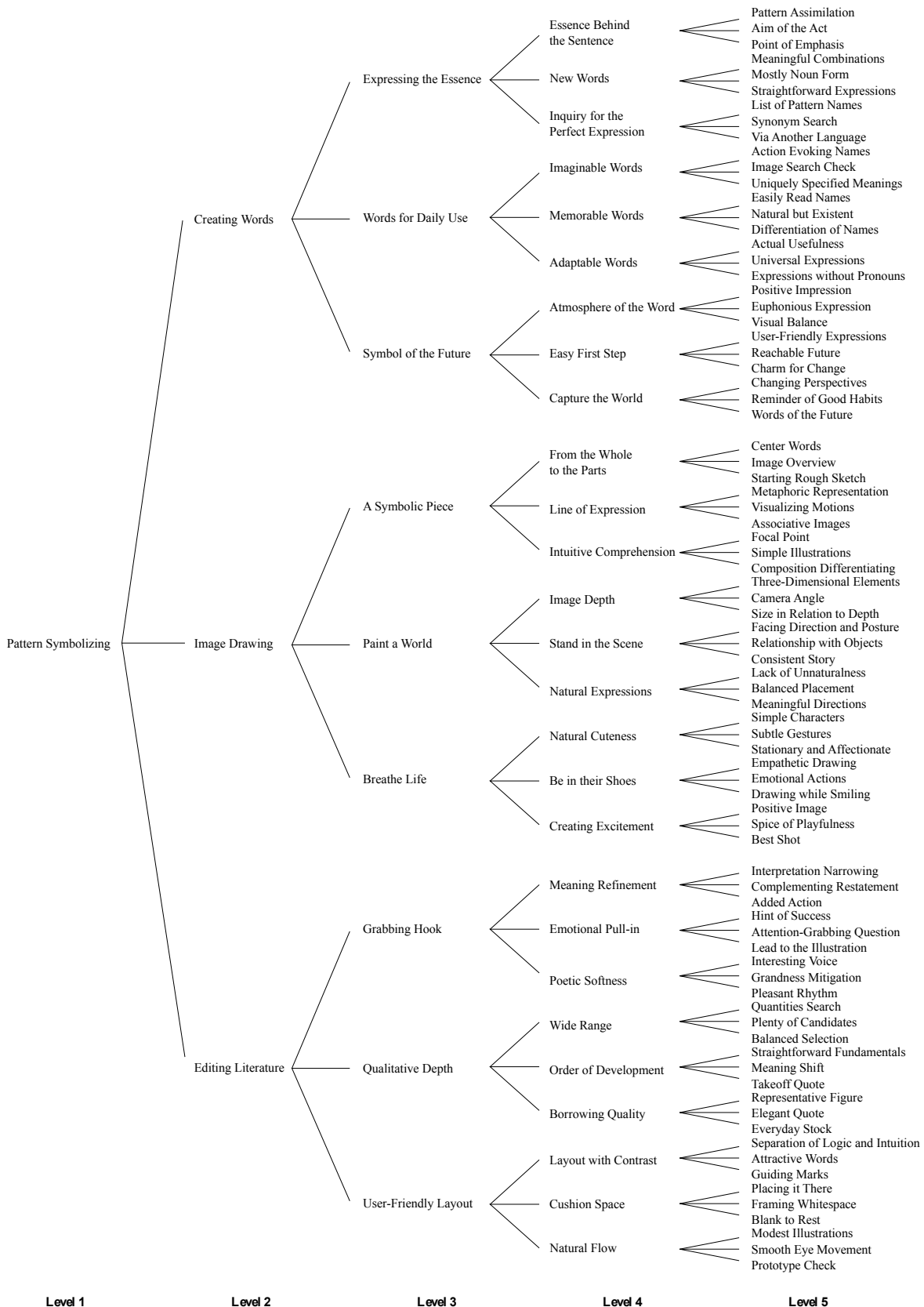


Figure 5: An overview of Pattern Symbolizing Patterns (S)

Figure 3, 4, and 5 show the part of pyramid structure of Pattern Mining, Pattern Writing, and Pattern Symbolizing respectively. For convenience, these parts can be used separately, as Pattern Mining Patterns, Pattern Writing Patterns, and Pattern Symbolizing Patterns. Sasabe et al. (2016b) presents some of Pattern Mining Patterns in details, and Shibata et al. (2016) shows patterns of pattern naming, in Pattern Symbolizing Patterns.

We have already written 364 patterns in full pattern format in Japanese, and consequently they are compiled into 3 volumes of booklet, consisting of 780 pages in total. Due to limitations of space, in this paper, we show just summaries of all patterns in the Appendix, including pattern name, pattern illustration, and first key sentence of the solution.

3. CREATING PROCESS OF THE PATTERN LANGUAGE

Here we write the creating process of the proposed pattern language in order to show where and how these patterns came from. As mentioned before, the pattern language was created for sharing tacit knowledge of our lab with other people who are interested in creating new pattern languages. Hence we mined patterns from experiences by reflecting by current members and interviewing with alumni of our lab.

In 2015, we conducted three projects: Pattern Writing Project, Pattern Mining Project, and Pattern Symbolizing Project. Each projects consists of 6 - 7 members. Some members have experience of several projects of creating pattern languages, and a few have a little experience on pattern language creation. The followings are some information about members and interviewees.

3.1 Members and Their Background

We first started the Pattern Writing Project from 3 projects since April 2015, finished in January 2016. The members of Pattern Writing Project are Arisa Kamada, Nao Tamaki, Rika Sakuraba, Natsumi Miyazaki, Masafumi Nagai, Kosuke Suzuki, and Takashi Iba. We interviewed with Aya Matsumoto, Taichi Isaku, Takuya Honda, Kaori Harasawa, and Megumi Kadotani in our lab. Table 1 shows pattern languages that project members and interviewees created, and the contents of Pattern Writing Patterns are reflected by these experiences.

Table 1: Members and Interviewees for Pattern Writing Patterns

Role	Name	Years of studying pattern language, before this project	Project of creating pattern languages in which they participated * represents "supervised project"
Project member	A. Kamada	3	Collaboration Patterns, Generative Beauty Patterns, Personal Culture Patterns, Words for a Journey, Natural Living Patterns, and some more projects
	N. Tamaki	2	Global Life Patterns, Words for a Journey, Creative Life Patterns
	R. Sakuraba	2	Creative Education Patterns, Pattern Illustrating Patterns, Creative Life Patterns, Cooking Patterns*
	N. Miyazaki	2	Global Life Patterns, Pattern Illustrating Patterns, Creative Life Patterns
	M. Nagai	2	Creative Life Patterns, Generator Patterns, and some more projects
	K. Suzuki	1.5	Creative Life Patterns
	T. Iba	13	Project Patterns*, Research Patterns*, Learning Patterns, Presentation Patterns, Collaboration Patterns, Generative Beauty Patterns, Pedagogical Patterns for Creative Learning, Survival Language*, Change Making Patterns*, Entrepreneurship & Management Patterns, Policy Language, good old future patterns, CoCooking Patterns*, Words for a Journey, Creative Society Patterns*, Project Design Patterns, Cooking Patterns, Cooking Life Patterns*, Parenting Patterns*, Generator Patterns*, Creative Life Patterns*, Pattern Illustrating Patterns, Holistic Mining Patterns, Mining Interview Patterns, Mining Workshop Patterns, Dialogue Workshop Patterns, SBC (Student Build Campus) Patterns*
Interviewee	A. Matsumoto	3.5	Presentation Patterns, Collaboration Patterns, Generative Beauty Patterns, Entrepreneurship & Management Patterns, good old future patterns, Words for a Journey
	T. Isaku	3	Collaboration Patterns, Global Life Patterns, CoCooking Patterns, Generative Cooking Patterns, Creative Life Patterns, Parenting Patterns, Generator Patterns
	T. Honda	3	Collaboration Patterns, Creative Life Patterns, SBC (Student Build

			Campus) Patterns, and some more projects
	K. Harasawa	3	Presentation Patterns, Collaboration Patterns, Generative Beauty Patterns, omotenashi patterns, Creative Life Patterns, Pattern Illustrating Patterns
	M. Kadotani	3	good old future patterns

Then, we started the Pattern Mining Project and the Pattern Symbolizing Project in September 2015, which finished in March 2016. The members of Pattern Mining Project are Nao Tamaki, Kosuke Suzuki, Alice Sasabe, Tomoki Kaneko, Kaho Takahashi, and Takashi Iba. We interviewed with Takuya Honda, Taichi Isaku, Masafumi Nagai, Yuma Akado, Sakurako Kogure, and Satomi Oi in our lab. Table 2 shows pattern languages that project members and interviewees created, and the contents of Pattern Mining Patterns are reflected by these experiences.

Table 2: Members and Interviewees for Pattern Mining Patterns

Role	Name	Years of studying pattern language, before this project	Project of creating pattern languages in which they participated * represents "participation for supervising"
Project member	N. Tamaki	2.5	Global Life Patterns, Words for a Journey, Creative Life Patterns, Pattern Writing Patterns
	K. Suzuki	2	Creative Life Patterns, Pattern Writing Patterns
	A. Sasabe	1.5	Mining Workshop Patterns, Parenting Patterns
	T. Kaneko	1.5	Words for a Journey, Parenting Patterns
	K. Takahashi	0	
	T. Iba	13.5	Project Patterns*, Research Patterns*, Learning Patterns, Presentation Patterns, Collaboration Patterns, Generative Beauty Patterns, Pedagogical Patterns for Creative Learning, Survival Language*, Change Making Patterns*, Entrepreneurship & Management Patterns, Policy Language, good old future patterns, CoCooking Patterns*, Words for a Journey, Creative Society Patterns*, Project Design Patterns, Cooking Patterns, Cooking Life Patterns*, Parenting Patterns*, Generator Patterns*, Creative Life Patterns*, Pattern Illustrating Patterns, Holistic Mining Patterns, Mining Interview Patterns, Mining Workshop Patterns, Dialogue Workshop Patterns, SBC (Student Build Campus) Patterns*, Pattern Writing Patterns
Interviewee	T. Honda	3.5	Collaboration Patterns, Creative Life Patterns, SBC (Student Build Campus) Patterns, and some more projects
	T. Isaku	3.5	Collaboration Patterns, Global Life Patterns, CoCooking Patterns, Generative Cooking Patterns, Creative Life Patterns, Parenting Patterns, Generator Patterns
	M. Nagai	2.5	Creative Life Patterns, Generator Patterns, Pattern Writing Patterns, and some more projects
	Y. Akado	1.5	Mining Workshop Patterns, Cooking Patterns, Cooking Life Patterns, Generator Patterns, and some more projects
	S. Kogure	1.5	Creative Life Patterns, Mining Workshop Patterns, SBC (Student Build Campus) Patterns
	S. Oi	4.5	Creative Society Patterns, SFC Culture Language

The members of Pattern Symbolizing Project are Natsumi Miyazaki, Rika Sakuraba, Shiori Shibata, Sakurako Kogure, Reiko Asano, Yosuke Aiba, and Takashi Iba. Kaori Harasawa is member of Pattern Illustrating Project, so her experience much influenced in our patterns. Table 3 shows pattern languages that project members and interviewees created, and the contents of Pattern Symbolizing Patterns are reflected by these experiences.

Table 3: Members and Interviewees for Pattern Symbolizing Patterns

Role	Name	Years of studying pattern language, before this project	Project of creating pattern languages in which they participated * represents "only supervising"
Project member	R. Sakuraba	2.5	Creative Education Patterns, Pattern Illustrating Patterns, Creative Life Patterns, Cooking Patterns*, SFC Culture Language*, Pattern Writing Patterns

	N. Miyazaki	2.5	Global Life Patterns, Pattern Illustrating Patterns, Creative Life Patterns, Pattern Writing Patterns
	S. Kogure	1.5	Creative Life Patterns, Mining Workshop Patterns, SBC (Student Build Campus) Patterns
	S. Shibata	0.5	Cooking Patterns, Cooking Life Patterns
	R. Asano	0	
	Y. Aiba	0	
	T. Iba	13.5	Project Patterns*, Research Patterns*, Learning Patterns, Presentation Patterns, Collaboration Patterns, Generative Beauty Patterns, Pedagogical Patterns for Creative Learning, Survival Language*, Change Making Patterns*, Entrepreneurship & Management Patterns, Policy Language, good old future patterns, CoCooking Patterns*, Words for a Journey, Creative Society Patterns*, Project Design Patterns, Cooking Patterns, Cooking Life Patterns*, Parenting Patterns*, Generator Patterns*, Creative Life Patterns*, Pattern Illustrating Patterns, Holistic Mining Patterns, Mining Interview Patterns, Mining Workshop Patterns, Dialogue Workshop Patterns, SBC (Student Build Campus) Patterns*, Pattern Writing Patterns
Member of former project	K. Harasawa	3.5	Presentation Patterns, Collaboration Patterns, Generative Beauty Patterns, omotenashi patterns, Creative Life Patterns, Pattern Illustrating Patterns

To synthesize, the pattern language to create a pattern language introduced in this paper is based on experiences from creating pattern languages as shown in Table 4.

Table 4: Source experiences of creating pattern languages

Pattern Language Title	Reference
Project Patterns	Naruse et al. (2008)
Research Patterns	Kobayashi et al. (2008)
Learning Patterns	Iba, et al. (2009); Iba & Miyake (2010); Iba & Sakamoto (2011); Iba & Iba Lab (2014a)
Presentation Patterns	Iba et al. (2012a); Iba & Isaku (2014); Iba & Iba Lab (2014b)
Collaboration Patterns	Iba & Isaku (2013); Iba & Iba Lab (2014c)
Generative Beauty Patterns	Arao, et al. (2012)
Pedagogical Patterns for Creative Learning	Iba et al. (2011)
Survival Language	Furukawazono et al. (2013); Furukawazono & Iba (2015)
Change Making Patterns	Shimomukai & Iba (2012); Shimomukai et al (2012); Nakamura et al. (2014); Shimomukai et al. (2015)
Personal Culture Patterns	Nakada et al (2013)
Global Life Patterns	Matsuzuka et al. (2013)
Creative Education Patterns	Harashima et al. (2014a)
Learning Patterns for Self-Directed Learning with Notebooks	Harashima et al. (2014b)
Entrepreneurship & Management Patterns	Iba et al. (2012b)
Policy Language	Iba & Takenaka (2013)
good old future patterns	Kadotani et al. (2014)
CoCooking Patterns	Isaku & Iba (2015); Isaku & Iba (2016)
Generative Cooking Patterns	Isaku & Iba (2014)
Words for a Journey	Iba et al. (2015a); Iba et al (2015b); Iba et al (2016)
Project Design Patterns	Iba and Kajiwara (2016); Kubota, et al. (2016)
Cooking Patterns	Akado et al. (2016a)
Cooking Life Patterns	Yoshikawa et al. (2016)
Parenting Patterns	Sasabe et al. (2016a)
Generator Patterns	Nagai et al. (2016); Akado, et al. (2016b)
Creative Life Patterns	Iba Lab (2014)

omotenashi patterns	Harasawa and Iba (2013)
Creative Society Patterns	Oi et al. (2015)
SBC (Student Build Campus) Pattern	Iba et al. (2015c)
SFC Culture Language	Ogo et al. (2016)
Holistic Mining Patterns	Iba & Isaku (2012)
Dialogue Workshop Patterns	Iba (2012)
Pattern Illustrating Patterns	Miyazaki, et al. (2015); Iba & Iba Lab (2015)
Mining Interview Patterns	Iba & Yoder (2014)
Mining Workshop Patterns	Akado et al. (2015)
Pattern Writing Patterns	not published

3.2 Mining Process

We obtained the seed of patterns with collaborative introspection among members and with some interviews. During the mining phase, we investigated pattern languages we created so far and also documents from during their creating them. For example, we were able to compare the final version of pattern names with its older versions. We also compared pattern illustrations from our pattern languages with and those of student groups in the course “Pattern Language.” By comparing these materials, we discussed what is good and how do we make it again and again. All findings were written on post-it notes.



Figure 6: Pattern Mining for Pattern Writing Patterns (W)

Then, following by our typical process of organizing elements during the mining phase (Iba & Isaku, 2012), we conducted a rough clustering of these elements using the KJ method. The KJ method was proposed by Jiro Kawakita (hence the name) for converging ideas emerging during the brainstorming phase. In the KJ method, ideas that are thought to have similar attributes are grouped together and placed close to each another. However, these similarities must not be mere superficial resemblances, core traits and functions must be observed and talked through before a single connection between two notes can be made. Another important aspect to keep in mind is that notes must be moved in terms of pairs.

After that, we turn to think in a top to bottom orientation to divide the patterns and to make categories. This step is not strict top-down thinking, but thinking from the top based on the clusters of elements we got in the previous step. In this step, we allowed us to add new seeds of patterns, and to combine several seeds into one general seeds in order to fit the pyramid structure. Again, we examined the contents of each seed of patterns, and then arranged the location and structure. Like this, process was not a linear process, but a circular process among several levels in the structure. Figure 6, 7, and 8 show the mining phase of Patter Writing Project, Pattern Mining Project, and Pattern Symbolizing Project respectively.



Figure 7: Pattern Mining for Pattern Mining Patterns (M)



Figure 8: Pattern Mining for Pattern Symbolizing Patterns (S)

4. UTILIZING THE PATTERN LANGUAGE

In this section, we will show some cases in which we used the proposed pattern language. There are two known uses of this pattern language: as a supporting tool for pattern writers, and as a tool to check the experience of pattern writers.

4.1 Use as a tool for supporting beginning pattern writers

These patterns, in their summary form, were handed out to students at our university course teaching how to create a pattern language. In the course, about 100 students, most of which are first-time pattern writers, form small teams of about 4 to 7 to create a pattern language through the 8-week course. The summary consists of the pattern name, pattern illustration, and solution as shown in Appendix of this paper. Though the course included a lecture on each of the steps introduced in the pattern language, these students could reference these patterns at any time as they worked on projects creating their own pattern languages (Figure 9).



Figure 9: Using the Patterns for Pattern Mining, Writing, and Symbolizing in the class of Pattern Language, Keio University

4.2 Use as a tool to check personal experience

Once the 364-pattern language was created, our question was: Are these patterns actually practiced? We checked our question by investigating if the pattern writers in our lab had any experience with the patterns. In a checklist format, we asked each person in our lab to place a check by each pattern if they had experience with it.

From the results of the checklist, a radar chart was generated for each student. The Pattern Experience Chart in Figure 10 shows their experience expressed visually, each of the three colors respectively representing one of the sub-languages (writing, mining, or symbolizing) in the pattern language. This way each student can see which parts they are good at, and which parts they need to work more on.



Figure 10: Examples of Reflection with Pattern Experience Charts of the Patterns for Pattern Mining, Writing, and Symbolizing

Figures 11, 12, and 13 shows the collective experience of our lab members of the Pattern Mining, Pattern Writing, and Pattern Symbolizing Patterns, respectively. This shows the general trend in which patterns are easy to achieve, and which parts are harder to practice.

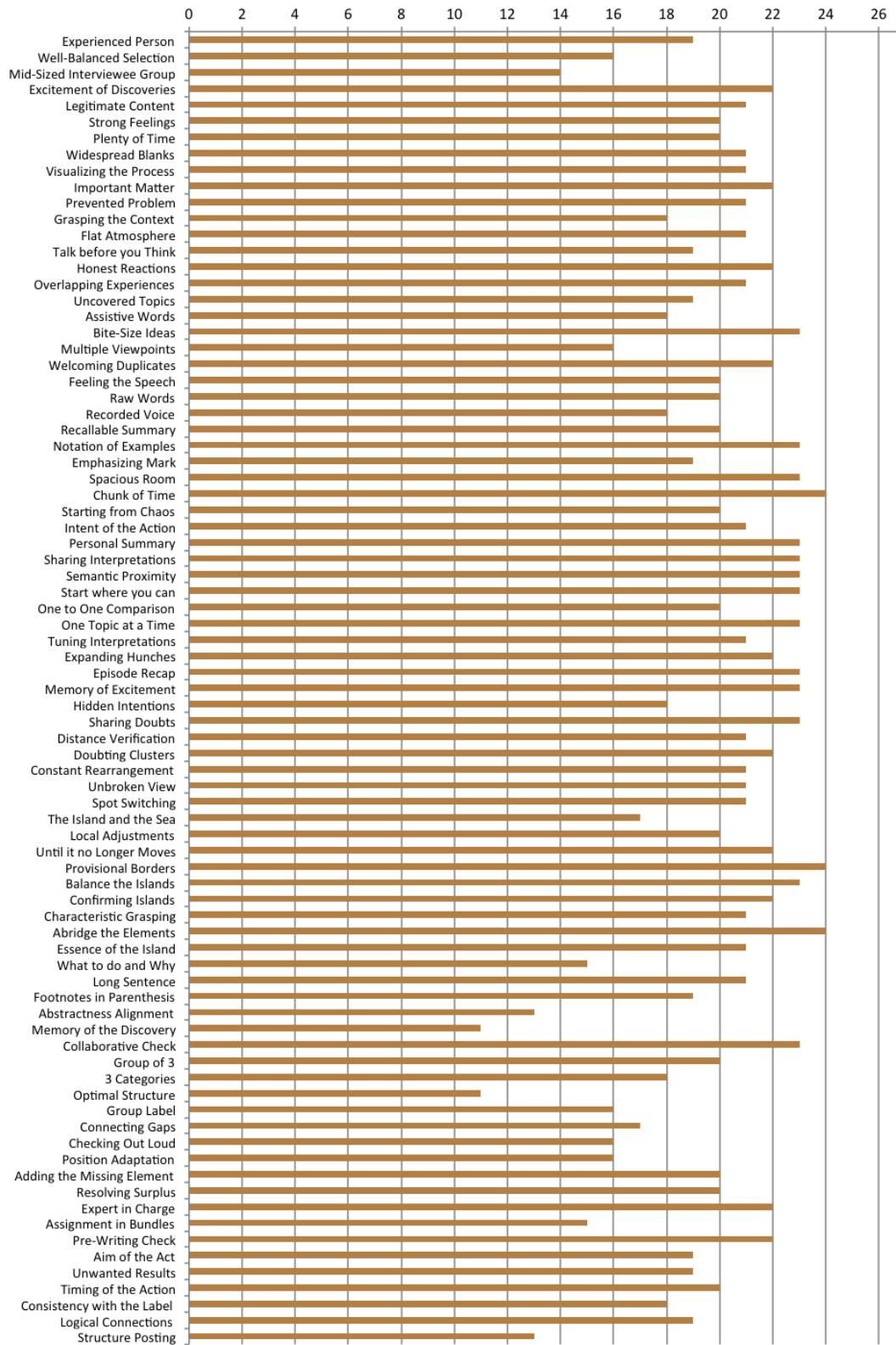


Figure 11: Number of Members who Experience Each Pattern in Pattern Mining Patterns (Total Number is 27)

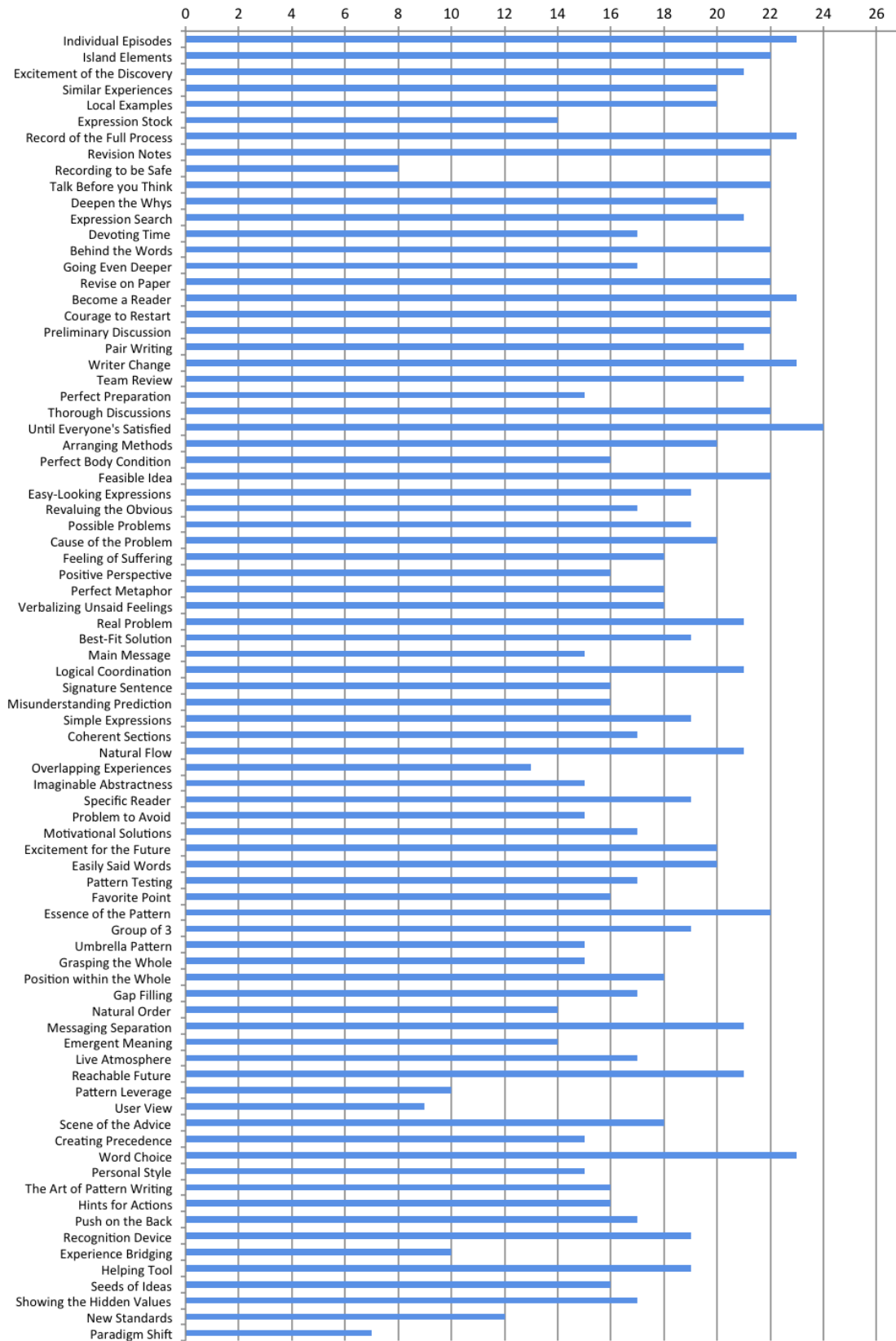


Figure 12: Number of Members who Experience Each Pattern in Pattern Writing Patterns (Total Number is 27)

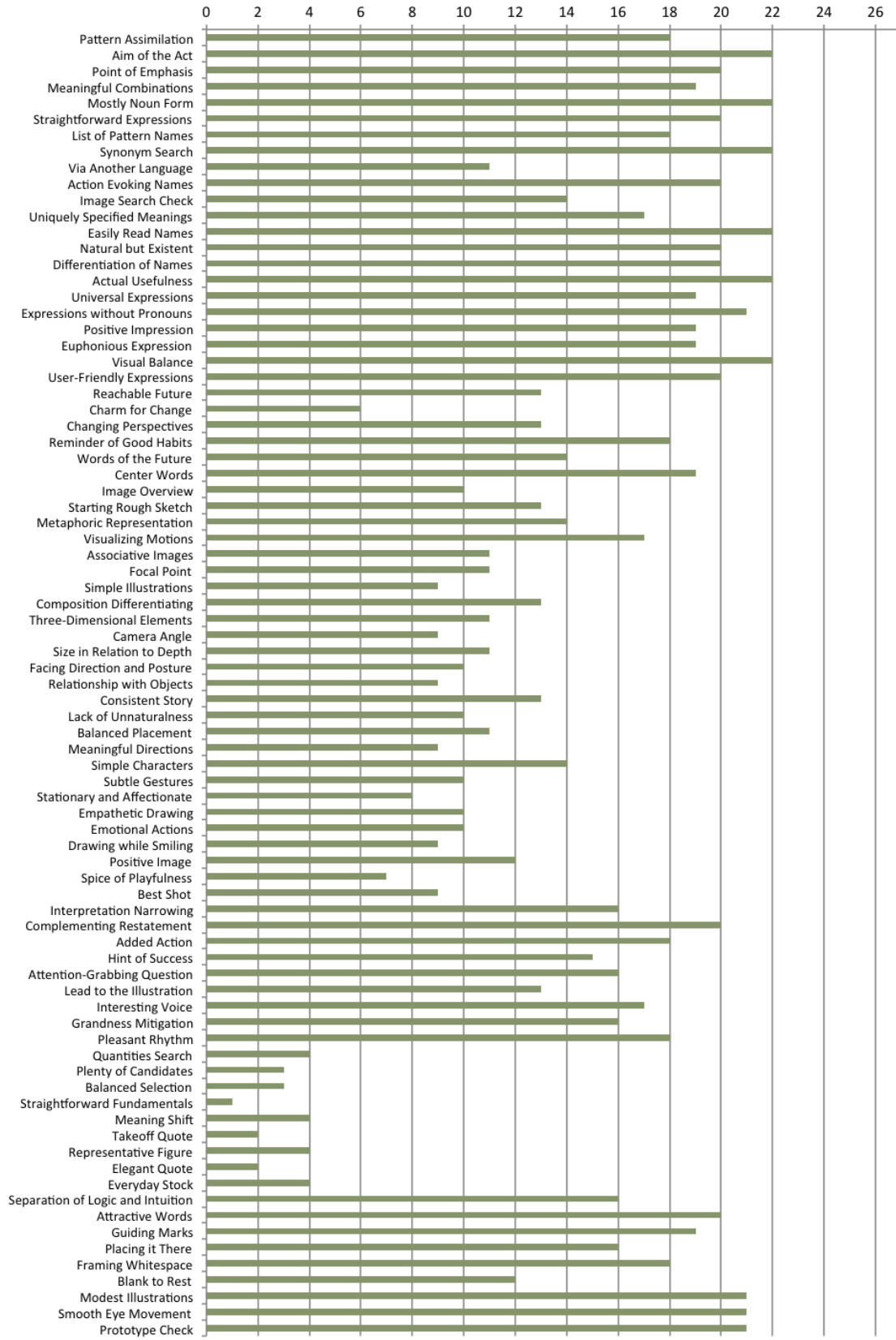


Figure 13: Number of Members who Experience Each Pattern in Pattern Symbolizing Patterns (Total Number is 27)

5. CONCLUSION

In this paper, we presented the purpose, creating process, and overview of a pattern language for creating pattern languages, consisting 364 patterns for pattern mining, pattern writing, and pattern symbolizing.

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APPENDIX: SUMMARY OF A PATTERN LANGUAGE FOR CREATING PATERRN LANGUAGE




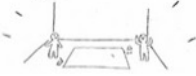










Pattern Mining Patterns (M1): Experience Mining













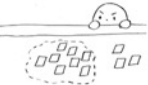
<p>M1</p> <p>Experience Mining</p>  <p>Go on a search for experiences by yourself and/or others, and collect important pieces of wisdom along with their reasons as if you are mining for treasure.</p>	<p>M1-1</p> <p>Strategy for Discoveries</p>  <p>Devise a strategy on getting the right information from the right persons to make sure the pattern language about to be made will be useful.</p>	<p>M1-1-1</p> <p>Grasping the Process</p>  <p>Have in mind the people you want to interview along with an estimate number of interviewees needed to get a diverse mix of experiences.</p>	<p>M1-1-1-1</p> <p>Experienced Person</p>  <p>Choose people who you feel are well-experienced and admirable in the field you are about to create the pattern language in.</p>
		<p>M1-1-1-2</p> <p>Well-Balanced Selection</p>  <p>When selecting people to interview, choose people so that you can get a diverse mix of experiences.</p>	
		<p>M1-1-1-3</p> <p>Mid-Sized Interviewee Group</p>  <p>Estimate the number of interviewees from the size of the pattern language you plan to write.</p>	
		<p>M1-1-2</p> <p>Own Gut Feeling</p>  <p>Don't become a passive listener: go ahead and deepen the parts of their speech that you really find interesting yourself.</p>	<p>M1-1-2-1</p> <p>Excitement of Discoveries</p>  <p>Enjoy the chain of discoveries that occur in yourself as you listen, and have them speak more of the parts you find interesting.</p>
		<p>M1-1-2-2</p> <p>Legitimate Content</p>  <p>Ask for more reasons and/or episodes on the episode or tips until you gain a true understanding of it.</p>	
		<p>M1-1-2-3</p> <p>Strong Feelings</p>  <p>Listen especially carefully to the parts that the interviewees have a strong feeling or passion for.</p>	
		<p>M1-1-3</p> <p>Mining Atmosphere</p>  <p>Create a good atmosphere that the group would feel comfortable mining for experiences.</p>	<p>M1-1-3-1</p> <p>Plenty of Time</p>  <p>Make sure to secure plenty of time to get a through set of tips and episodes.</p>
		<p>M1-1-3-2</p> <p>Widespread Blanks</p>  <p>Spread large sheets of craft paper across a large table so that you can place all the information gained from the interview onto the table.</p>	






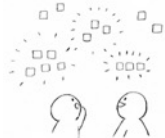
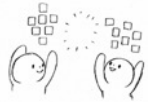

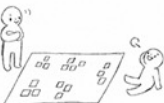




			<p>M1-1-3-3 Visualizing the Process</p> 	<p>Write out information gained from the interview onto small sticky notes to place on the table so that the group can grasp the progress, as well as creating a collaborative atmosphere.</p>
<p>M1-2 Searching through Conversing</p>  <p>Don't overload the interviewee one question after another, but have a conversation with them and listen for tips and episodes from the talk.</p>	<p>M1-2-1 One Section at a Time</p>  <p>Search for information by asking for each section of the pattern - the solution, problem, context, etc. - one at a time.</p>	<p>M1-2-1-1 Important Matter</p> 	<p>Start by asking them for something they value or think is important for when doing the action of the topic.</p>	
		<p>M1-2-1-2 Prevented Problem</p> 	<p>Ask what would happen if they didn't do the <i>Important Matter</i>, or what problems it is preventing.</p>	
		<p>M1-2-1-3 Grasping the Context</p> 	<p>Ask the situation or the condition in which the <i>Important Matter</i> becomes necessary or the <i>Prevented Problem</i> is likely to occur.</p>	
	<p>M1-2-2 Chain Conversations</p>  <p>Instead of following a question-answer style, look for important tips through bi-directional conversations.</p>	<p>M1-2-2-1 Flat Atmosphere</p> 	<p>Create an atmosphere that welcomes thoughts and ideas from everyone.</p>	
		<p>M1-2-2-2 Talk before you Think</p> 	<p>Say anything that comes to your mind, and don't worry too much about the quality of the idea.</p>	
		<p>M1-2-2-3 Honest Reactions</p> 	<p>Express your sympathetic reactions to the speaker.</p>	
		<p>M1-2-3 Inducing Talks</p>  <p>Share your own related experience, or restate their story with your own words to induce more ideas from the interviewee.</p>	<p>M1-2-3-1 Overlapping Experiences</p> 	<p>Share your own experience that might be close to what they are saying to deepen the conversation further.</p>
	<p>M1-2-3-2 Uncovered Topics</p> 		<p>Explore new topic areas that the group has not talked about to search for more ideas.</p>	
	<p>M1-2-3-3</p>		<p>Help the interviewee put</p>	

			<p>Assistive Words</p>  <p>their ideas into words by providing words that you feel are close to what they are trying to say.</p>
<p>M1-3 Collecting Clues</p>  <p>The information collected through the interview will all become materials and clues for writing the patterns - write out and save any information that arise.</p>	<p>M1-3-1 Quantity over Quality</p>  <p>Leave the evaluation of ideas off until later, and focus on getting as much information as possible.</p>	<p>M1-3-1-1 Bite-Size Ideas</p>  <p>Write down anything that comes across your mind, even if it is something very small.</p>	
		<p>M-3-1-2 Multiple Viewpoints</p>  <p>Explore the topic from various aspects.</p>	
		<p>M1-3-1-3 Welcoming Duplicates</p>  <p>Each person should write the idea out in their own words, even if it overlaps with a topic already covered or if someone else is writing about the same idea.</p>	
	<p>M1-3-2 Qualitative Memory</p>  <p>Try to remember the qualitative atmosphere of the person and their episode so that you can refer to it when writing the patterns later on.</p>	<p>M1-3-2-1 Feeling the Speech</p>  <p>Be present at the actual mining process so that you can meet and feel the atmosphere of the person and their speech.</p>	
		<p>M1-3-2-2 Raw Words</p>  <p>Take note of any keywords or special wordings that the person uses when they talk.</p>	
		<p>M1-3-2-3 Recorded Voice</p>  <p>Take an audio recording of the whole Mining process.</p>	
	<p>M1-3-3 Idea Deposit</p>  <p>The information collected through the interview will all become materials and clues for writing the patterns - save all information that might become important later on.</p>	<p>M1-3-3-1 Recallable Summary</p>  <p>When writing down a memo on a note, write a summary of the idea specific enough so that the group can recall what it is trying to say later on.</p>	
		<p>M1-3-3-2 Notation of Examples</p>  <p>Supplement the notes with any specific episodes and examples that comes up.</p>	
		<p>M1-3-3-3 Emphasizing Mark</p>  <p>If an idea seems especially important, emphasize it by putting a mark onto the note.</p>	















Pattern Mining Patterns (M2): Drawing a Map






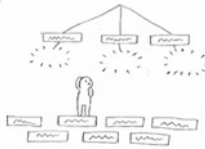

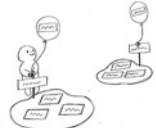

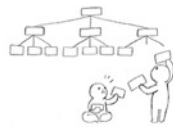
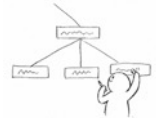

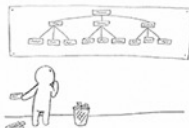
<p>M2</p> <p>Drawing a Map</p>  <p>Create a "map" out from the information gained through the <i>Experience Mining</i> that would help look for where patterns might be hidden.</p>	<p>M2-1</p> <p>Grasping the Mined Elements</p>  <p>Form a shared understanding of the information gained through the <i>Experience Mining</i> among the group before <i>Drawing a Map</i>.</p>	<p>M2-1-1</p> <p>Environment for Focusing</p>  <p>Coordinate an environment where you can spread several sheets of craft paper on a large table and focus for long periods of time.</p>	<p>M2-1-1-1</p> <p>Spacious Room</p> 	<p>Create an environment where you can focus on the clustering without any hassle.</p>
		<p>M2-1-1-2</p> <p>Chunk of Time</p> 	<p>Schedule long periods of time for the clustering so that you can thoroughly consider the relationships between each piece of information.</p>	
		<p>M2-1-1-3</p> <p>Starting from Chaos</p> 	<p>When first placing the sticky notes onto the craft paper, do not try to neatly organize them, but place them at random facing different directions.</p>	
		<p>M2-1-2</p> <p>Element Comprehension</p>  <p>Carefully but dynamically, comprehend the true meanings of each note one by one.</p>	<p>M2-1-2-1</p> <p>Intent of the Action</p>  <p>Try not to get misled by the actions itself written on the note, but try to read deeply into why the action is needed or what larger intent the action is trying to accomplish.</p>	
			<p>M2-1-2-2</p> <p>Personal Summary</p>  <p>Summarize the essence of the information written on the note and the reason it is important in your own words.</p>	
			<p>M2-1-2-3</p> <p>Sharing Interpretations</p>  <p>Grasp the <i>Intent of the Action</i> of the note, share your <i>Personal Summary</i> with the group, and discuss whether your understanding of the note is correct.</p>	
		<p>M2-1-3</p> <p>Element Pairing</p>  <p>Place two elements that are semantically close nearby.</p>	<p>M2-1-3-1</p> <p>Semantic Proximity</p>  <p>When moving notes close to one another, don't get caught by any common words or superficial similarities, but focus on its meaning and consider if it is really close.</p>	
			<p>M2-1-3-2</p> <p>Start where you can</p>  <p>Don't try to start from any specific place, but gaze over the whole table and start with notes that you feel the slightest <i>Semantic Proximity</i>.</p>	
			<p>M2-1-3-3</p> <p>One to One Comparison</p>  <p>Do not move a note close to a "group" of notes, but always consider proximity of notes on a "one to one" relationship.</p>	
		<p>M2-2</p> <p>Group Thinking</p>	<p>M2-2-1</p> <p>Talking while</p>	<p>M2-2-1-1</p> <p>One Topic at a Time</p>














 <p>Instead of everyone thinking and moving the notes for themselves, go through the process together as if the group is one large brain, and talk through any thought processes that you have so you can share it to other members.</p>	<p>Moving</p>  <p>Always talk to and consult the group when moving a note.</p>	 <p>M2-2-1-2 Tuning Interpretations</p> 	<p>going on simultaneously - consider and discuss one topic at a time as a group and have each person share their interpretations.</p> <p>Have each person share any thoughts and fine tune the meanings of each note or group to create a common understanding.</p>	
	<p>M2-2-1-3 Expanding Hunches</p> 	<p>Share your thoughts with the group even if it is not organized not put into the right words yet.</p>		
	<p>M2-2-2 Expanding Hunches</p>  <p>Look for the essence of each note by recalling who's idea it was, what kind of an episode it came from, and in what way it seemed important.</p>	<p>M2-2-2-1 Episode Recap</p> 	<p>Recall the episode that the note was based off of.</p>	
		<p>M2-2-2-2 Memory of Excitement</p> 	<p>Recall any emphasized points, points that gained lots of sympathy, or memorable episodes from the mining process when moving the notes.</p>	
		<p>M2-2-2-3 Hidden Intentions</p> 	<p>Infer unsaid parts of the action written on the notes from the personality and activity of the person which the note originated from.</p>	
	<p>M2-2-3 Iterative Questioning</p>  <p>Even if a note was moved once, repeatedly consider its relationship with other notes and adjust its position.</p>	<p>M2-2-3-1 Sharing Doubts</p> 	<p>Share the smallest of doubts that come across your mind.</p>	
		<p>M2-2-3-2 Distance Verification</p> 	<p>Even if two notes were confirmed once to be close in meaning, test to see if it is really close later on several times.</p>	
		<p>M2-2-3-3 Doubting Clusters</p> 	<p>Even if clusters of notes start to form, always have a doubting mind and question if the notes are really close in meaning.</p>	
	<p>M2-3 Finding Overlaps</p>	<p>M2-3-1 Active Inquiry</p>	<p>M2-3-1-1 Constant</p>	<p>The notes should be constantly changing</p>

	 <p>Find the common meaning shared among several notes, and notice the overlapping patterns.</p>	 <p>When clustering both the notes and the participating humans should be constantly moving.</p>	<p>Rearrangement</p> 	<p>positions - do not be afraid to move a note that has already been moved once.</p>
			<p>M2-3-1-2 Unbroken View</p> 	<p>Spread the craft paper on a continuous surface so that all of the notes can be viewed at once.</p>
			<p>M2-3-1-3 Spot Switching</p> 	<p>When clustering, switch and change standing positions so that you can get a view of the table from different viewpoints and pay attention to all of the notes.</p>
	<p>M2-3-2 Discovering the Islands</p>  <p>Find the "islands," or the groups of notes.</p>		<p>M2-3-2-1 The Island and the Sea</p> 	<p>Make the contrast between the "islands" or groups of notes formed through <i>Finding Overlaps</i> and the surrounding "sea" strong so that they are recognizable.</p>
			<p>M2-3-2-2 Local Adjustments</p> 	<p>Makes small adjustments even within the "islands" to show their local distance and meaning.</p>
			<p>M2-3-2-3 Until it no Longer Moves</p> 	<p>Persist the clustering process until the notes will no longer move.</p>
	<p>M2-3-3 Mapping Islands</p>  <p>Organize and confirm the "islands" formed by semantically close notes.</p>		<p>M2-3-3-1 Provisional Borders</p> 	<p>Draw in temporary lines around the "islands" that are starting to form in pencil.</p>
			<p>M2-3-3-2 Balance the Islands</p> 	<p>If any of the islands is significantly larger or smaller in size, try breaking apart or combining the islands to balance their contents.</p>
			<p>M2-3-3-3 Confirming Islands</p> 	<p>When all the islands are balanced out and settled, trace the borders in pen and fix the notes in place with tape.</p>














Pattern Mining Patterns (M3): Digging for the Seeds of Patterns








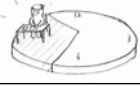






<p>M3</p> <p>Digging for the Seeds of Patterns</p>  <p>Create the "Seeds of Patterns" from the "Islands" discovered in <i>Drawing a Map</i>.</p>	<p>M3-1</p> <p>Label Making</p>  <p>Think of and write a "Label" that describes the contents of each island in one sentence to create the core of the <i>Seeds of Patterns</i>.</p>	<p>M3-1-1</p> <p>Island Decoding</p>  <p>Look at the notes one by one to find the common essence existent among them.</p>	<p>M3-1-1-1</p> <p>Characteristic Grasping</p>  <p>Gaze over the notes gathered in the island and find decide which is the most characteristic message of the group.</p>
			<p>M3-1-1-2</p> <p>Abridge the Elements</p>  <p>Find the common message that several of the notes within the island are expressing.</p>
			<p>M3-1-1-3</p> <p>Essence of the Island</p>  <p>Summarize the messages of the notes in the island into one sentence, as if you are going to convey the message to someone else.</p>
		<p>M3-1-2</p> <p>Recallable Labels</p>  <p>Make the one sentence of the label descriptive enough so that its meaning can be recalled later on just with the label.</p>	<p>M3-1-2-1</p> <p>What to do and Why</p>  <p>Write on the label the actual action that needs to be done along with why it should be done.</p>
			<p>M3-1-2-2</p> <p>Long Sentence</p>  <p>Make the sentence of the label descriptive enough so that all the important information is included, even if the sentence gets long.</p>
			<p>M3-1-2-3</p> <p>Footnotes in Parenthesis</p>  <p>If there are any episodes or examples that are important, add them in parenthesis at the end of the label.</p>
		<p>M3-1-3</p> <p>Finishing the Labels</p>  <p>Finish the labels by adjusting its abstractness based on the other labels, and lost by enforcing its contents.</p>	<p>M3-1-3-1</p> <p>Abstractness Alignment</p>  <p>Decide on the best level of abstraction of the label by comparing it to the abstraction label of other labels, and rewrite the labels as needed.</p>
			<p>M3-1-3-2</p> <p>Memory of the Discovery</p>  <p>Recall the <i>Excitement of Discoveries</i> and the <i>Strong Feelings</i> that you felt when you did the <i>Experience Mining</i>, check to see if they are reflected onto the labels, and rewrite the labels if it isn't.</p>
			<p>M3-1-3-3</p> <p>Collaborative Check</p>  <p>Check the labels written by individual members as a team to check for any misunderstanding and fix any expressions that could made be better.</p>
		<p>M3-2</p> <p>Structure</p>	<p>M3-2-1</p> <p>The Whole and</p>














	<p>Building</p>  <p>Find the relationships between the <i>Seed of Patterns</i> to make the structure of the pattern language along with the position of each pattern.</p>	<p>the Parts</p>  <p>Alternately look at the whole and the parts to see what kinds of labels are there, and start making its structure.</p>	 <p>M3-2-1-2 3 Categories</p> 	<p>labels into groups of three based on their semantic closeness.</p> <p>With the <i>Groups of 3</i> in mind, think how you can categorize the whole language into three categories.</p>
	<p>M3-2-1-3 Optimal Structure</p> 	<p>Choose the optimal structure for the pattern language based on its feature and goals.</p>		
	<p>M3-2-2 Pincer Structuring</p>  <p>Proceed with the structuralizing process by both creating bottom-up grouping and top-down categorization.</p>	<p>M3-2-2-1 Group Label</p>  <p>When thinking of the structure on a bottom-up basis, look at the <i>Groups of 3</i> to think of a label for the layer above.</p>		
	<p>M3-2-2-2 Connecting Gaps</p>  <p>When thinking of the structure on a top-down basis, think of what kind of a <i>Group Label</i> should exist below each of the 3 <i>Categories</i>.</p>			
	<p>M3-2-2-3 Checking Out Loud</p>  <p>Orally explain to the group the relationship between the upper layer label and the labels that are below it, to check to see if it is logical and/or has any points that feel strange.</p>			
	<p>M3-2-3 Position Confirmation</p>  <p>Check the position of each label in relation to the whole and the labels that are nearby, and confirm its position by make any changes to its position and expressions based on its relative position.</p>	<p>M3-2-3-1 Position Adaptation</p>  <p>Since the meaning of each label would change based on its position within the whole, rewrite the labels so it reflects the position it is at.</p>		
	<p>M3-2-3-2 Adding the Missing Element</p>  <p>As the result of the <i>Structuralizing</i>, if you feel there is an element missing where it should be, reflect back on the <i>Experience Mining</i> or even do another round to add more labels.</p>			
	<p>M3-2-3-3 Resolving Surplus</p>  <p>If there are any labels that were leftover as a result of the <i>Structuralizing</i>, look for other labels that they can be merged or integrated into, and if not, delete the label.</p>			
	<p>M3-3 The C-P-S</p>	<p>M3-3-1 Writer</p>	<p>M3-3-1-1 Expert in Charge</p>	<p>When choosing which seed to be in charge of</p>

 <p>Write out the Context, Problem, and the Solution based on each of the <i>Seeds of Patterns</i>.</p>	<p>Assignment</p>  <p>When writing out the CPS (Context, Problem, Solution), the person who understands the seed the most should be the person in charge of doing so with its position also taken into consideration.</p>	 <p>M3-3-1-2 Assignment in Bundles</p> 	<p>writing, start by choosing the ones you feel strongly attached to or have a clear image of what the pattern is saying.</p> <p>When choosing who writes the pattern, the same person should be in charge of all the patterns in the <i>Group of 3</i> or the <i>3 Categories</i> generated through the <i>Structure Building</i>.</p>	
	<p>M3-3-2 CPS Writing</p>  <p>When writing the CPS (Context, Problem, Solution), write out the Solution first, then the Problem, and finally the Context.</p>	<p>M3-3-1-3 Pre-Writing Check</p>  <p>If you are not sure of any of the patterns given to you, make sure to consult the other members on its meaning before taking it home to write.</p>	<p>M3-3-2-1 Aim of the Act</p>  <p>When writing the solution, make sure to scribe out not only the preferred action, but also consider the quality that the action is trying to achieve.</p>	<p>M3-3-2-2 Unwanted Results</p>  <p>When writing the Problem statement, do so by thinking what would happen and what kind of a quality would be lost if they didn't do the action provided in the Solution.</p>
	<p>M3-3-3 Finishing the CPS</p>  <p>Finish the CPS by checking to see if its contents match what the label says and if the three sections are logical.</p>	<p>M3-3-2-3 Timing of the Action</p>  <p>When writing the Context, do so by thinking of when the action written in the Solution becomes important, and when the Problem is likely to occur.</p>	<p>M3-3-3-1 Consistency with the Label</p>  <p>Check to see if the Context, Problem, and the Solution on the CPS doesn't differ from the message on the label, and make any fixes if there are any glitches.</p>	<p>M3-3-3-2 Logical Connections</p>  <p>Read the CPS in the order Context, Problem, then the Solution to check to see if it is logical and natural, and make any fixes if it isn't.</p>
			<p>M3-3-3-3 Structure Posting</p>  <p>At the end of the <i>Finishing the CPS</i> process, arrange the CPS cards in the structure found in the <i>Structure Building</i> process on the wall, and take a photo of the whole, along with its parts.</p>	














Pattern Writing Patterns (W1): Inquiry by Writing














<p>W1</p> <p>Inquiry by Writing</p>  <p>Write the patterns with the mindset that you are going through a process of inquiry. To write patterns, you must start by collecting the <i>Materials for Inquiring</i>.</p>	<p>W1-1</p> <p>Materials for Inquiring</p>  <p>Create the fundamentals that are important for creating a pattern language, and go through the process of inquiry by facing these elements.</p>	<p>W1-1-1</p> <p>Grasp the Source</p>  <p>Check to see what you found in the mining process, and consider what kinds of patterns you should write.</p>	<p>W1-1-1-1</p> <p>Individual Episodes</p>  <p>Look back at each of the episodes that came out in the mining process, and recall its important essence, along with the qualities that it had.</p>
		<p>W1-1-1-2</p> <p>Island Elements</p>  <p>Look back at the islands created through the clustering process, and consider what each of the islands mean, and what kinds of episodes are hanging from each of the patterns.</p>	
		<p>W1-1-1-3</p> <p>Excitement of the Discovery</p>  <p>Recall the emotion and impressions you felt when you heard or mined of the episodes.</p>	
		<p>W1-1-2</p> <p>Personal Parallels</p>  <p>Search for similar experiences within yourself to make the pattern more personal to you.</p>	<p>W1-1-2-1</p> <p>Similar Experiences</p>  <p>Look back at the similar experience that you have, and recall the thoughts and emotions you had at the moment. Look for similar experiences that match the story of the interviewee.</p>
		<p>W1-1-2-2</p> <p>Local Examples</p>  <p>Reference the stories and experiences of the people around you that you know.</p>	
		<p>W1-1-2-3</p> <p>Expression Stock</p>  <p>Keep out an antenna for good expressions and illustrations, and make a stock of the ones that you like.</p>	
		<p>W1-1-3</p> <p>Leaving Footprints</p>  <p>Proceed with the writing process while leaving all iteration history so that you can go back to the previous phase at any time.</p>	<p>W1-1-3-1</p> <p>Record of the Full Process</p>  <p>Record and reserve the whole revision process so that you can go back to any point in time later on.</p>
		<p>W1-1-3-2</p> <p>Revision Notes</p>  <p>Print the patterns out on paper, and write in it what needs to be fixed and how so that you can always reference the feedback that you received.</p>	
		<p>W1-1-3-3</p> <p>Keep an audio record of</p>	















			Recording to be Safe 	the process at all times.
W1-2 Meticulous Deepening  Get excited of the unknown product that is about to made, and as a pattern writer have the mindset of creating new patterns derived from the seeds of patterns.	W1-2-1 Searching Around  While making the patterns, always be looking and be open for new ideas and discoveries.	W1-2-1-1 Talk Before you Think 	Share your thoughts by saying it aloud or writing it out, even if you are not sure if it would be useful for the group nor you have your thoughts all organized yet.	
		W1-2-1-2 Deepen the Whys 	Repeatedly ask the question "Why?" even think it is something obvious.	
		W1-2-1-3 Expression Search 	Look for alternative ways of expressing what you want to outside of the words and expressions you already have to expand on the image.	
	W1-2-2 Deep Diving  Rethink what you have and polish it by diving it deep and meticulously searching for its true essence.	W1-2-2-1 Devoting Time 	Include in your schedule the chunk of time that you can devote to facing the patterns by yourself and write it.	
		W1-2-2-2 Behind the Words 	Compare what is written in the pattern with what it really wants to say, and search for points that could be revised to become closer to the core.	
		W1-2-2-3 Going Even Deeper 	Once you get a grasp of the essence, deepen your thoughts even deeper to focus and get closer to the essence.	
	W1-2-3 Take a Step Back  Take a moment to take a step back and look at the pattern with a fresh look to consider how you should take the next step.	W1-2-3-1 Revise on Paper 	All members should have a printed copy of the pattern to be revised, and write in any feedback so that they can give it back to the person in charge of the pattern to revise the pattern based on the comments.	
		W1-2-3-2 Become a Reader 	Consider yourself as a first time reader who knows nothing about the patterns and read the pattern to look for places that the pattern can be improved.	
		W1-2-3-3 Courage to Restart 	Have the courage to restart and write a pattern as much as it takes to make bring it to the best condition, even after	
	W1-3	W1-3-1	W1-3-1-1	Before starting to write the

	<p>Persistence to Improve</p>  <p>Always have the aspiration for reaching a better quality, and aim for something that is truly good in quality.</p>	<p>Going Beyond the Individual</p>  <p>Don't try to write everything on your own, but involve several sets of eyes to look at the pattern.</p>	<p>Preliminary Discussion</p> 	<p>pattern, deepen the discussion on what should be written in the pattern with the whole group, and search for information to be included in the pattern.</p>
	<p>W1-3-1-2 Pair Writing</p> 	<p>If you feel you can no longer have anything that you can contribute to a certain pattern, pass the pattern onto a different member for them to revise it.</p>		
	<p>W1-3-1-3 Writer Change</p> 	<p>If you feel you can no longer have anything that you can contribute to a certain pattern, pass the pattern onto a different member for them to revise it.</p>		
	<p>W1-3-2 Spiral Growth</p> 	<p>W1-3-2-1 Team Review</p> 	<p>If you feel you can no longer have anything that you can contribute to a certain pattern, pass the pattern onto a different member for them to revise it.</p>	
		<p>W1-3-2-2 Perfect Preparation</p> 	<p>Check multiple times before the group review process so that you can get the most out of it.</p>	
		<p>W1-3-2-3 Thorough Discussions</p> 	<p>Think that the most important rule for writing patterns is for everyone on the team to reach a consent, and continue the discussion until everyone is satisfied.</p>	
	<p>W1-3-3 Enduring Curiosity</p>  <p>Continue the inquiry process with the motivation of creating something excellent.</p>	<p>W1-3-3-1 Until Everyone's Satisfied</p> 	<p>Do not try to cut off project time by time, but endure and continue the process until everyone on the team is satisfied and finds a good point to lave off.</p>	
		<p>W1-3-3-2 Arranging Methods</p> 	<p>Be on the search for the best pattern writing process that fits your project.</p>	
		<p>W1-3-3-3 Perfect Body Condition</p> 	<p>When writing patterns, make sure to be considerate of your health and maintain a good body condition at all times.</p>	







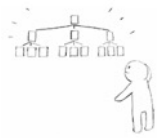



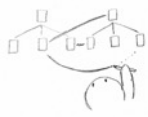


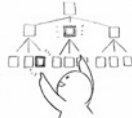
Pattern Writing Patterns (W2): Expressions that Move People














<p>W2 Expressions that Move People</p>  <p>Make the expressions strong enough that the readers would feel empowered to build the coming future.</p>	<p>W2-1 Gift of Discoveries</p>  <p>Make patterns so that they provide new discoveries and generate new ideas in the readers.</p>	<p>W2-1-1 Push on the Back</p>  <p>Make the Solution something that would become an opportunity for the readers to take a step towards a positive future.</p>	<p>W2-1-1-1 Feasible Idea</p> 	<p>Give the readers a practical idea that would push their backs to take the first step.</p>	
			<p>W2-1-1-2 Easy-Looking Expressions</p> 	<p>Make the expressions so that it would make the readers want to take the first step, and also make the step seem easy to take.</p>	
				<p>W2-1-1-3 Revaluing the Obvious</p> 	<p>State the obvious in the solution to reevaluate the act.</p>
		<p>W2-1-2 Grasping the Problem</p>  <p>Describe realistic problems and their causes that the readers are likely to face.</p>	<p>W2-1-2-1 Possible Problems</p> 	<p>Write a Problem that often happens in the Context so it can be conveyed to the reader.</p>	
				<p>W2-1-2-2 Cause of the Problem</p> 	<p>Think of the Problem as the result of opposing universal rules, and write the dilemma in the Forces section.</p>
				<p>W2-1-2-3 Feeling of Suffering</p> 	<p>Make the expressions in the Problem realistic enough that it would make the readers feel disturbed and want to avoid such a problem.</p>
		<p>W2-1-3 New Perspective</p>  <p>Think of patterns as a method for giving people new perspectives to look at things.</p>	<p>W2-1-3-1 Positive Perspective</p> 	<p>Make the descriptions so that it gives the readers way to look at things more positive than usual.</p>	
				<p>W2-1-3-2 Perfect Metaphor</p> 	<p>Select a metaphor that fits in with the message to make the pattern better imaginable.</p>
				<p>W2-1-33 Verbalizing Unsaid</p>	<p>Put information that people feel is important but have a</p>














			<p>Feelings</p> 	hard time describing it into words.
<p>W2-2</p> <p>Persuasive</p>  <p>Express the information in a logical and comprehensive manner so that the readers can truly understand its message.</p>	<p>W2-2-1</p> <p>Finding the Essence</p>  <p>Think thoroughly what the main message of the pattern that can't be missed is.</p>	<p>W2-2-1-1</p> <p>Real Problem</p> 	Write out the most prominent problem that occurs if the Solution isn't applied.	
		<p>W2-2-1-2</p> <p>Best-Fit Solution</p> 	Check to see if the Solution "truly" solves the problem described.	
		<p>W2-2-1-3</p> <p>Main Message</p> 	Find the message that is so essential to the pattern that there would be no meaning in writing the pattern without it.	
	<p>W2-2-2</p> <p>Sentence Tweaking</p>  <p>Make the pattern more persuasive by polishing its expressions so that there are no unnecessary parts to it.</p>	<p>W2-2-2-1</p> <p>Logical Coordination</p> 	Pay attention to the logical order within and between the different sections of the pattern.	
		<p>W2-2-2-2</p> <p>Signature Sentence</p> 	First express the most important message of the pattern in one sentence, and then add on supplementary information from the sentence after.	
		<p>W2-2-2-3</p> <p>Misunderstanding Prediction</p> 	Think of possible misunderstandings that could happen for the pattern, and fix its expressions so that it can be prevented	
	<p>W2-2-3</p> <p>Finishing it as Literature</p>  <p>Keep in mindset that you are creating a piece of literature, and focus on writing something that is easy to understand and accept for the readers.</p>	<p>W2-2-3-1</p> <p>Simple Expressions</p> 	Use words and expressions that are easy to understand to make the pattern more user-friendly.	
		<p>W2-2-3-2</p> <p>Coherent Sections</p> 	Check to see if each section/paragraph of the pattern is coherent as a set of sentences.	
		<p>W2-2-3-3</p> <p>Natural Flow</p>	Read the sentence out loud and check to see if it has a natural flow.	

					
<p>W2-3</p> <p>Empathetic</p>  <p>Pay attention to not only the logical correctness of the sentences, but also make sure the expressions are attractive that it would make the users feel excited and want to practice the patterns.</p>	<p>W2-3-1</p> <p>Reader's Context</p>  <p>Purposely leave some details out of the expression so that the readers can fill in the gaps with their own contexts.</p>	<p>W2-3-1-1</p> <p>Overlapping Experiences</p>  <p>Write the patterns so that the readers can feel some overlap with their own situations and past experiences.</p>			
		<p>W2-3-1-2</p> <p>Imaginable Abstractness</p>  <p>Adjust the abstraction level of the sentences to find the expression that is best for the users to understand and get an image of the pattern.</p>			
			<p>W2-3-1-3</p> <p>Specific Reader</p>  <p>Select a specific person in your life that you would like to give the pattern to, and revise the pattern based on your imagination of how they would react to the pattern when they read it.</p>		
		<p>W2-3-2</p> <p>Evolving Feelings</p>  <p>Imagine how the readers would feel when they read the pattern, and make sure it moves in the positive direction.</p>	<p>W2-3-2-1</p> <p>Problem to Avoid</p>  <p>Read the Problem and make sure it makes you want to avoid it in a realistic sense, and also hint that it can actually be avoided by providing the feeling of regret.</p>		
			<p>W2-3-2-2</p> <p>Motivational Solutions</p>  <p>Make the Solution statement exciting so that the readers would really want to do the action.</p>		
			<p>W2-3-2-3</p> <p>Excitement for the Future</p>  <p>Use positive words in the Consequence, and when read, it should provide a hint of an exciting future that the readers would want to make come true.</p>		
		<p>W2-3-3</p> <p>Words to be Shared</p>  <p>Make the expressions in the patterns attractive enough so that it would make the users want to share the pattern with others.</p>	<p>W2-3-3-1</p> <p>Easily Said Words</p>  <p>Use the pattern names in conversations with team members to see if its word choice is okay regarding its easiness to say.</p>		
			<p>W2-3-3-2</p> <p>Pattern Testing</p>  <p>Before publishing the patterns, test out the patterns by actually using it in your daily lives and get a feeling of how the idea given in the pattern would be accepted by users</p>		
			<p>W2-3-3-3</p> <p>Favorite Point</p>  <p>Make the pattern names, the introductory sentence, and the illustrations attractive enough so that the readers can find their favorite point within the pattern.</p>		


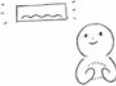












Pattern Writing Patterns (W3): Building a View of the World











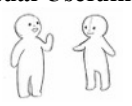



<p>W3</p> <p>Building a View of the World</p>  <p>Create new words of the future that would move people and bring social change by breathing life into not only the individual patterns, but also to the language as a whole.</p>	<p>W3-1</p> <p>Weaving the Whole</p>  <p>Build a pattern language by weaving the patterns into a coherent whole.</p>	<p>W3-1-1</p> <p>Creating Coherence</p>  <p>Create the coherence as a whole by grasping the message of each of the patterns and subgroups.</p>	<p>W3-1-1-1</p> <p>Essence of the Pattern</p>  <p>Understand the essence of the patterns by capturing what the pattern really wants to say.</p>
		<p>W3-1-1-2</p> <p>Group of 3</p>  <p>Form groups of three by bringing patterns that are semantically close together.</p>	
		<p>W3-1-1-3</p> <p>Umbrella Pattern</p>  <p>Create an "umbrella pattern" that extracts the common essence among the three patterns in the <i>Group of 3</i>.</p>	
	<p>W3-1-2</p> <p>Top-Down Gazing</p>  <p>Always have the structure of the whole in mind, and brush up the patterns based on a top-down view.</p>	<p>W3-1-2-1</p> <p>Grasping the Whole</p>  <p>Briefly read through each of the pattern, and get a grasp of the core essence of the whole pattern language you are creating.</p>	
		<p>W3-1-2-2</p> <p>Position within the Whole</p>  <p>Do not think of the meanings of the patterns as just the individual pattern itself, but consider its position within the whole and derive its role from there.</p>	
		<p>W3-1-2-3</p> <p>Gap Filling</p>  <p>Add new patterns that would fill in the missing gaps, or shift the meanings of existing patterns so that they can cover up for the missing parts.</p>	
		<p>W3-1-3</p> <p>Making Connections</p>  <p>Look at the relationship between the individual patterns and enforce the structure by finding local connections. Think of the <i>Natural Order</i> that the patterns can be read in.</p>	<p>W3-1-3-1</p> <p>Natural Order</p>  <p>Decide on the order that the patterns should be read in based on the relationship with other patterns and its relative position within the whole.</p>
		<p>W3-1-3-2</p> <p>Messaging Separation</p>  <p>Carefully separate out the semantic areas that each pattern covers, and if needed, make some changes to its contents.</p>	
	<p>W3-2</p> <p>A Different</p>	<p>W3-2-1</p> <p>Drawing an Ideal</p>	<p>W3-1-3-3</p> <p>Emergent Meaning</p>  <p>Find relationships between patterns where when two patterns are adjacent to one another their meanings are mutually enforced. If no such relations exist, think of what kind of relation could exist, and portray it to the audience.</p>
			<p>W3-2-1-1</p> <p>Live Atmosphere</p> <p>Imagine an actual person who is actually doing a</p>







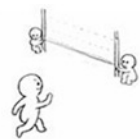





<p>World</p>  <p>Create a new ecosystem of characters and settings, and use words and illustrations that match that image.</p>	 <p>Make the goal of the pattern language clear, by capturing it with words and going back and forth between the ideal and the individual episodes.</p>	 <p>W3-2-1-2 Reachable Future</p> 	<p>good job at around you, and reflect their positive energy onto the pattern.</p> <p>Imagine what kind of a ideal future would be waiting if the solution was applied, and explain it as a seamless future from the present</p>	
	<p>W3-2-1-3 Pattern Leverage</p> 	<p>Think how each of the pattern would contribute to the future that the pattern language is trying to achieve as a whole.</p>		
	<p>W3-2-2 Trustable Vision</p>  <p>Be the first testers of the patterns to check to see if the patterns really are trustworthy and useful.</p>	<p>W3-2-2-1 User View</p>  <p>Check to see how the patterns would be viewed by those who are trying to enter this field that the pattern language is trying to support.</p>		
	<p>W3-2-2-2 Scene of the Advice</p>  <p>If you find someone facing one of the problems described in the pattern language, use the pattern to give alive to them, and check to see if it really is useful.</p>	<p>W3-2-2-3 Creating Precedence</p>  <p>Practice the patterns yourself and as a team to give feedback to the patterns based on the experience.</p>		
	<p>W3-2-3 Author's Sense</p>  <p>Trust your own since and go after what you feel is the good quality.</p>	<p>W3-2-3-1 Word Choice</p>  <p>Choose words that are natural and understandable to you.</p>		
	<p>W3-2-3-2 Personal Style</p>  <p>Trust your senses and make the patterns reflect you and your team's beliefs.</p>	<p>W3-2-3-3 The Art of Pattern Writing</p>  <p>Think of the pattern language as a piece of artwork, and work on the details so that it attracts fans.</p>		
	<p>W3-3</p>	<p>W3-3-1</p>	<p>W3-3-1-1</p>	<p>Make the pattern language something helpful for the</p>

	<p>Media to Create the Future</p>  <p>Think of pattern languages as a new common language that would show people a hint of the future and give them something to think and talk about to make it happen.</p>	<p>Making Change</p>  <p>Make the pattern language something that would change the society by first changing the view and actions of the readers.</p>	<p>Hints for Actions</p> 	<p>readers to gain ideas from it and by combining patterns, they can actively think and act.</p>
	<p>W3-3-1-2</p> <p>Push on the Back</p> 	<p>Make the pattern language attractive enough to make people want to practice it, and provide an push on the back to change their actions.</p>		
	<p>W3-3-1-3</p> <p>Recognition Device</p> 	<p>Make the pattern language something that would provide them with a way to recognize the ways they could act to make the ideal future become reality.</p>		
	<p>W3-3-2</p> <p>Common Language</p>  <p>Make the pattern language with the mindset of creating a common language that would connect people and create new communications.</p>	<p>W3-3-2-1</p> <p>Experience Bridging</p>  <p>Make a pattern language that would connect people with a diverse set of experiences to work together towards a common ideal future.</p>		
	<p>W3-3-2-2</p> <p>Helping Tool</p>  <p>Imagine a scene where you are using the patterns to give advice to someone to check if the patterns are really useful in daily occasions.</p>	<p>W3-3-2-3</p> <p>Seeds of Ideas</p>  <p>Write patterns that would be used in conversations to give new ideas to people.</p>		
	<p>W3-3-3</p> <p>Proposing new Aesthetics</p>  <p>Create a pattern language that would touch the deepest parts of people's hearts, and at the same time would excite them of the coming future.</p>	<p>W3-3-3-1</p> <p>Showing the Hidden Values</p>  <p>Check to see if the patterns capture "something that everyone is implicitly feeling but has not been put into words yet," and provides help to make this become reality.</p>		
	<p>W3-3-3-2</p> <p>New Standards</p>  <p>Make patterns that would become new standards for society to become more lively.</p>	<p>W3-3-3-3</p> <p>Paradigm Shift</p>  <p>Set yourself in a new paradigm that is beyond the borders of the current one, and check to see if this new paradigm that the pattern language is trying to actualize is really practical and functional than the current paradigm.</p>		














Pattern Symbolizing Patterns (S1): Creating Words











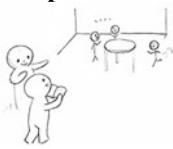


<p>S1</p> <p>Creating Words</p>  <p>Create new words and expressions that are symbolic of the pattern's contents.</p>	<p>S1-1</p> <p>Expressing the Essence</p>  <p>Get a grasp of the pattern's main message, and explore words that would perfectly express its meaning.</p>	<p>S1-1-1</p> <p>Essence Behind the Sentence</p>  <p>Do not be too framed by the expressions used in the pattern, and think of the pattern name by first understanding the essence of its message.</p>	<p>S1-1-1-1</p> <p>Pattern Assimilation</p>  <p>Read the pattern and gulp down its contents first, and then get away from its sentences and try to understand the main message of the pattern.</p>
			<p>S1-1-1-2</p> <p>Aim of the Act</p>  <p>Name not the actual action done in the pattern but think what the actual intent or aim of the act is, and think of the pattern name from there.</p>
			<p>S1-1-1-3</p> <p>Point of Emphasis</p>  <p>Find the point in the pattern where the most emphasis is put, and reflect that message onto the pattern name.</p>
		<p>S1-1-2</p> <p>New Words</p>  <p>Express the <i>Essence Behind the Sentence</i> with new expressions that are useable in daily conversations.</p>	<p>S1-1-2-1</p> <p>Meaningful Combinations</p>  <p>Collect words that are related to the <i>Aim of the Act</i> and the <i>Point of Emphasis</i>, and express the <i>Essence Behind the Sentence</i> by meaningfully combining those words.</p>
			<p>S1-1-2-2</p> <p>Mostly Noun Form</p>  <p>Become aware that you are naming the "set of experiences" made abstract and useable by others, and not necessarily the action itself: the pattern names should be in the noun form as much as possible.</p>
			<p>S1-1-2-3</p> <p>Straightforward Expressions</p>  <p>Try to keep the pattern name short: if the meaning of the pattern can be conveyed without a certain word in the pattern name, drop the word.</p>
		<p>S1-1-3</p> <p>Inquiry for the Perfect Expression</p>  <p>Polish the pattern name as its own thing and something separate from the actual contents of the pattern.</p>	<p>S1-1-3-1</p> <p>List of Pattern Names</p>  <p>Make a list of pattern names only so you can gaze over the whole list at once to think of better names.</p>
			<p>S1-1-3-2</p> <p>Synonym Search</p>  <p>Search for synonyms and similar expressions for the words that you are trying to use, and choose the best one through comparison.</p>
			<p>S1-1-3-3</p> <p>Via Another Language</p>  <p>Before deciding on a pattern name, check to see if the name won't have problems when expressed in other languages.</p>
		<p>S1-2</p>	<p>S1-2-1</p>















<p>Words for Daily Use</p>  <p>Always keep in mind that the pattern names will be used as a part of speech on a daily basis to make them easily understood and used.</p>	<p>Imaginable Words</p>  <p>Name the patterns so that readers would be able to understand the pattern's message even if they have not read the actual pattern yet.</p>	<p>Action Evoking Names</p>  <p>S1-2-1-2 Image Search Check</p>  <p>S1-2-1-3 Uniquely Specified Meanings</p> 	<p>the readers can imagine the actual actions done in the pattern.</p> <p>Do a image search on the words used in the patterns to make sure that its generic image matches the one you want for your pattern.</p> <p>Purposely try to read the pattern name in a way that is totally different from its intention to check to see if it doesn't cause any misunderstandings.</p>	
	<p>S1-2-2 Memorable Words</p>  <p>Make the pattern names memorable on its first sight to assure that the actual usage of the pattern.</p>	<p>S1-2-2-1 Easily Read Names</p>  <p>S1-2-2-2 Natural but Existent</p>  <p>S1-2-2-3 Differentiation of Names</p> 	<p>Once you have an idea for the pattern name, say it out aloud a couple of times to check if it is easily said and pronounced.</p> <p>Make the pattern names natural enough that they can be used in daily situations, but also make it so that it has a different presence than the other expressions used in daily conversations.</p> <p>Look through the <i>List of Pattern Names</i> and make sure that the pattern names are distinct enough that they can be naturally distinguished form one another.</p>	
	<p>S1-2-3 Adaptable Words</p>  <p>Make the pattern names natural enough so that everyone can adapt it as a part of their daily vocabulary</p>	<p>S1-2-3-1 Actual Usefulness</p>  <p>S1-2-3-2 Universal Expressions</p>  <p>S1-2-3-3 Expressions without Pronouns</p> 	<p>Simulate actual situations where the pattern would be used, and check to see if the pattern names are useable in natural conversations.</p> <p>Make the pattern names indiscriminant of age, gender, or positions, and make it usable by anyone.</p> <p>Make the pattern names an expression that does not include 1st, 2nd, or 3rd person pronouns.</p>	
	<p>S1-3 Symbol of the Future</p>	<p>S1-3-1 Atmosphere of the Word</p>	<p>S1-3-1-1 Positive Impression</p>  <p>S1-3-1-2</p>	<p>When choosing from a set of words, choose the one that gives the most positive impression to the reader.</p> <p>Make the pattern names so</p>

 <p>Make the pattern names so that it gives a positive impression expressive of the future that the pattern language is aiming for.</p>	 <p>Pay attention to not just the actual meanings of the word, but also the impressions that it gives to the reader, and choose words that are prospective of the future.</p>	<p>Euphonious Expression</p> 	<p>that it is harmonious and comfortable to say when spoken out loud.</p>
	<p>S1-3-1-3</p> <p>Visual Balance</p> 	<p>Pay attention to the visual impression of the word when printed on paper, and choose the expression that is visually balanced.</p>	
	<p>S1-3-2</p> <p>Easy First Step</p>  <p>Make the pattern names so that readers can easily put the pattern into action.</p>	<p>S1-3-2-1</p> <p>User-Friendly Expressions</p> 	<p>Make the pattern names not too sophisticated and friendly to the readers to make them want to put the patterns into practice</p>
	<p>S1-3-2-2</p> <p>Reachable Future</p> 	<p>Make the pattern expressions something in the reach of the readers if they put enough effort into it,</p>	
	<p>S1-3-2-3</p> <p>Charm for Change</p> 	<p>Make the pattern name so that it becomes a "good-luck charm" for someone who is about to practice the pattern.</p>	
	<p>S1-3-3</p> <p>Capture the World</p>  <p>Patterns names are something that gives people a new way of looking at the world: <i>Create Words</i> that would create new viewpoints.</p>	<p>S1-3-3-1</p> <p>Changing Perspectives</p> 	<p>Provide new viewpoints that would change the perspectives of people to look at the world around them.</p>
	<p>S1-3-3-2</p> <p>Reminder of Good Habits</p> 	<p>If a pattern is already commonly said but is something that is hard to put into action, make the pattern name something that reminds people of its importance.</p>	
	<p>S1-3-3-3</p> <p>Words of the Future</p> 	<p>Choose pattern names with the vision of the words being naturally used in the future world that the pattern language is trying to achieve.</p>	

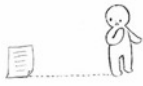

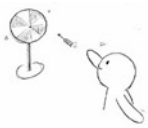











Pattern Symbolizing Patterns (S2): Image Drawing






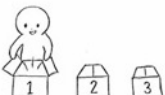







<p>S2</p> <p>Image Drawing</p>  <p>Express the essence of the pattern in one piece of illustration.</p>	<p>S2-1</p> <p>A Symbolic Piece</p>  <p>Precisely extract the essence of the pattern, and draw the illustration so that the audience can understand its meaning at a glance.</p>	<p>S2-1-1</p> <p>From the Whole to the Parts</p>  <p>Don't draw an additive illustration that are the sum of required elements, but draw the general image first and then fill in the details</p>	<p>S2-1-1-1</p> <p>Center Words</p> 	<p>Look for key words and expressions within the pattern that portray the essence of the pattern.</p>
		<p>S2-1-1-2</p> <p>Image Overview</p> 	<p>Imagine how the <i>Center Words</i> interrelated within the whole.</p>	
		<p>S2-1-1-3</p> <p>Starting Rough Sketch</p> 	<p>Start by moving your hand and drawing a couple of rough sketches to warm up your creative mind.</p>	
		<p>S2-1-2</p> <p>Line of Expression</p>  <p>After extracting the essence, think of the best expression to convey the message to the audience</p>	<p>S2-1-2-1</p> <p>Metaphoric Representation</p>  <p>Think of a metaphor that can be expressed visually of the actual action being done.</p>	
			<p>S2-1-2-2</p> <p>Visualizing Motions</p>  <p>Imagine the movement of the pattern from the words in the pattern, and express it with simple lines and shapes.</p>	
			<p>S2-1-2-3</p> <p>Associative Images</p>  <p>If a word is hard to express visually, do a game of association to think of words and ideas that have a similar image that can be drawn.</p>	
		<p>S2-1-3</p> <p>Intuitive Comprehension</p>  <p>Draw the illustration so that it draws attention to its most important part and gives an intuitive understanding to the audience.</p>	<p>S2-1-3-1</p> <p>Focal Point</p>  <p>Draw the illustration so that it draws attention to the part that expresses the essence of the pattern.</p>	
			<p>S2-1-3-2</p> <p>Simple Illustrations</p>  <p>Keep the illustration simple and lean by removing any parts of it that are unnecessary to convey the information.</p>	
			<p>S2-1-3-3</p> <p>Change the angle which</p>	














			<p>Composition Differentiating</p>  <p>the illustrations are drawn so that each of the illustrations can be differentiated from one another.</p>
<p>S2-2</p> <p>Paint a World</p>  <p>Create the atmosphere that you want to show the audience by expanding your imagination of the realistic situation.</p>	<p>S2-2-1</p> <p>Image Depth</p>  <p>Make the illustration have some depth so that the audience can better imagine the situation.</p>	<p>S2-2-1-1</p> <p>Three-Dimensional Elements</p> 	<p>Start by drawing a three-dimensional image of all the elements that exists in the atmosphere you want to draw.</p>
		<p>S2-2-1-2</p> <p>Camera Angle</p> 	<p>Imagine the situation of the illustration from a 360 angle, and choose the best angle that would highlight the important parts.</p>
		<p>S2-2-1-3</p> <p>Size in Relation to Depth</p> 	<p>Draw objects are up front larger, and those in the back smaller.</p>
	<p>S2-2-2</p> <p>Stand in the Scene</p>  <p>Put yourself in the shoes of one of the characters, and imagine the natural scene that would be happening.</p>	<p>S2-2-2-1</p> <p>Facing Direction and Posture</p> 	<p>Check to see if the natural direction that the characters are facing matches their posture.</p>
		<p>S2-2-2-2</p> <p>Relationship with Objects</p> 	<p>Understand the natural relationship between the character and the objects that they are using when drawing them.</p>
		<p>S2-2-2-3</p> <p>Consistent Story</p> 	<p>Set a consistent motif present throughout all the illustration that matches the theme of the pattern language, so that the audience can imagine a story out from the illustrations.</p>
		<p>S2-2-3</p> <p>Natural Expressions</p>  <p>Pay attention to the details such as the shapes of small objects and adjust their balance.</p>	<p>S2-2-3-1</p> <p>Lack of Unnaturalness</p> 
	<p>S2-2-3-2</p> <p>Balanced Placement</p> 		<p>Adjust the positions of characters and objects in the illustration so it has a natural arrangement</p>
	<p>S2-2-3-3</p>		<p>Think of the composition</p>

			<p>Meaningful Directions</p> 	and the direction of the illustration so that it matches the natural bodily sense of people.
<p>S2-3</p> <p>Breathe Life</p>  <p>Create an elaborate piece of art as if you are going to breathe life into the characters.</p>	<p>S2-3-1</p> <p>Natural Cuteness</p>  <p>Draw the illustrations so that it portrays the natural and internal charm that the characters have.</p>	<p>S2-3-1-1</p> <p>Simple Characters</p> 	Make the characters simple so that anyone can sympathies with them regardless of age or gender.	
		<p>S2-3-1-2</p> <p>Subtle Gestures</p> 	Illustrate the charm of the characters not by their physical traits, but by their gestures as lively characters.	
		<p>S2-3-1-3</p> <p>Stationary and Affectionate</p> 	There is no need to always make the characters move dynamically, but at times their static positions become sources for their charm.	
	<p>S2-3-2</p> <p>Be in their Shoes</p>  <p>Put yourself in the shoes of each character in the scene, and build the atmosphere of the scene by creating variations in their expressions and movements.</p>	<p>S2-3-2-1</p> <p>Empathetic Drawing</p> 	Determine what kind of a background each character has, and think of what they would be feeling in the situation.	
		<p>S2-3-2-2</p> <p>Emotional Actions</p> 	Trace the emotions of the characters found through the <i>Empathetic Drawing</i> and reflect their feelings onto the illustrations.	
		<p>S2-3-2-3</p> <p>Drawing while Smiling</p> 	When drawing the expressions of the characters, make the same expressions yourself as you draw them.	
		<p>S2-3-3</p> <p>Creating Excitement</p>  <p>Go the extra mile by adding some ideas to amplify the positivity of the illustration.</p>	<p>S2-3-3-1</p> <p>Positive Image</p> 	As a whole, make the illustrations have a positive image.
			<p>S2-3-3-2</p> <p>Spice of Playfulness</p> 	Add some Easter eggs into the illustrations that could possibly create some fans, even if it does not directly contribute to the conveying of the pattern's message.
	<p>S2-3-3-3</p> <p>Best Shot</p> 		Think that the world of pattern illustrations have a time axis, and draw the best moment that captures the movement of the scene.	

Pattern Symbolizing Patterns (S3): Editing Literature

<p>S-C</p> <p>Editing Literature</p>  <p>Design the booklet of the pattern language by considering how you want the readers to meet and read the patterns.</p>	<p>S3-1</p> <p>Grabbing Hook</p>  <p>Add an attractive introductory sentence after the Pattern name to grab the attention of the readers.</p>	<p>S3-1-1</p> <p>Meaning Refinement</p>  <p>Start with writing an introduction that would provide readers with supplementary information that the pattern name itself does not convey.</p>	<p>S3-1-1-1</p> <p>Interpretation Narrowing</p>  <p>Express the specific quality described in the pattern, and with it narrow the scope of interpreting the pattern for the readers.</p>
			<p>S3-1-1-2</p> <p>Complementing Restatement</p>  <p>Make the introductory sentence explanatory by providing specific information that complements the pattern name.</p>
			<p>S3-1-1-3</p> <p>Added Action</p>  <p>Describe a motion or action in the introductory sentence so that the readers can get a grasp of what they should do in the pattern.</p>
		<p>S3-1-2</p> <p>Emotional Pull-in</p>  <p>Make the introductory sentence so that it is not just explanatory, but also grabs the hearts of the readers and pulls them in.</p>	<p>S3-1-2-1</p> <p>Hint of Success</p>  <p>Describe the potential future that can be achieved by practicing the pattern.</p>
			<p>S3-1-2-2</p> <p>Attention-Grabbing Question</p>  <p>Express the importance of the pattern by pitching a question to the readers that asks them about it.</p>
			<p>S3-1-2-3</p> <p>Lead to the Illustration</p>  <p>Write an introduction that would could connect and lead into the pattern illustration.</p>
		<p>S3-1-3</p> <p>Poetic Softness</p>  <p>Make the voice of the introductory sentence poetic as if you are writing lyrics to a song.</p>	<p>S3-1-3-1</p> <p>Interesting Voice</p>  <p>Make the introductory sentence emotional as if it is a tag line of a product.</p>
			<p>S3-1-3-2</p> <p>Grandness Mitigation</p>  <p>If the pattern name seems too grand and intimidating, add an introductory sentence that would mitigate its grandness and make it seem more feasible.</p>
			<p>S3-1-3-3</p> <p>Pleasant Rhythm</p>  <p>Make the introductory sentence have a steady flow that readers can read through with good rhythm</p>
		<p>S3-2</p>	<p>S3-2-1</p>

	<p>Qualitative Depth</p>  <p>Collect and place quotes or cases that are essentially close to the pattern's message, and convey the quality that the pattern is trying to present.</p>	<p>Wide Range</p>  <p>Look for quotes and cases from a wide range of areas to collect elements from a diverse set of people and fields.</p>	<p>Quantities Search</p>  <p>S3-2-1-2 Plenty of Candidates</p>  <p>S3-2-1-3 Balanced Selection</p> 	<p>and cases by first going through numerous amounts of books and web pages to collect quantities amounts.</p> <p>Let each pattern have several quotes and cases, and select them so that they together create a good balanced message.</p> <p>Use quotes and cases from a diverse set of people.</p>
	<p>S3-2-2 Order of Development</p>  <p>Arrange the quotes so that their order each introduces a new aspect of the pattern to the reader, each step deepening their understanding.</p>	<p>S3-2-2-1 Straightforward Fundamentals</p>  <p>S3-2-2-2 Meaning Shift</p>  <p>S3-2-2-3 Takeoff Quote</p> 	<p>For the first quote, choose one that is straightforward and gives the reader a deeper understanding of the pattern.</p> <p>Include a quote that is slightly shifted from what is said in the pattern itself, to evoke a new interpretation of the pattern.</p> <p>End off with a quote that may not seem directly related to the pattern at first, but when read in order after the other quotes, it brings great impact and meaning as a coherent whole.</p>	
	<p>S3-2-3 Borrowing Quality</p>  <p>Enhance the quality of the pattern by using quotes by outstanding people.</p>	<p>S3-2-3-1 Representative Figure</p>  <p>S3-2-3-2 Elegant Quote</p>  <p>S3-2-3-3 Everyday Stock</p> 	<p>Use quotes by people who are acknowledged in a diverse range of fields to make the pattern more sympathetic and persuasive.</p> <p>Trust your own senses and choose quotes that you find attractive.</p> <p>Have an antenna open for good quotes in your everyday life, and make a repository that you can reference when you actually start to look for quotes.</p>	
	S3-3	S3-3-1	S3-3-1-1	Include in the format of the

<p>User-Friendly Layout</p>  <p>Make the layout of the booklet so that it is easy for the user to read and the message is best conveyed.</p>	<p>Layout with Contrast</p>  <p>Employ contrast in the layout so that it visually appeals.</p>	<p>Separation of Logic and Intuition</p>  <p>pattern two separate areas where the readers can intuitively get a grasp of the pattern, and logically read through and understand it.</p>
	<p>S3-3-1-2</p> <p>Attractive Words</p>  <p>Make the sentences with the most important message of the pattern in bold so that it is easy for the readers to find.</p>	<p>S3-3-1-3</p> <p>Guiding Marks</p>  <p>Use marks and words that would guide the readers through the pattern so they can understand its contents better.</p>
	<p>S3-3-2</p> <p>Cushion Space</p>  <p>Provide some extra whitespace in the layout so that readers can read through the pattern language without any resistance.</p>	<p>S3-3-2-1</p> <p>Placing it There</p>  <p>Place the pattern sentences in the center of the paper, and provide some blank space around it, as if you are placing the pattern there for the readers to come get it.</p>
	<p>S3-3-2-2</p> <p>Framing Whitespace</p>  <p>Provide whitespace around the pattern illustration as if you are framing the piece of artwork.</p>	<p>S3-3-2-3</p> <p>Blank to Rest</p>  <p>Provide a blank page in the pattern booklet so that readers can take a moment to catch their breaths when reading through the patterns.</p>
	<p>S3-3-3</p> <p>Natural Flow</p>  <p>Commit to removing all unnaturalness in the pattern so that readers can read through the pattern in ease.</p>	<p>S3-3-3-1</p> <p>Modest Illustrations</p>  <p>Make the illustration small enough so that it balances the font size, and readers can easily look at both the illustration and the sentences alternately.</p>
	<p>S3-3-3-2</p> <p>Smooth Eye Movement</p>  <p>Make the layout so that the eye movement of the readers flow in a natural manner.</p>	<p>S3-3-3-3</p> <p>Prototype Check</p>  <p>Making booklets and cards of the patterns are one type of creation: print them out and make an actual-size prototype to check its quality.</p>