Improving the Quality of Creative Practices with Pattern Languages
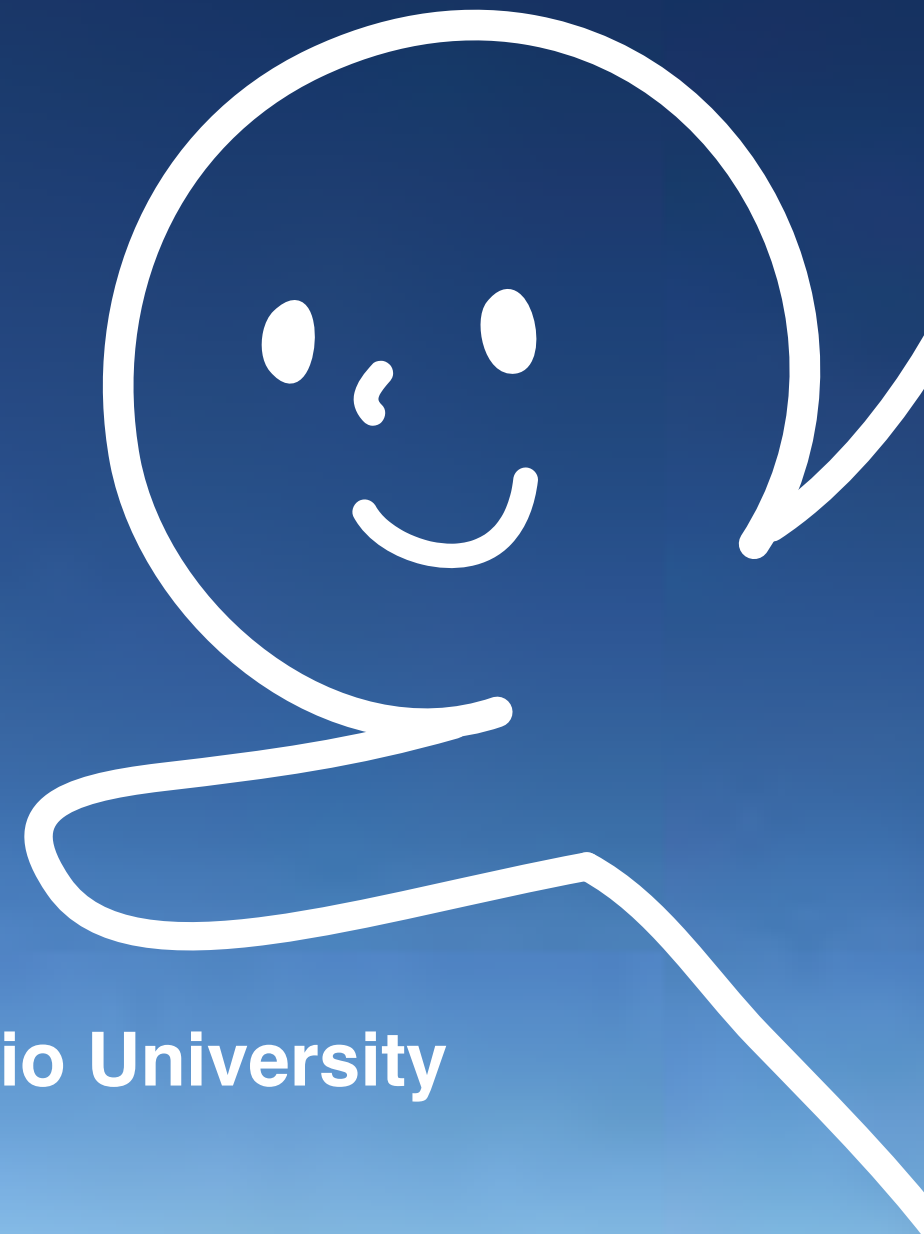
Kia Ora!

Takashi Iba 井庭 崇

Ph.D in Media and Governance
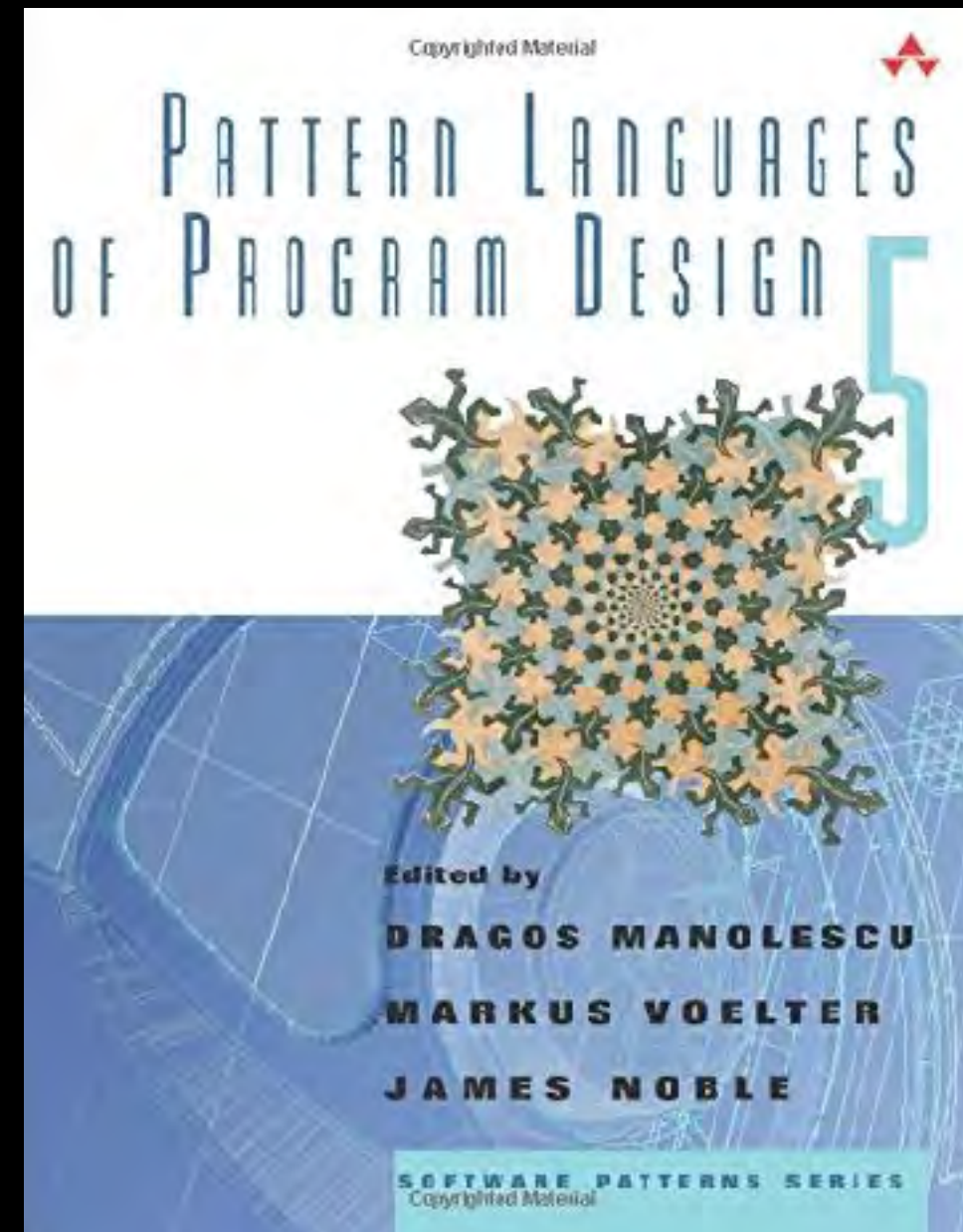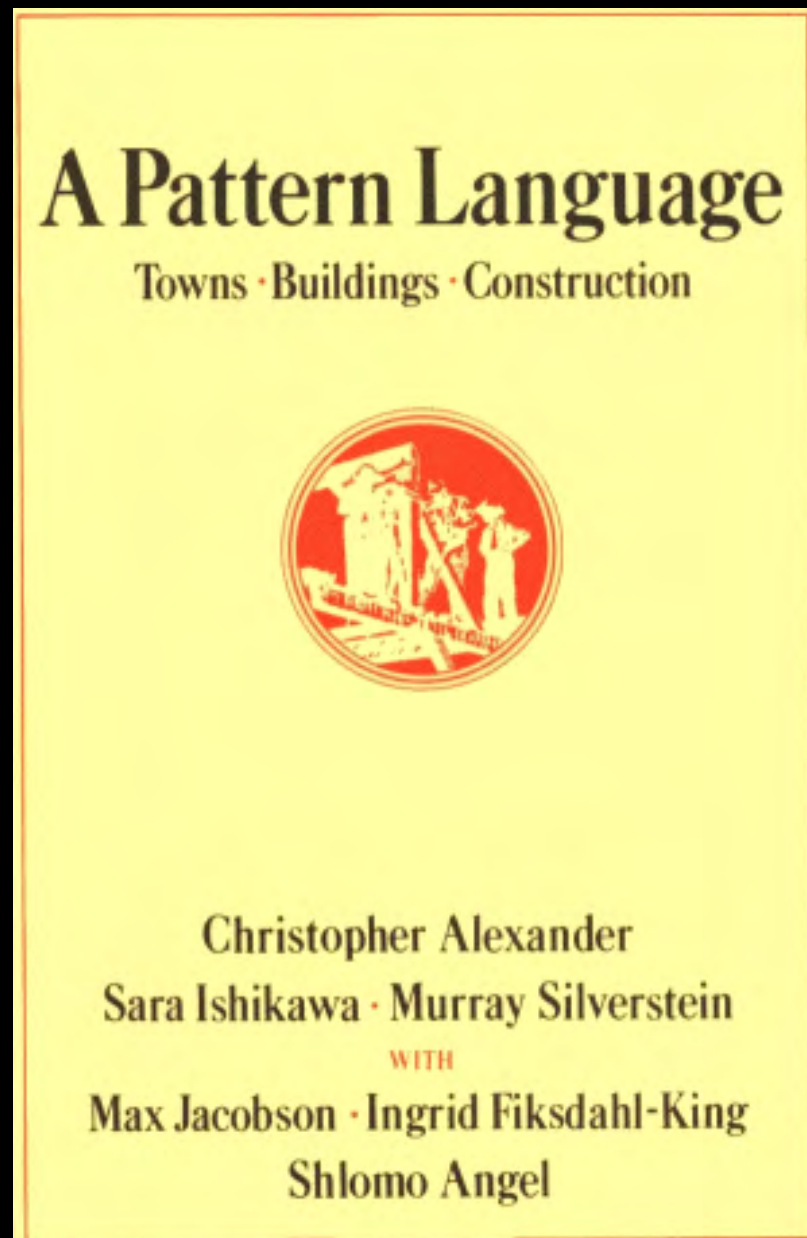**Professor at Faculty of Policy Management, Keio University**
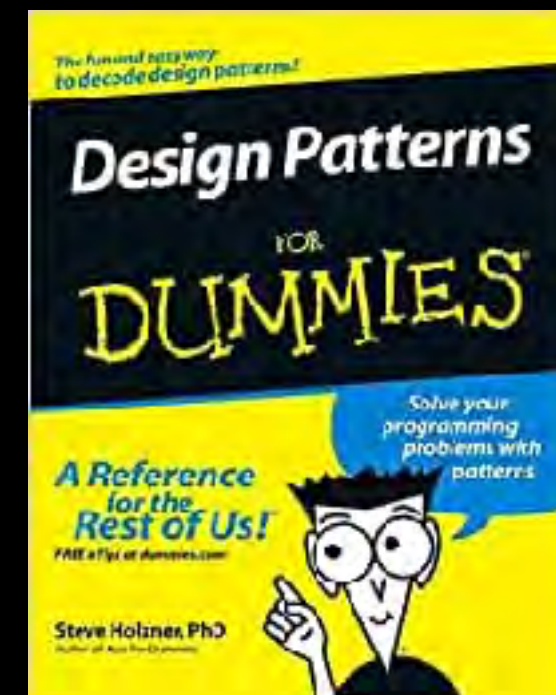**President of CreativeShift, Inc.**

I'll upload the PDF file of this slides
tonight on the Internet,
so please check detail information of the slides later.

#SPLASH2022

Have you ever heard the word "Pattern Language"?

A Pattern Language
Towns · Buildings · Construction

Christopher Alexander
Sara Ishikawa · Murray Silverstein
WITH
Max Jacobson · Ingrid Fiksdahl-King
Shlomo Angel

PATTERN LANGUAGES
OF PROGRAM DESIGN 5

Edited by
DRAGOS MANOLESCU
MARKUS VOELTER
JAMES NOBLE

SOFTWARE PATTERNS SERIES

Have you ever heard the word "Design Patterns"?
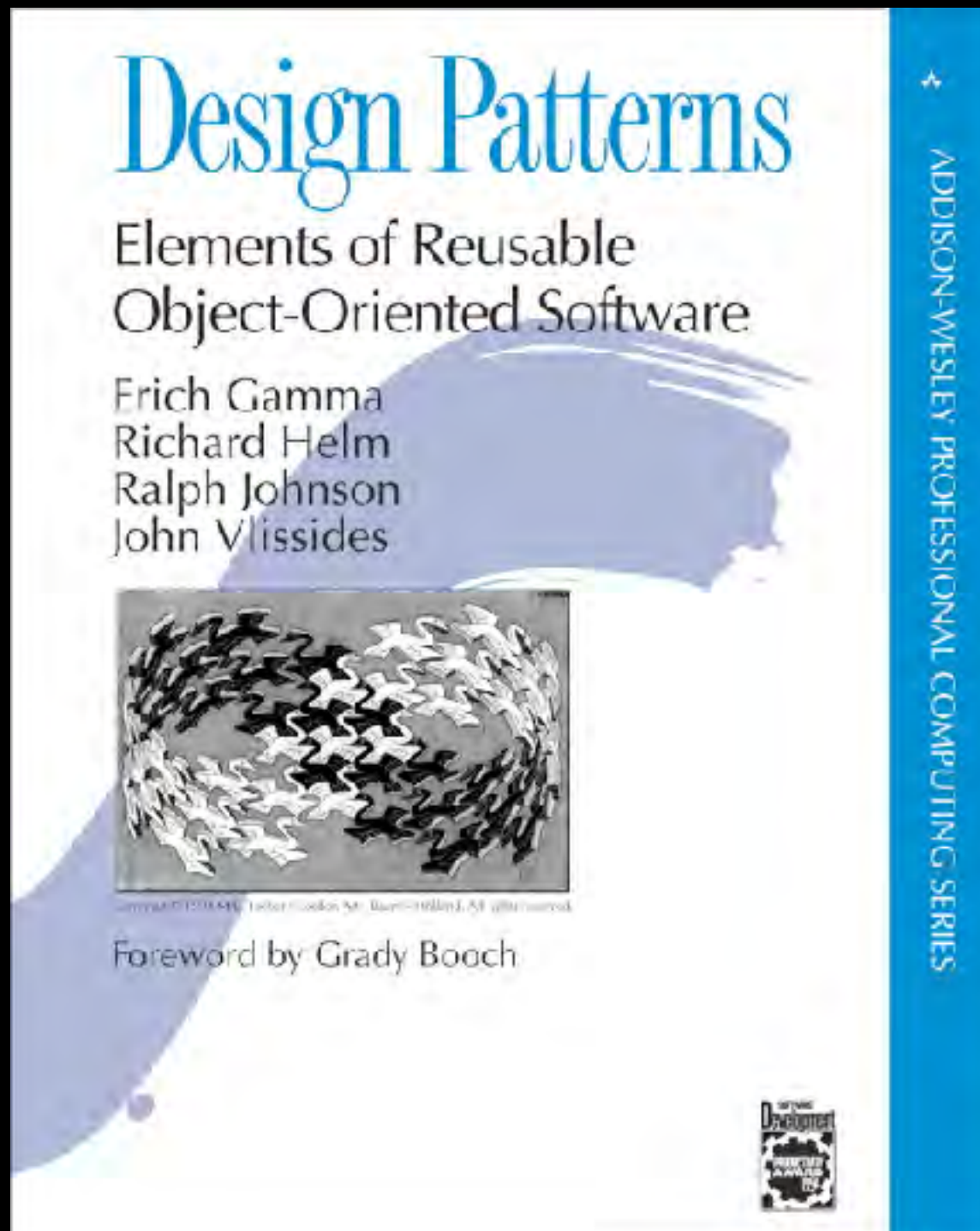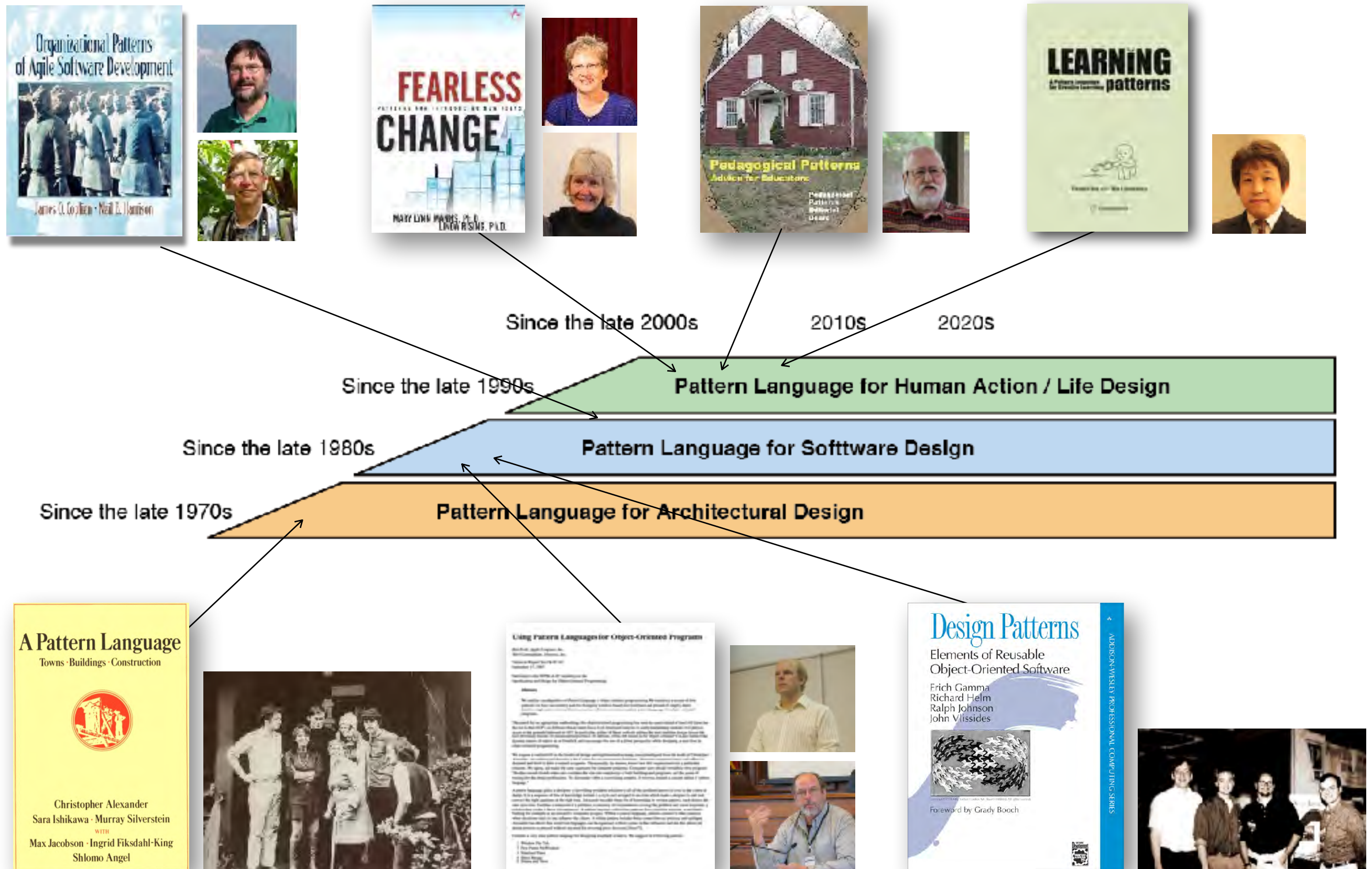
"Design Patterns" is known as a kind of "Pattern Language"

(or Pattern-Language-ish collection)

in software domain.

Evolution of Pattern Language

In this keynote, I'm going to …

invite you to the world of *pattern language*

by …

- showing **what kind of pattern languages** have been created in the area of human action (activity design) including education, creative works, welfare, and everyday life,

- introducing our method of **how to create** a pattern language from narrative of practitioners.

So that …

you can start creating a pattern language in your domain and write papers on them.

PATTERN LANGUAGES OF PROGRAMS CONFERENCE **2022**

PLoP 2022 will be held ONLINE (again)

PLoP22

OPOURRI | PLOP PAPERS | SL-PLOP PAPERS | REGISTRATION | PROGRAM

29TH CONFERENCE ON PATTERN LANGUAGES OF PROGRAMS

sometimes co-located with SPLASH

PLoP2012 is collocated with SPLASH

PLoP 12

PLoP 2015 will be co-located with SPLASH in

PLoP 15

https://www.hillside.net/plop/2022/

europlop

5.-9. July 2023

26th European Conference on Pattern Languages of Programs (EuroPLoP 2023)
Kloster Irsee, Germany

| Conference | Patterns | Hillside Europe |

Home

Submission

Acceptance Criteria

Proceedings

The Conference

Important Dates

Feb. 6, 2023:   Deadline for initial paper submission

https://europlop.net/

Pattern Language
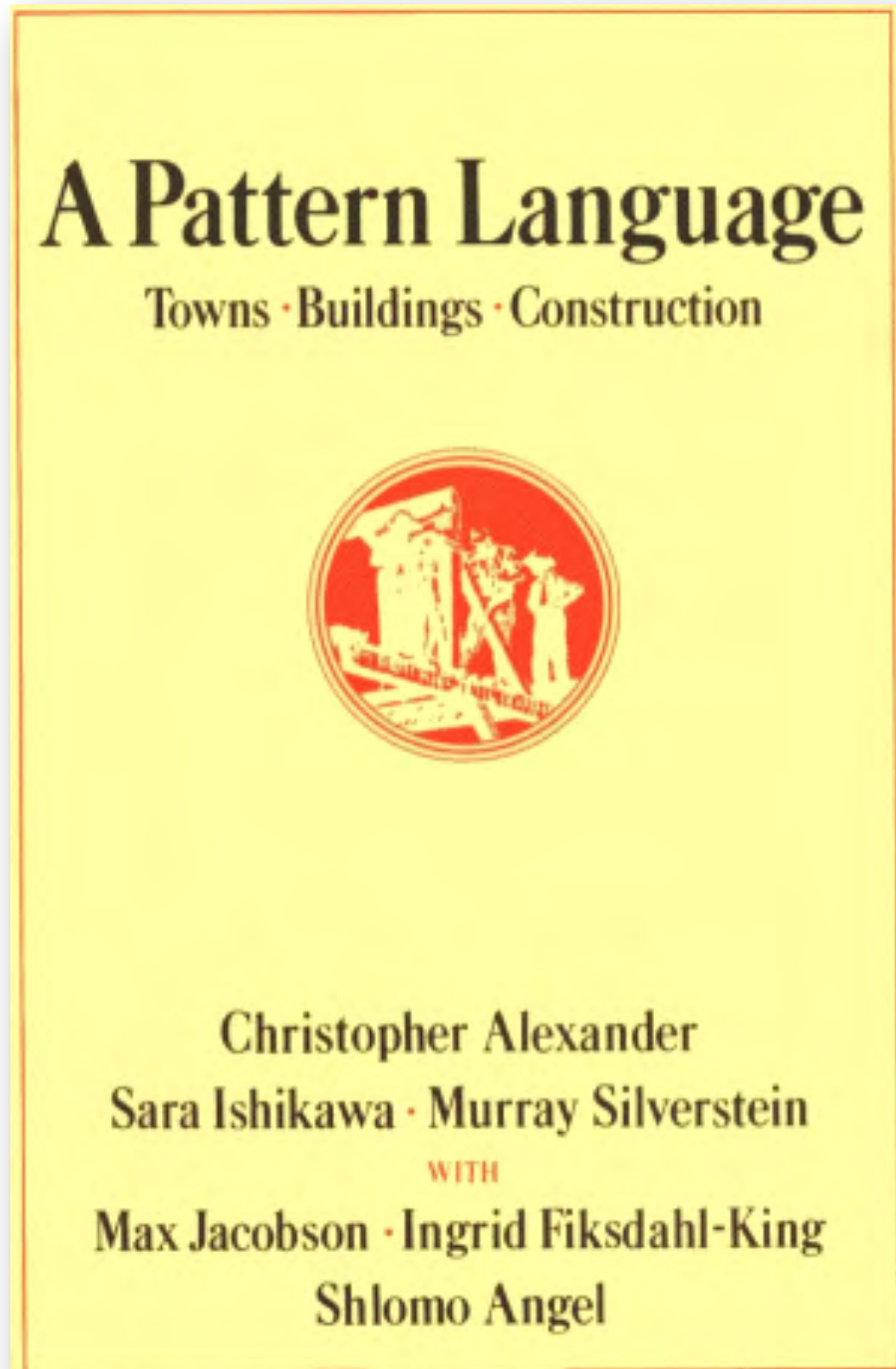
Pattern Language

A system of words describing generative rules for good designs or good rules of thumb (common patterns in various cases) in a certain domain, for sharing the practical knowledge with others to support achieving good results in their practice.

A Pattern Language in Architecture   since 70's


Christopher Alexander

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

"*At the moment when a person is faced with an act of design, he does not have time to think about it from scratch*. He is faced with the need to act, he has to act fast; and the only way of acting fast is to rely on the various **rules of thumb** which he has accumulated in his mind. In short, **each one of us**, no matter how humble, or how elevated, **has a vast fabric of rules of thumb**, in our minds, **which tell us what to do when it comes time to act**. At the time of any act of design, all we can hope to do is to use the **rules of thumb** we have collected, in the best way we know how."
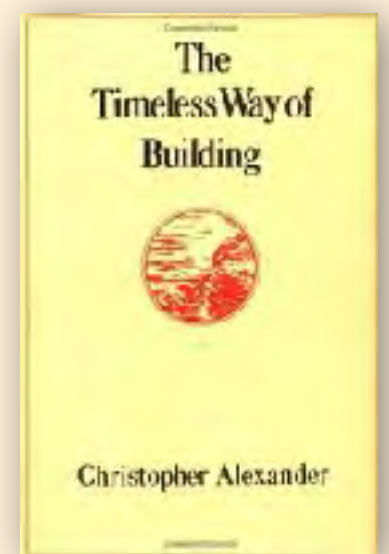
C. Alexander, *The Timeless Way of Building*, Oxford University Press, 1979

159. Light on Two Sides of Every Room **

With light on two sides . . . . . and without

each room has light on two sides

Wrinkle the edge.

When they have a choice, people will always gravitate to those rooms which have light on two sides, and leave the rooms which are lit only from one side unused and empty.

This pattern, perhaps more than any other single pattern, determines the success or failure of a room. The arrangement of daylight in a room, and the presence of windows on two sides, is fundamental.
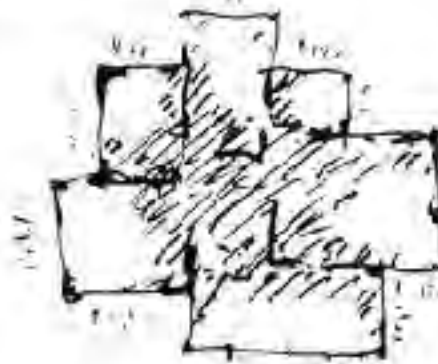
Therefore:
Locate each room so that it has outdoor space outside it on at least two sides, and then place windows in these outdoor walls so that natural light falls into every room from more than one direction.

C. Alexander, S. Ishikawa, M. Silverstein, with M. Jacobson, I. Fiksdahl-King, and S. Angel, *A Pattern Language: Towns, Buildings, Construction,* Oxford University Press, 1977
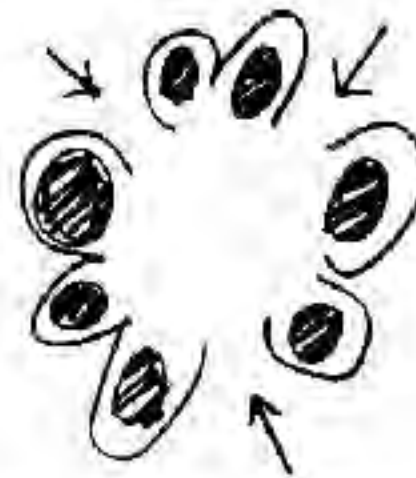
124. Activity Pockets **

The life of a public square forms naturally around its edge. If the edge fails, then the space never becomes lively.

In more detail: people gravitate naturally toward the edge of public spaces. They do not linger out in the open. If the edge does not provide them with places where it is natural to linger, the space becomes a place to walk through, not a place to stop. It is therefore clear that a public square should be surrounded by pockets of activity: shops, stands, benches, displays, rails, courts, gardens, new racks. In effect, the edge must be scalloped.

As the activities grow around the space, it becomes more lively.

A conceptual diagram.
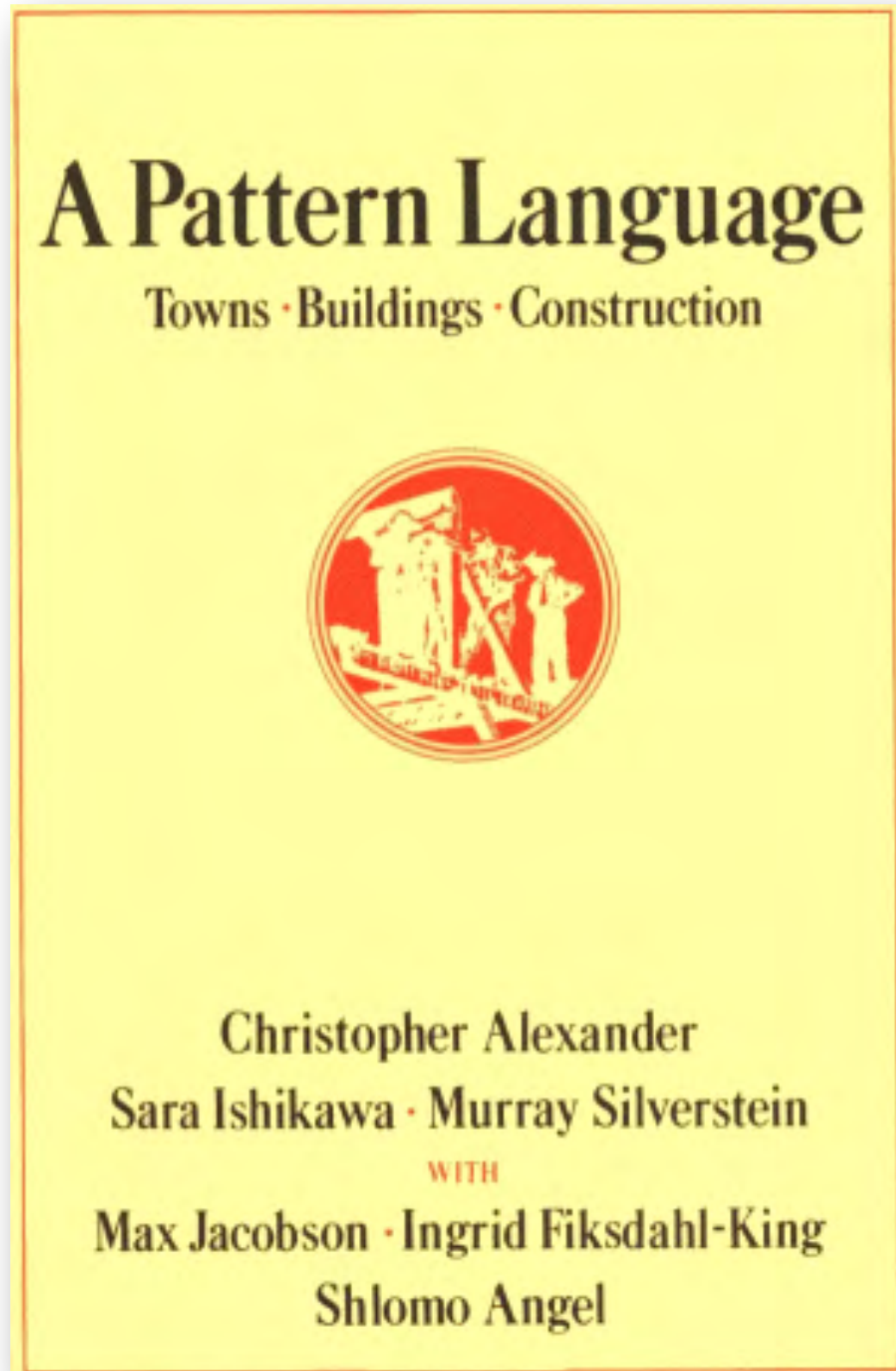
paths

pockets of activity
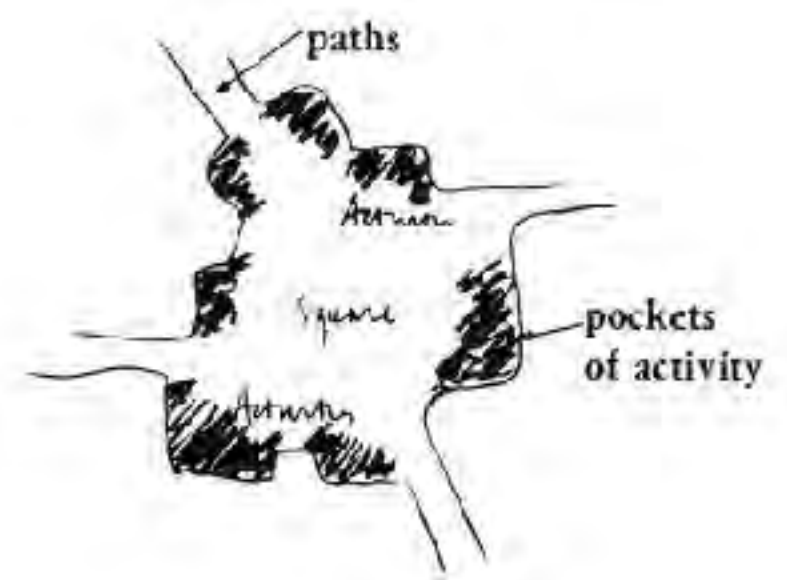
Therefore:
Surround public gathering places with pockets of activity --- small, partly enclosed areas at the edges, which just forward into the open space between the paths, and contain activities which make it natural for people to pause and get involved.

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

A Pattern Language in Architecture   since 70's

Christopher Alexander

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

Pattern Languages in Software Design

since late 80's

Kent Beck & Ward Cunningham, "Using Pattern Languages for Object-Oriented Program", *OOPSLA '87*, 1987

"We outline our adaptation of Pattern Language to object-oriented programming."

Using Pattern Languages for Object-Oriented Programs

Kent Beck, Apple Computer, Inc.
Ward Cunningham, Tektronix, Inc.

Technical Report No. CR-87-43
September 17, 1987

Submitted to the OOPSLA-87 workshop on the
Specification and Design for Object-Oriented Programming.

Abstract

We outline our adaptation of Pattern Language to object-oriented programming. We sumarize a system of five patterns we have successfuly used for designing window-based user interfaces and present in slightly more detail a single pattern drawn from our current effort to record a complete pattern language for object-oriented programs.

The search for an appropriate methodology for object-oriented programming has seen the usual rehash of tired old ideas, but the fact is that OOP is so different that no mere force-fit of structured analysis or entity-relationship methods will provide access to the potential inherent in OOP. In particular, neither of these methods address the user interface design issues that have obviously become of paramount importance. In addition, while E-R seems to be "object-oriented" it is not suited to the dynamic nature of objects as in Smalltalk and encourages the use of a global perspective while designing, a sure lose in object-oriented programming.

We propose a radical shift in the burden of design and implementation, using concepts adapted from the work of Christopher Alexander, an architect and founder of the Center for Environmental Structures. Alexander proposes homes and offices be designed and built by their eventual occupants. These people, he reasons, know best their requirements for a particular structure. We agree, and make the same argument for computer programs. Computer users should write their own programs. The idea sounds foolish when one considers the size and complexity of both buildings and programs, and the years of training for the design professions. Yet Alexander offers a convincing scenario. It revolves around a concept called a "pattern language."

A pattern language guides a designer by providing workable solutions to all of the problems known to arise in the course of design. It is a sequence of bits of knowledge written in a style and arranged in an order which leads a designer to ask (and answer) the right questions at the right time. Alexander encodes these bits of knowledge in written patterns, each sharing the same structure. Each has a statement of a problem, a summary of circumstances creating the problem and, most important, a solution that works in those circumstances. A pattern language collects the patterns for a complete structure, a residential building for example, or an interactive computer program. Within a pattern language, patterns connect to other patterns where decisions made in one influence the others. A written pattern includes these connections as prologue and epilogue. Alexander has shown that nontrivial languages can be organized without cycles in their influence and that this allows the design process to proceed without any need for reversing prior decisions [Alex77].

Consider a very small pattern language for designing Smalltalk windows. We suggest the following patterns:
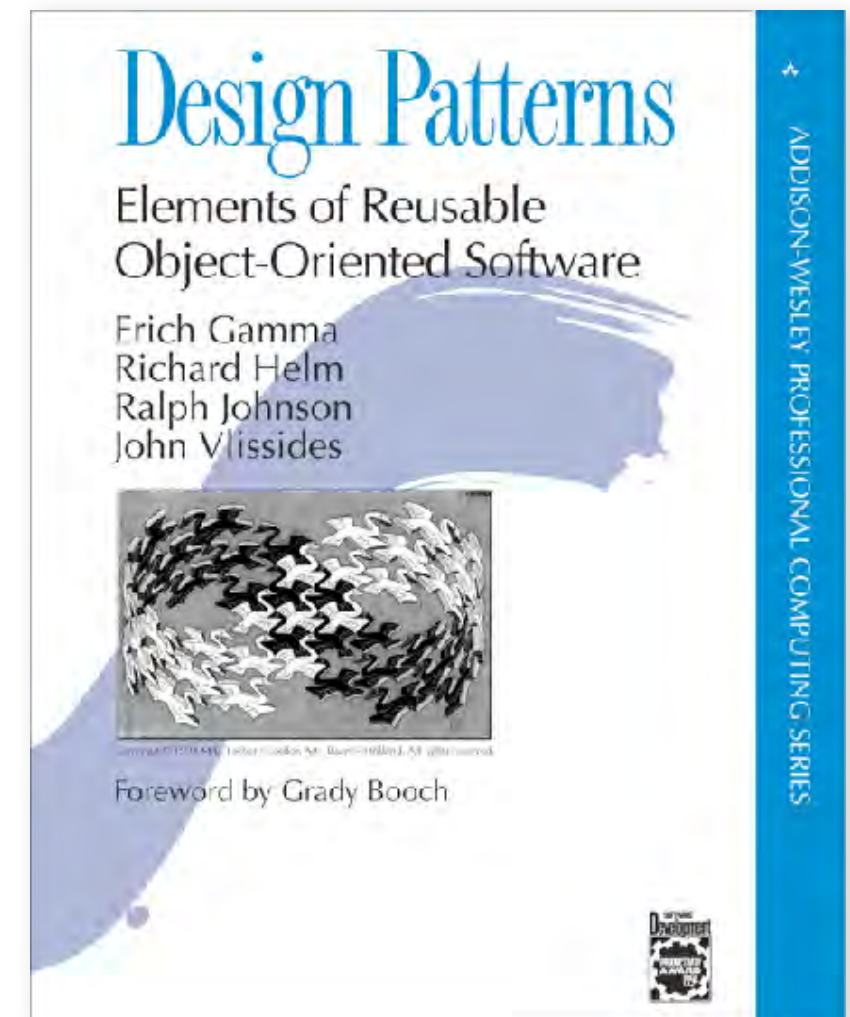
Pattern Languages in Software Design

'Design Patterns'   since late 80's

Erich Gamma, Richard Helm, Ralph Johnson, John M. Vlissides,
Design Patterns: Elements of Reusable Object-Oriented Software,
Addison-Wesley Professional, 1994

Gang of Four

Pattern Languages in Software Design

since late 80's

Conferences on Pattern Language

PATTERN LANGUAGES OF PROGRAMS CONFERENCE **2022**

PLoP 2022 will be held ONLINE (again)

PLoP22

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Every year
in North America

Writers' Workshop

europlop

5.-9. July 2023

26th European Conference on Pattern
Languages of Programs (EuroPLoP 2023)
Kloster Irsee, Germany

Every year near
Munich, Germany

VikingPLoP 2018
Fredensborg, Denmark 19 to 22 April

AsianPLoP 2019: 8th Asian Conference
on Pattern Languages of Programs

Mar 20-22, 2019, Tokyo, Japan

SugarLoafPLoP 2018
Huaso Edition

EduPLoP
Writing educational patterns

Pattern Languages for Teams for Software Development

since late 90's -

○ James O. Coplien, Neil B. Harrison, *Organizational Patterns of Agile Software Development*, Prentice Hall, 2004

○ Jeff Sutherland, James O. Coplien, *The Scrum Patterns Group, A Scrum Book: The Spirit of the Game,* 1st Edition, Pragmatic Bookshelf, 2019
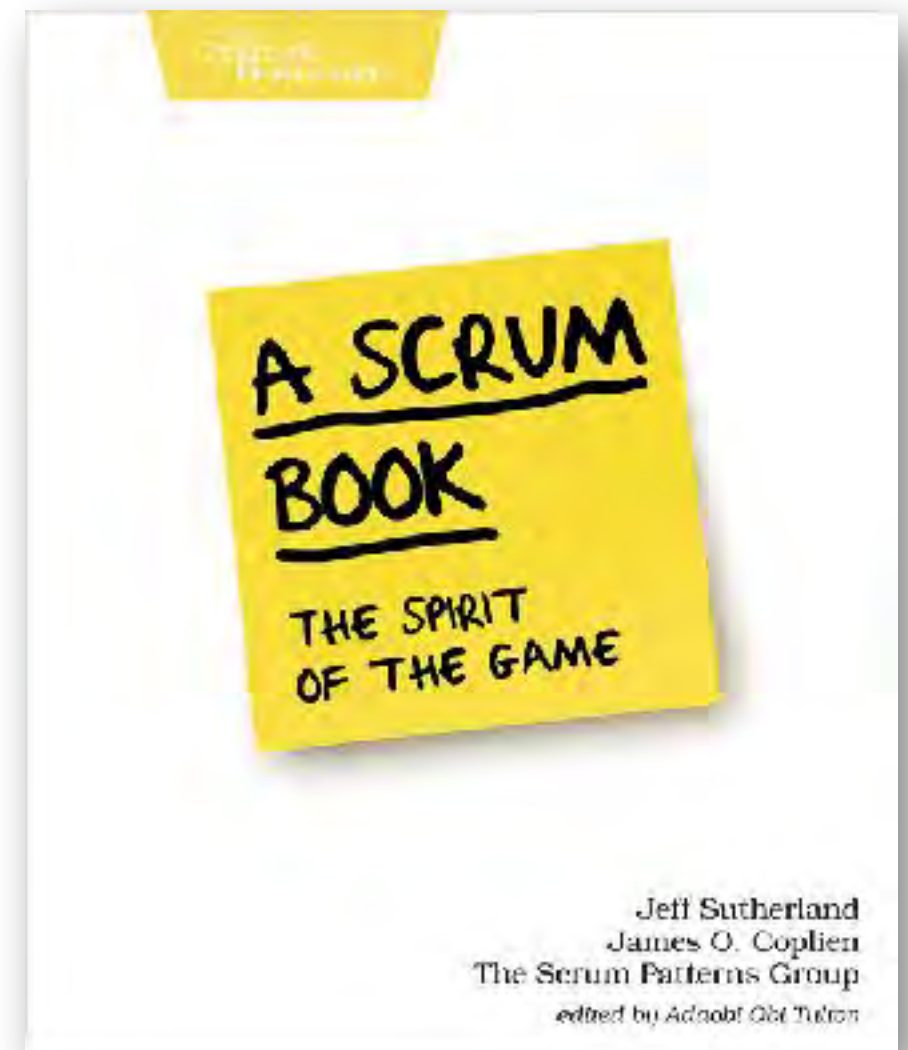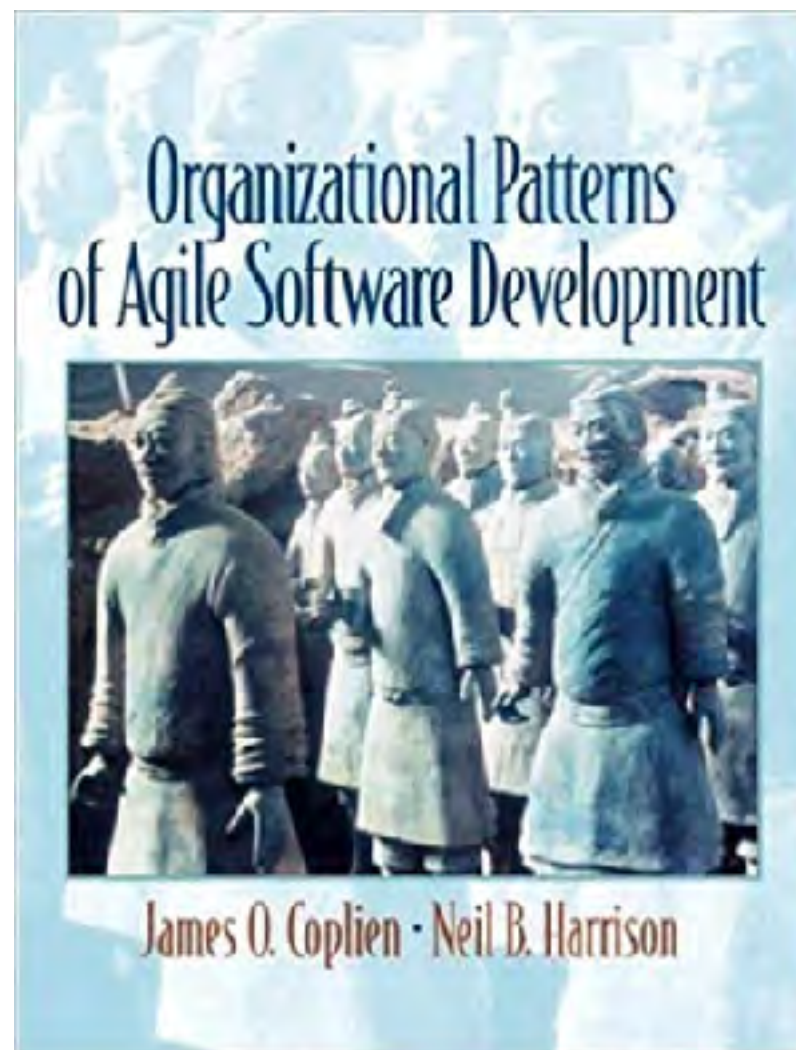
Pattern Languages for Human Actions

since 2000's -

○ Pedagogical Patterns Editorial Board, *Pedagogical Patterns: Advice For Educators*, Createspace., 2012

○ Mary Lynn Manns, Linda Rising, *Fearless Change: Patterns for Introducing New Ideas*. Addison-Wesley, 2005

○ Mary Lynn Manns, Linda Rising, *More Fearless Change: Strategies for Making Your Ideas Happen*, Addison-Wesley Professional, 2015
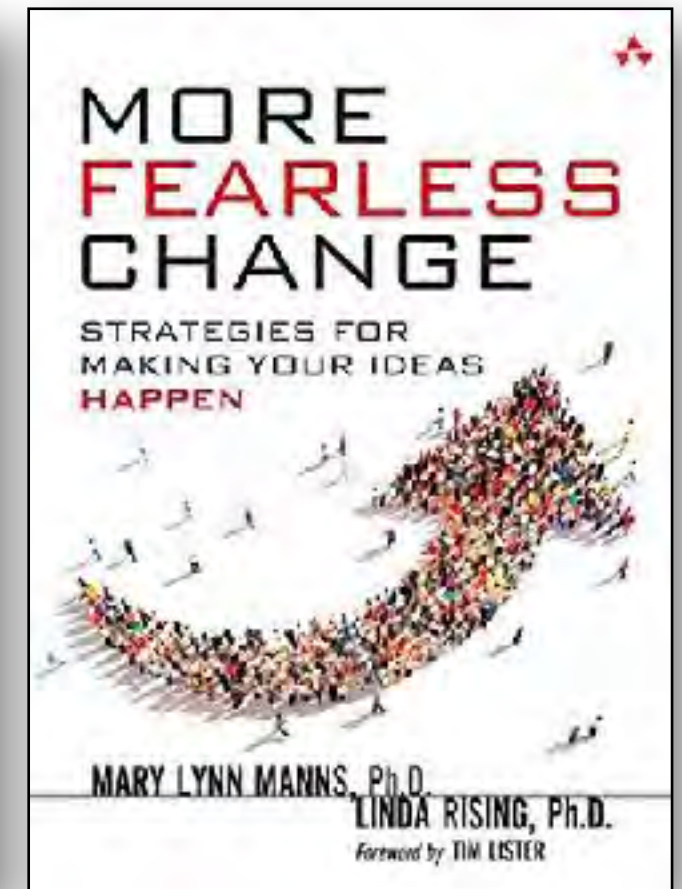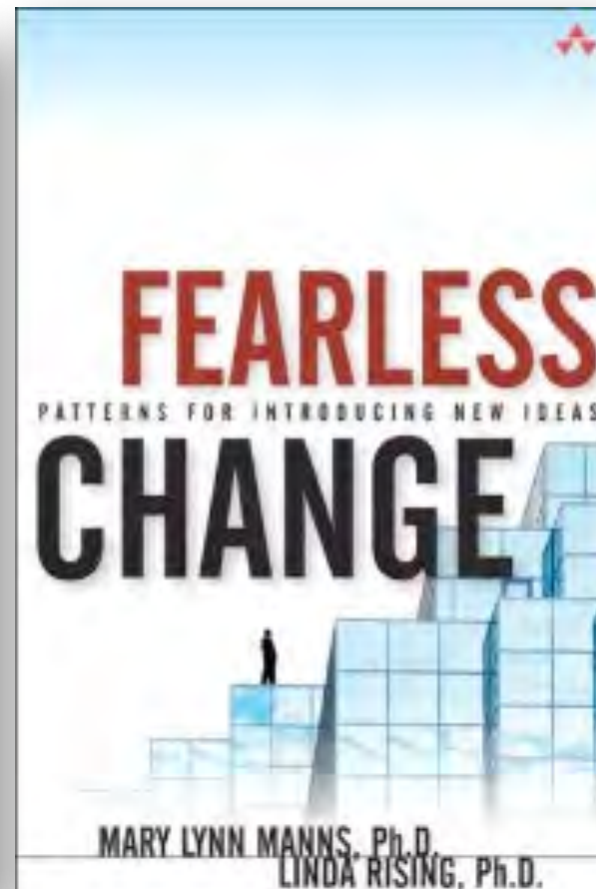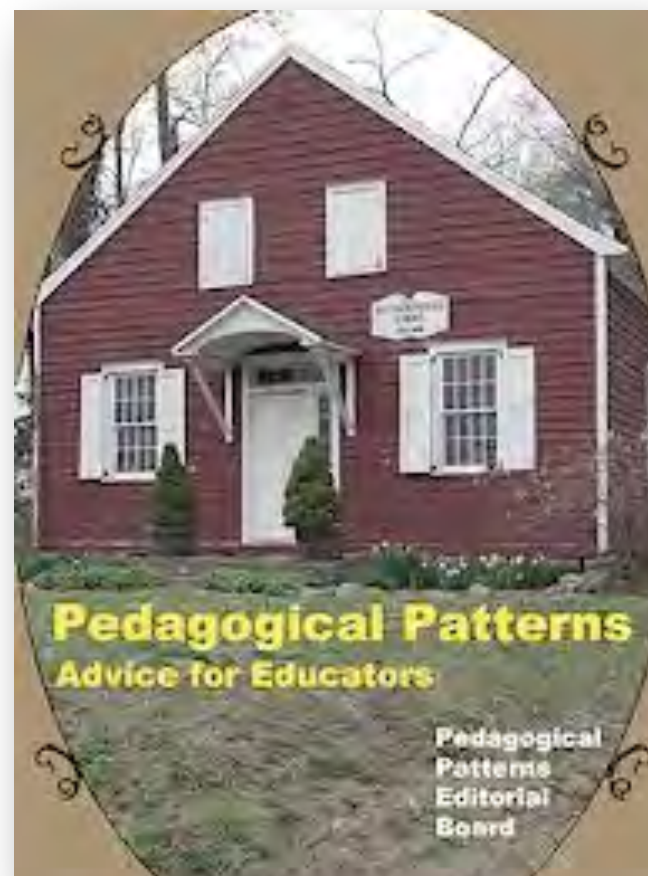
Remembering Christopher Alexander, the "Father of Pattern"

Christopher Alexander has passed away at the age of 85.

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Architecture
Christopher Alexander obituary

Architect and theorist who believed in creating human-centred buildings, drawing on new technology and ancient traditions

The Eishin high school campus, outside Tokyo, Japan, designed by Christopher Alexander in the 1980s. Photograph: Howard Davis/Center for Environmental Structure

CURRENT AFFAIRS

How To Build Beautiful Places

PUBLIC SQUARE
A CNU Journal

IN MEMORY OF
Christopher Alexander, 1936–2022

ROBERT STEUTEVILLE   MAR. 18, 2022

THE ORIGINS OF PATTERN THEORY, THE FUTURE OF THE THEORY, AND THE GENERATION OF A LIVING WORLD

Keynote Speech to the 1996 OOPSLA Convention
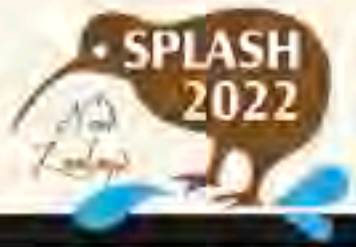*By Christopher Alexander*

"Thank you very much. This is a pretty strange situation I find myself in. I hope you sympathize with me. I'm addressing a room full of people, a whole football field full of people. I don't know hardly anything about what all of you do. So — please be nice to me."

https://ieeexplore.ieee.org/abstract/document/795104
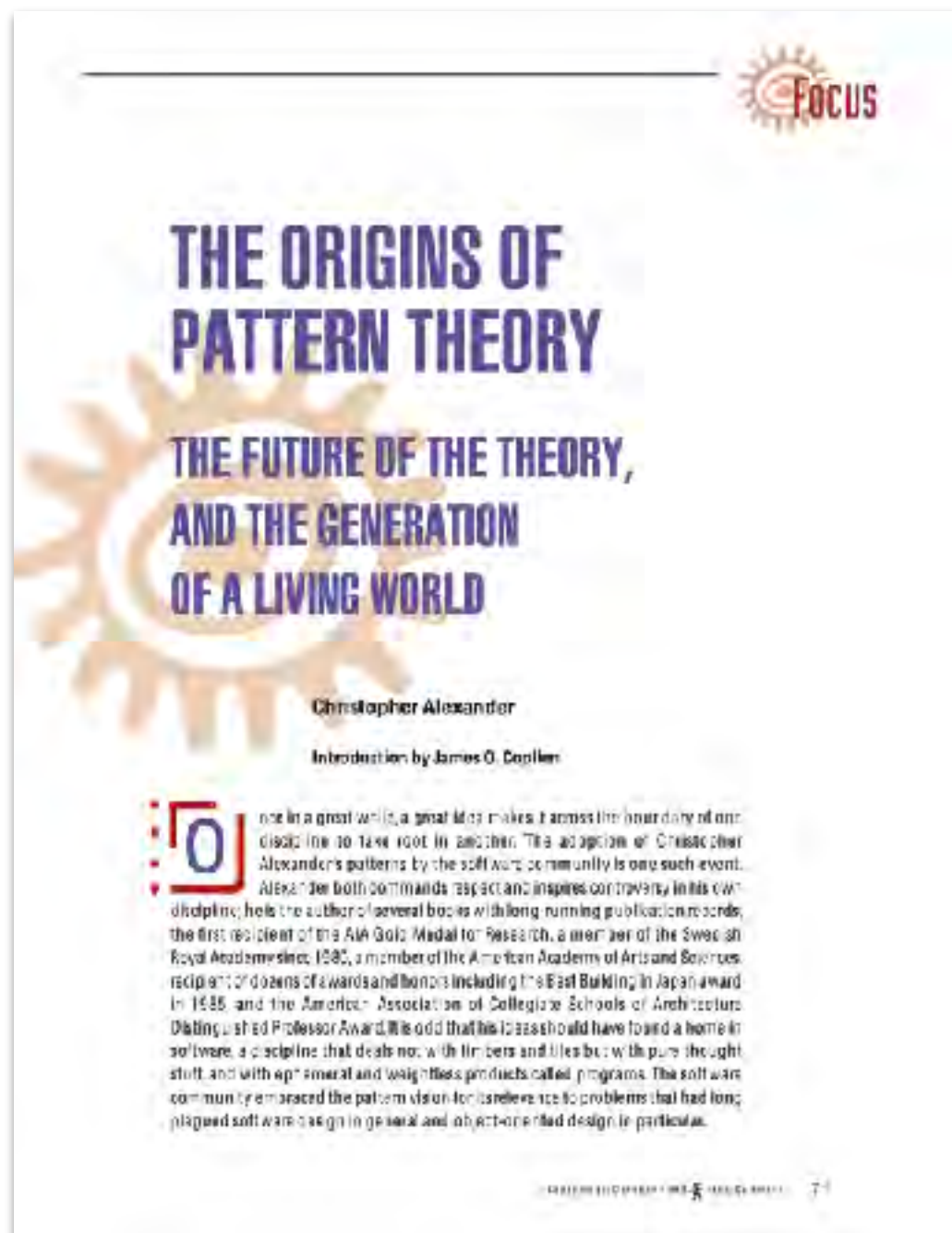
https://www.youtube.com/watch?v=98LdFA-_zfA

THE ORIGINS OF PATTERN THEORY, THE FUTURE OF THE THEORY, AND THE GENERATION OF A LIVING WORLD

Keynote Speech to the 1996 OOPSLA Convention
By Christopher Alexander

"When I faced the question of addressing you, I wondered what on earth I should talk about. And, earlier, a few months ago I faced a similar thing when I was asked to write an introduction to Richard Gabriel's book (Patterns of Software) and again the question for me was: What in the world should I write about? What is there that I could say that would be of interest?"

https://ieeexplore.ieee.org/abstract/document/795104

https://www.youtube.com/watch?v=98LdFA-_zfA

26 years later …

SPLASH 2022
Mon 5 - Sat 10 December 2022 Auckland, New Zealand

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SPLASH 2022 (series) / Keynotes /

Improving the Quality of Creative Practices with Pattern Languages

Keynote

Track SPLASH 2022 Keynotes

ℹ This program is tentative and subject to change.

When Fri 9 Dec 2022 09:00 - 10:00 at AMRF Auditorium - SPLASH Keynote Chair(s): Jeremy Singer

Abstract In a changing society, individuals, teams, and society should keep learning and growing. However, the question is how to achieve that? In this keynote, I am introducing a method based on the utilization of pattern languages. Pattern language is the described knowledge of creative practices created by studying good practices.

You may know the "design patterns" of software architecture or programs, and they are a kind of pattern language. The idea of pattern language was originally invented by Christopher Alexander for collaborative design in architecture. Then, Kent Beck and Ward Cunningham proposed using this idea in software development. For the past 15 years, my colleague and I have created many pattern languages for human actions, including education, collaboration, business, everyday life, care, and DX. Additionally, more than 100,000 people already use our pattern languages in Japan.

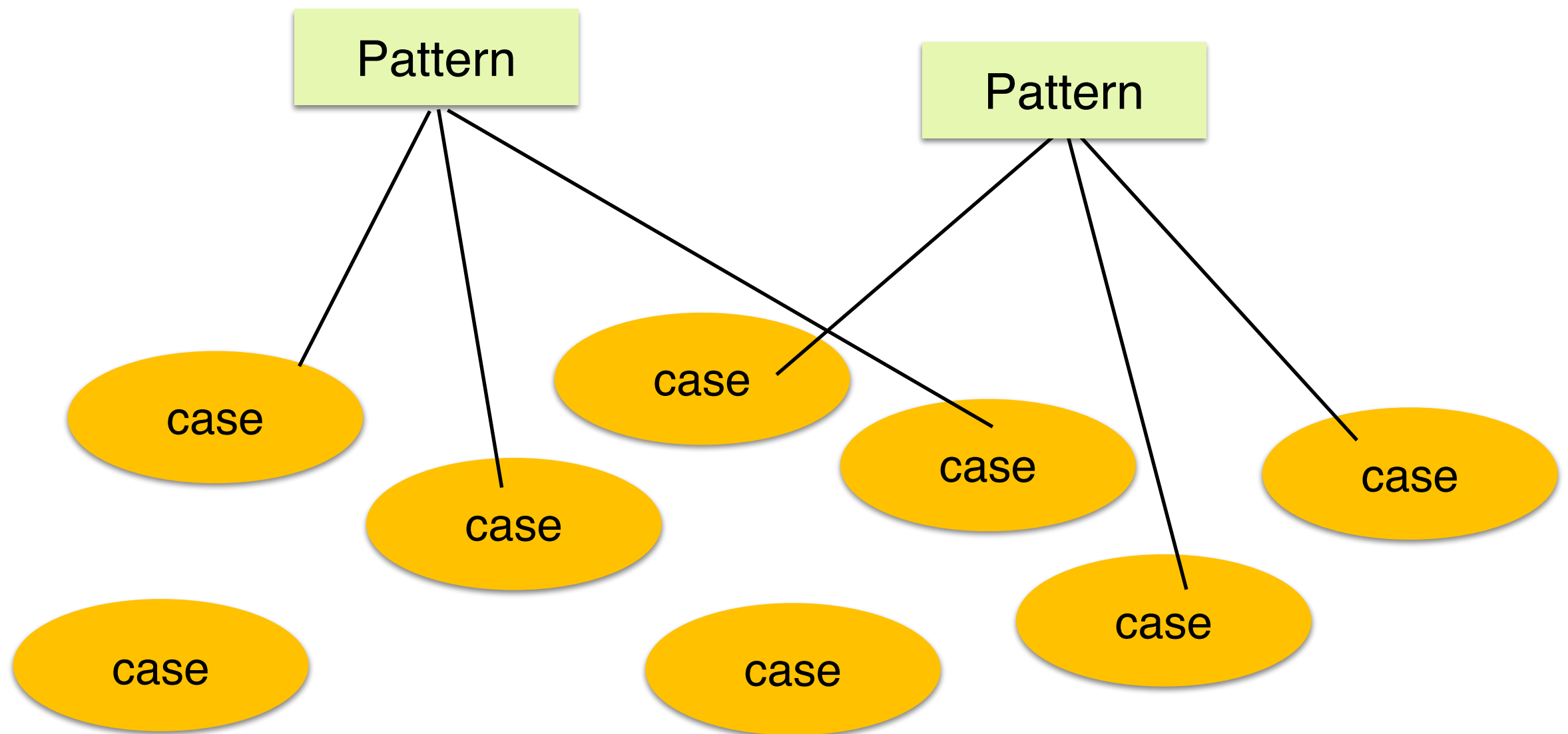**Takashi Iba** Keynote Speaker
Keio University

"please be nice to me."

Pattern Language

Pattern Language

A system of words describing generative rules for good designs or good rules of thumb (common *patterns* in various cases) in a certain domain

Pattern = generative rules for good designs or good rules of thumb

Each **pattern** describes, in a certain ***context***, what kind of ***problem*** frequently occurs, what is a good ***solution*** for the problem, and what is the ***consequence***.
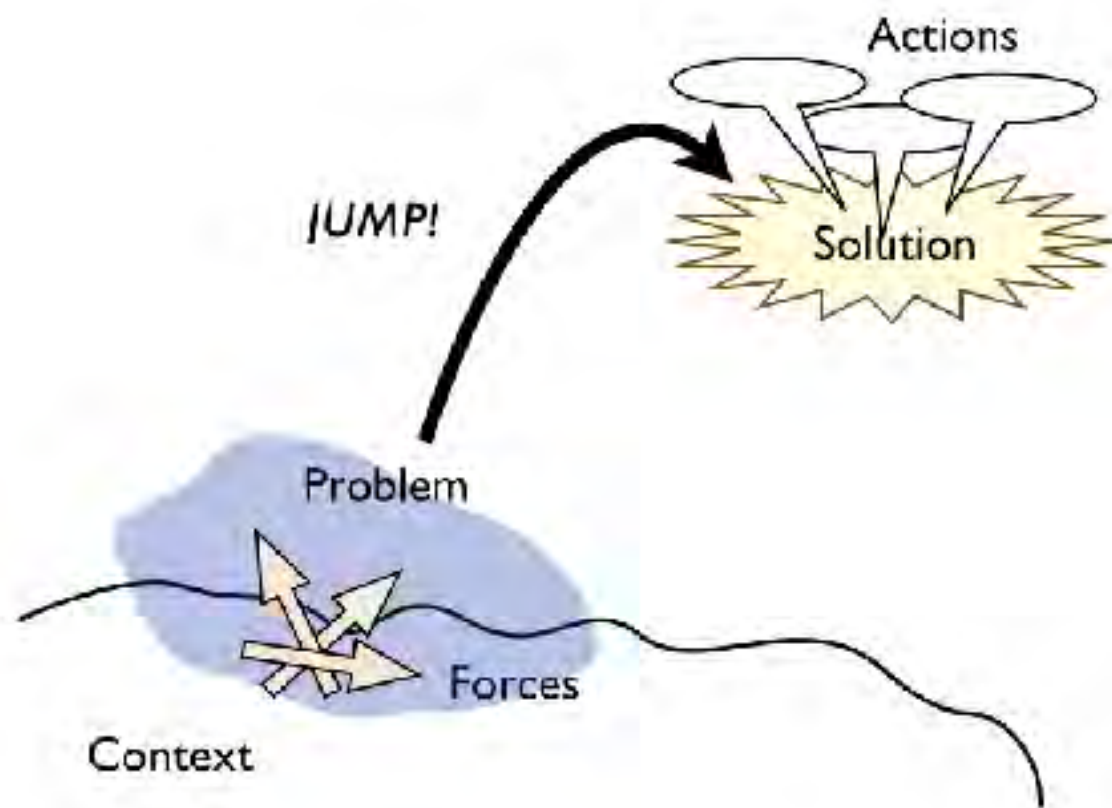
Pattern Name

Context ....

▼ In this context

Problem ....

▼ Therefore

Solution ....

▼ Consequently

Consequence ....

Pattern Language

Each pattern offers a solution to the specific aspect in the practice. Entire language of patterns supports to generate good **quality as a whole**
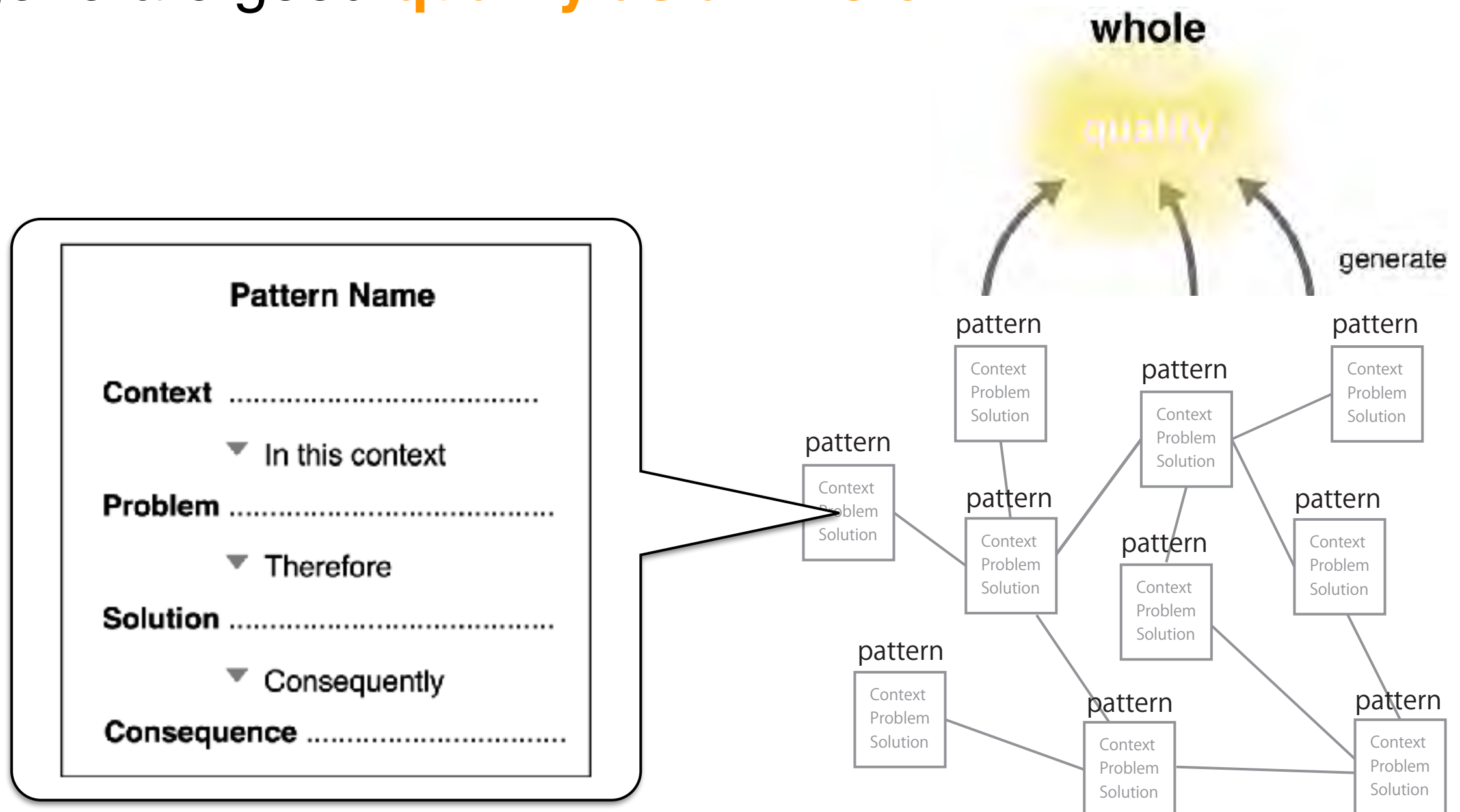
My teams

Iba Lab, Keio University SFC

https://www.facebook.com/ilabsfc

https://creativeshift.co.jp/english/

We've created **80+ pattern languages** in various domain including **2,400+ patterns** for past 20 years.

- **Education** (Iba, *et al.*, 2011; Iba & Utsunomiya, 2017)
- **Learning** (Iba, *et al.*, 2009; Iba & Iba Lab, 2014)
- **Collaboration** (Iba, *et al.*, 2013; Iba & Iba Lab, 2014)
- **Presentation** (Iba, *et al.*, 2012; Iba & Iba Lab, 2014)
- **Reading** (Iba, *et al.*, 2018)
- **Open Dialogue** (Iba *et al.*, 2017; Iba & Nagai, 2018)
- **Motivating Self-Improvement** (Burgoyne &Iba, 2017)
- **Life Transition** (Iba & Kubo, 2017)
- **Project Design** (Kubota *et al.*, 2016; Iba *et al.*, 2017)
- **School Design** (Iba *et al.*, 2015)
- **Workshop Design** (Iba, 2012; Akado *et al.*, 2015)
- **Middle Leader for Child Care** (Nozawa, *et al.*, 2018)
- ***Omotenashi* (Hospitality)** (Iba & Nakagawa, 2019)
- **Cooking** (Akado *et al.*, 2016; Yoshikawa *et al.*, 2018; Isaku & Iba, 2016)
- **Managing Everyday Life with Working and Parenting** (Ogo *et al.*, 2017)
- **Living Lively and Beautiful** (Arao *et al.*, 2012)
- **Natural Living - Ethical Lifestyle** (Kamada *et al.*, 2016)
- **Living well with Dementia** (Iba & Okada, 2015; Iba, *et al.*, 2016)
- **Social Entrepreneurship** (Shimomukai, *et al.*, 2012; Shimomukai, *et al.*, 2015)
- **Cross-Border Leadership** (Miura, *et al.*, 2016)
- **Public Policy Design** (Iba & Takenaka, 2017)
- **Surviving Earthquakes** (Furukawazono *et al.*, 2013; Furukawazono & Iba, 2015)
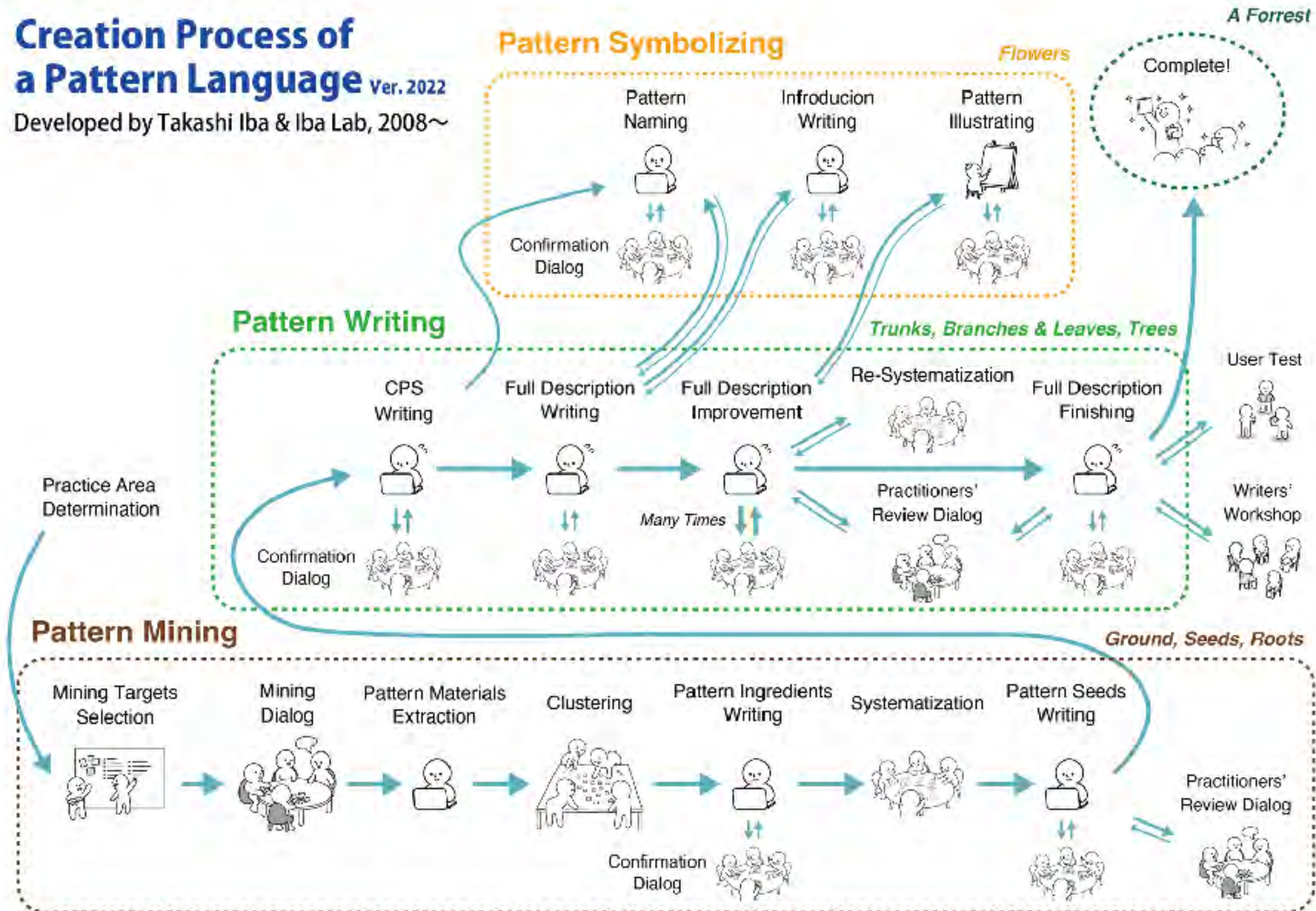- **Conservation of Ecosystem** (Kamada *et al.*, 2018)
- .....

+ about 400 meta-patterns

We've developed a process and method for creating a pattern language
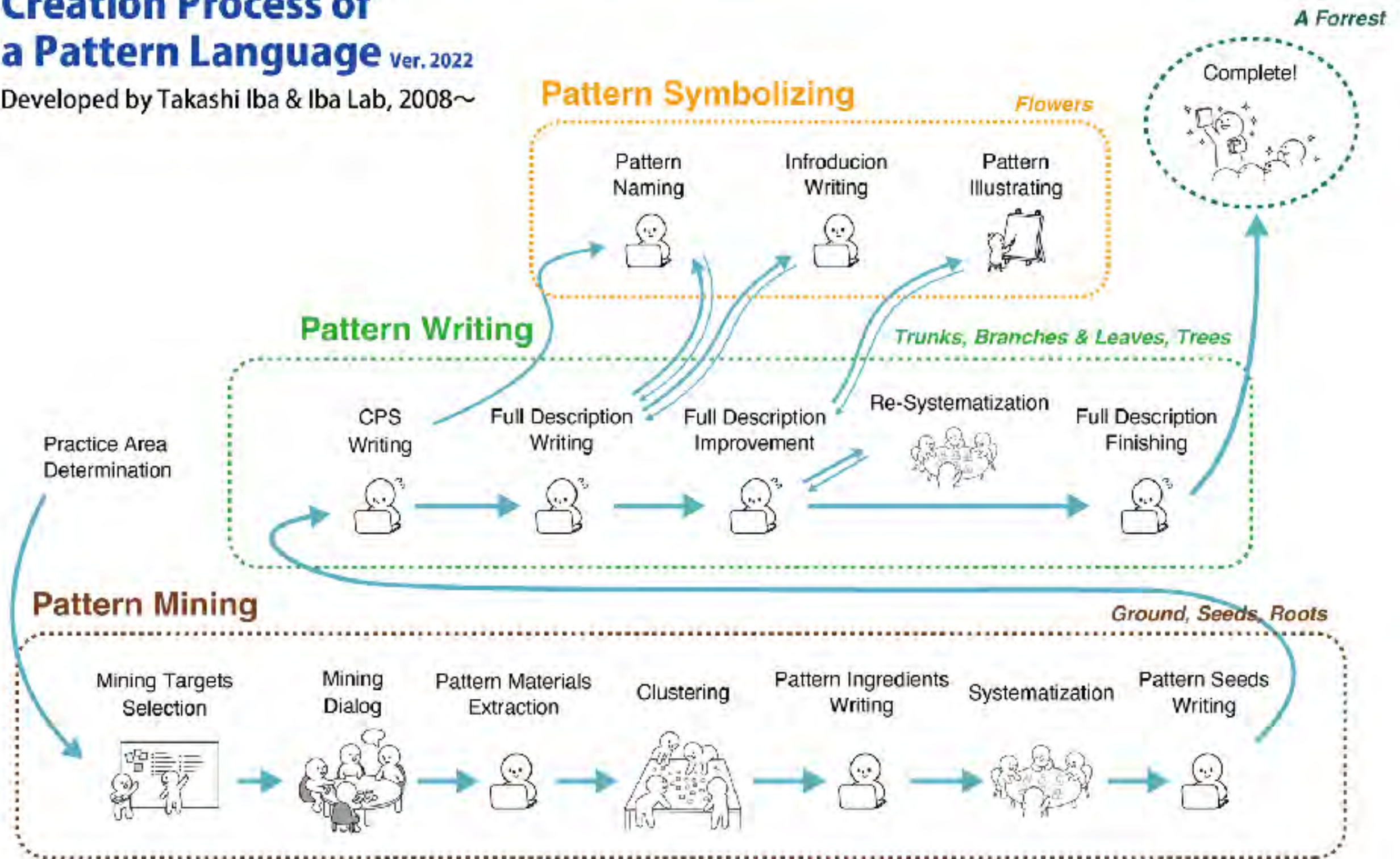

Creation Process of a Pattern Language Ver. 2022
Developed by Takashi Iba & Iba Lab, 2008~

Pattern Symbolizing — *Flowers*

A Forrest — Complete!

- Pattern Naming
- Introducion Writing
- Pattern Illustrating
- Confirmation Dialog

Pattern Writing — *Trunks, Branches & Leaves, Trees*

- Practice Area Determination
- CPS Writing
- Full Description Writing
- Full Description Improvement — *Many Times*
- Re-Systematization
- Full Description Finishing
- Confirmation Dialog
- Practitioners' Review Dialog
- User Test
- Writers' Workshop

Pattern Mining — *Ground, Seeds, Roots*

- Mining Targets Selection
- Mining Dialog
- Pattern Materials Extraction
- Clustering
- Pattern Ingredients Writing
- Systematization
- Pattern Seeds Writing
- Confirmation Dialog
- Practitioners' Review Dialog

Creation Process of a Pattern Language Ver. 2022

Developed by Takashi Iba & Iba Lab, 2008~

A Forrest

Complete!

Pattern Symbolizing

Flowers

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Practice Area Determination

CPS Writing

Full Description Writing

Full Description Improvement

Re-Systematization

Full Description Finishing

Pattern Mining

Ground, Seeds, Roots

Mining Targets Selection

Mining Dialog

Pattern Materials Extraction

Clustering

Pattern Ingredients Writing

Systematization

Pattern Seeds Writing

On Creation of Pattern Language

5 papers

○ Takashi Iba, Mami Sakamoto, and Toko Miyake, "How to Write Tacit Knowledge as a Pattern Language: Media Design for Spontaneous and Collaborative Communities," *Procedia - Social and Behavioral Sciences 26*, pp.46 54, 2011

○ Takashi Iba, "Using pattern languages as media for mining, analysing, and visualising experiences," *International Journal of Organisational Design and Engineering,* Vol.3, Nos. 3/4, 2014

○ Takashi Iba, Norihiko Kimura, Takuya Honda, Sumire Nakamura, Sakurako Kogure, and Ayaka Yoshikawa, "The Method of Agile Pattern Creation for Campus Building: The Keio-SFC Experiment," *PLoP '15: Proceedings of the 22nd Conference on Pattern Languages of Programs,* ACM, 2015

○ Takashi Iba, "Pattern Language 3.0 and Fundamental Behavioral Properties" in World Conference on Pursuit of Pattern Languages for Societal Change, 2015, published in a book: Peter Baumgartner, Tina Gruber-Muecke, Richard Sickinger (Eds.), P*ursuit of Pattern Languages for Societal Change. Designing Lively Scenarios in Various Fields*. Berlin: epubli, 2016, pp.200-233

○ Takashi Iba, Taichi Isaku, "Creating a Pattern Language for Creating Pattern Languages: 364 Patterns for Pattern Mining, Writing, and Symbolizing," *PLoP '16: Proceedings of the 23rd Conference on Pattern Languages of Programs*, ACM, 2016

On Pattern Mining

○ Takashi Iba and Taichi Isaku, "Holistic Pattern-Mining Patterns: A Pattern Language for Pattern Mining on a Holistic Approach," *Hillside Proceedings of the 19th Conference on Pattern Languages of Programs*, 2012

○ Takashi Iba and Joseph Yoder, "Mining Interview Patterns: Patterns for Effectively Obtaining Seeds of Patterns," in *10th Latin American Conference on Pattern Languages of Programs*, 2014

○ Yuma Akado, Sakurako Kogure, Alice Sasabe, Jei-Hee Hong, Keishi Saruwatari, and Takashi Iba, "Five Patterns for Designing Pattern Mining Workshops," *EuroPLoP '15: Proceedings of the 20th European Conference on Pattern Languages of Programs*, ACM, 2015

○ Alice Sasabe, Tomoki Kaneko, Kaho Takahashi, Takashi Iba, "Pattern Mining Patterns: A Search for the Seeds of Patterns," *PLoP '16: Proceedings of the 23rd Conference on Pattern Languages of Programs*, 2016

○ Takashi Iba, Ayaka Yoshikawa, Konomi Munakata, "Philosophy and methodology of clustering in pattern mining: Japanese anthropologist Jiro Kawakita's KJ method,"*PLoP '17: Proceedings of the 24th Conference on Pattern Languages of Programs*, ACM, 2017

○ Takashi Iba, Yuya Oka, Haruka Kimura, Erika Inoue, "Extracting and Writing Key Elements in Pattern Mining", *28th Conference on Pattern Languages of Programs, PLOPOURRI*, 2021

○ Takashi Iba, Takako Kanai, "Systematization of Patterns for Weaving a Pattern Language as a Whole," *28th Conference on Pattern Languages of Programs, PLOPOURRI*, 2021

On Pattern Writing

○ Takashi Iba, "A Journey on the Way to Pattern Writing: Designing the Pattern Writing Sheet," *Hillside Proceedings of the 21st Conference on Pattern Languages of Programs*, 2014

○ Yumiko Shimokawa,Misaki Yamakage,Natsuki Takahashi,Takashi Iba, "28 Important Knacks to Improve Patterns," *EuroPLoP '20: Proceedings of the European Conference on Pattern Languages of Programs*, ACM, 2020

○ Takashi Iba, "How to Write Patterns: A Practical Guide for Creating a Pattern Language on Human Actions," *28th Conference on Pattern Languages of Programs*, *PLOPOURRI*, 2021

○ Takashi Iba, Hinako Ando, "How to Make Patterns Powerful: Realizing Contrast in a Pattern of a Pattern Language," *28th Conference on Pattern Languages of Programs, PLOPOURRI*, 2021

On Pattern Symbolizing

○Kaori Harasawa, Rinko Arao, and Takashi Iba, "A pattern language for pattern illustrating," *PLoP '12: Proceedings of the 19th Conference on Pattern Languages of Programs*, ACM, 2012

○Kaori Harasawa, Natsumi Miyazaki, Rika Sakuraba, and Takashi Iba, "The Nature of Pattern Illustrating: The Theory and The Process of Pattern Illustrating," *Hillside Proceedings of the 21st Conference on Pattern Languages of Programs*, 2014

○Natsumi Miyazaki, Rika Sakuraba, Kaori Harasawa, Takashi Iba, "Pattern illustrating patterns: a pattern language for pattern illustrating," *PLoP '15: Proceedings of the 22nd Conference on Pattern Languages of Programs*, ACM, 2015

○Shiori Shibata, Sakurako Kogure, Hitomi Shimizu, Takashi Iba, "Pattern Naming Patterns: symbolizing the content and value by expressions to facilitate intuitive comprehension," *PLoP '16: Proceedings of the 23rd Conference on Pattern Languages of Programs, ACM,* 2016

○Konomi Munakata, Rio Nitta, Kotomi Nozaki, Chiaki Sano, Takashi Iba, "15 design patterns for pattern illustrating," PLoP '18: Proceedings of the 25th Conference on Pattern Languages of Programs, ACM, 2018

○Takashi Iba, Yuka Banno, Hinako Ando, "Principles of Pattern Illustration Design," *EuroPLoP'21: 26th European Conference on Pattern Languages of Programs,* ACM, 2021

○Takashi Iba with Iba Laboratory, *Pattern Illustrating Patterns: A Pattern Language for Pattern Illustrating*, CreativeShift, 2015

○Kaori Harasawa, Natsumi Miyazaki, Rika Sakuraba, and Takashi Iba, *A Tale of Pattern Illustrating*, CreativeShift, 2015

Workshop

○ Takashi Iba, "Pattern Mining Workshop: Creating a pattern language for open collaborations," *4th International Conference on Collaborative Innovation Networks (COINs2013)*, Santiago, Chile, Aug. 2013

○ Konomi Munakata,Ayaka Yoshikawa,Haruka Mori, Tomoaki Kaneko, Takashi, Iba, "Pattern Mining Workshop: Practice of Clustering with KJ Method", *Pursuit of Pattern Languages for Societal Change conference 2017 (PURPLSOC2017)*, Krems, Austria, 2017

○ Ayaka Yoshikawa, Konomi Munakata, Haruka Mori, Hitomi Shimizu, Tomoki Kaneko, Akiko Kumasaki, Taichi Isaku, Takashi Iba, "Pattern Mining Workshop: How to Find Patterns from Experiences," *Symposium on the Future of Learning*, Vienna, Austria, 2017

○ Joseph Yoder, Takashi Iba, "Pattern Mining Workshop," MiniPLoP 2017, *Programming 2017 conference*, Brussels, Belgium, 2017

○ Joseph Yoder, Takashi Iba, "Workshop for pattern mining," *6th Asian Conference on Pattern Languages of Programs (AsianPLoP 2017)*, 2017

○ Takashi Iba, Taichi Isaku, Aimi Burgoyne, "Holistic Pattern Mining Workshop", *23rd European Conference on Pattern Languages of Programs (EuroPLoP2018)*, 2018

○ Konomi Munakata, Tomoki Kaneko, Takashi Iba, "Pattern Illustrating Workshop", *24th European Conference on Pattern Languages of Programs (EuroPLoP2019)*, 2019

In Total

- Takashi Iba, Mami Sakamoto, and Toko Miyake, "How to Write Tacit Knowledge as a Pattern Language: Media Design for Spontaneous and Collaborative Communities," *Procedia - Social and Behavioral Sciences 26*, pp.46 54, 2011
- Takashi Iba, "Using pattern languages as media for mining, analysing, and visualising experiences," *International Journal of Organisational Design and Engineering,* Vol.3, Nos. 3/4, 2014
- Takashi Iba, Norihiko Kimura, Takuya Honda, Sumire Nakamura, Sakurako Kogure, and Ayaka Yoshikawa, "The Method of Agile Pattern Creation for Campus Building: The Keio-SFC Experiment," *PLoP '15: Proceedings of the 22nd Conference on Pattern Languages of Programs,* ACM, 2015
- Takashi Iba, "Pattern Language 3.0 and Fundamental Behavioral Properties" in World Conference on Pursuit of Pattern Languages for Societal Change, 2015, published in a book: Peter Baumgartner, Tina Gruber-Muecke, Richard Sickinger (Eds.), P*ursuit of Pattern Languages for Societal Change. Designing Lively Scenarios in Various Fields.* Berlin: epubli, 2016, pp.200-233
- Takashi Iba, Taichi Isaku, "Creating a Pattern Language for Creating Pattern Languages: 364 Patterns for Pattern Mining, Writing, and Symbolizing," *PLoP '16: Proceedings of the 23rd Conference on Pattern Languages of Programs*, ACM, 2016
- Takashi Iba and Taichi Isaku, "Holistic Pattern-Mining Patterns: A Pattern Language for Pattern Mining on a Holistic Approach," *Hillside Proceedings of the 19th Conference on Pattern Languages of Programs*, 2012
- Takashi Iba and Joseph Yoder, "Mining Interview Patterns: Patterns for Effectively Obtaining Seeds of Patterns," in *10th Latin American Conference on Pattern Languages of Programs*, 2014
- Yuma Akado, Sakurako Kogure, Alice Sasabe, Jei-Hee Hong, Keishi Saruwatari, and Takashi Iba, "Five Patterns for Designing Pattern Mining Workshops," *EuroPLoP '15: Proceedings of the 20th European Conference on Pattern Languages of Programs*, ACM, 2015
- Alice Sasabe, Tomoki Kaneko, Kaho Takahashi, Takashi Iba, "Pattern Mining Patterns: A Search for the Seeds of Patterns," *PLoP '16: Proceedings of the 23rd Conference on Pattern Languages of Programs*, 2016
- Takashi Iba, Ayaka Yoshikawa, ... and method... pattern mining in Japanese and ... , *Proceedings of the 24th Conference on Pattern Languages of Programs*, ACM, 2017
- Takashi Iba, Yuya Oka, Haruka Kimura, Erika Inoue, "Extracting and Writing Key Elements in Pattern Mining", *28th Conference on Pattern Languages of Programs, PLOPOURRI*, 2021
- Takashi Iba, Takako Kanai, "Systematization of Patterns for ... Pattern ... role, *28th Conference on Pattern Languages of Programs, PLOPOURRI*, 2021
- Takashi Iba, "A Journey on the Way to Pattern Writing: Design ... Pattern ... *Hillside Proceedings ... Conference on Pattern Languages of Programs*, 2014
- Yumiko Shimokawa, Misaki Yamakage, Natsuki Takahashi, Takashi Iba, "28 Important Knacks to Improve Patterns," *EuroPLoP '20: Proceedings of the European Conference on Pattern Languages of Programs*, ACM, 2020
- Takashi Iba, "How to Write Patterns: A Practical Guide for Creating a Pattern Language on Human Actions," *28th Conference on Pattern Languages of Programs, PLOPOURRI*, 2021
- Takashi Iba, Hinako Ando, "How to Make Patterns Powerful: Realizing Contrast in a Pattern of a Pattern Language," *28th Conference on Pattern Languages of Programs, PLOPOURRI*, 2021
- Kaori Harasawa, Rinko Arao, and Takashi Iba, "A pattern language for pattern illustrating," *PLoP '12: Proceedings of the 19th Conference on Pattern Languages of Programs*, ACM, 2012
- Kaori Harasawa, Natsumi Miyazaki, Rika Sakuraba, and Takashi Iba, "The Nature of Pattern Illustrating: The Theory and The Process of Pattern Illustrating," *Hillside Proceedings of the 21st Conference on Pattern Languages of Programs*, 2014
- Natsumi Miyazaki, Rika Sakuraba, Kaori ... Yoshikawa, Pattern Illustrating ... language for pattern ... , *... Conference on Pattern Languages of Programs*, ACM, 2015
- Takashi Iba with Iba Laboratory, *Pattern Illustrating Patterns: A Pattern Language for Pattern Illustrating*, CreativeShift Lab, 2015
- Kaori Harasawa, Natsumi Miyazaki, Rika Sakuraba, and Takashi Iba, *A Tale of Pattern Illustrating*, CreativeShift Lab, 2015
- Shiori Shibata, Sakurako Kogure, Hitomi Shimizu, Takashi Iba, "Pattern Naming Patterns: symbolizing the content and value by expressions to facilitate intuitive comprehension," *PLoP '16: Proceedings of the 23rd Conference on Pattern Languages of Programs, ACM,* 2016
- Konomi Munakata, Rio Nitta, Kotomi Nozaki, Chiaki Sano, Takashi Iba, "15 design patterns for pattern illustrating," PLoP '18: Proceedings of the 25th Conference on Pattern Languages of Programs, ACM, 2018
- Takashi Iba, Yuka Banno, Hinako Ando, "Principles of Pattern Illustration Design," *EuroPLoP'21: 26th European Conference on Pattern Languages of Programs,* ACM, 2021

- Takashi Iba, "Pattern Mining Workshop: Creating a pattern language for open collaborations," 4th International Conference on Collaborative Innovation Networks (COINs2013), Santiago, Chile, Aug. 2013
- Konomi Munakata, Ayaka Yoshikawa, Haruka Mori, Tomoaki Kaneko, Takashi, Iba, "Pattern Mining Workshop: Practice of Clustering with KJ Method", Pursuit of Pattern Languages for Societal Change conference 2017 (PURPLSOC2017), Krems, Austria, 2017
- Ayaka Yoshikawa, Konomi Munakata, Haruka Mori, Hitomi Shimizu, Tomoki Kaneko, Akiko Kumasaki, Taichi Isaku, Takashi Iba, "Pattern Mining Workshop: How to Find Patterns from Experiences," Symposium on the Future of Learning, Vienna, Austria, 2017
- Joseph Yoder, Takashi Iba, "Pattern Mining Workshop," MiniPLoP 2017, Programming 2017 conference, Brussels, Belgium, 2017
- Joseph Yoder, Takashi Iba, "Workshop for pattern mining," 6th Asian Conference on Pattern Languages of Programs (AsianPLoP 2017), 2017
- Takashi Iba, Taichi Isaku, Aimi Burgoyne, "Holistic Pattern Mining Workshop", 23rd European Conference on Pattern Languages of Programs (EuroPLoP2018), 2018
- Konomi Munakata, Tomoki Kaneko, Takashi Iba, "Pattern Illustrating Workshop", 24th European Conference on Pattern Languages of Programs (EuroPLoP2019), 2019

20 papers, 2 books & 7 workshops for past 10 years on creation of pattern languages

As a result …

Some journal articles was written by other researchers based on the method

○ Fumiya Akasaka, Mika Yasuoka, Momoko Nakatani, Atsunobu Kimura, Masayuki Ihara, "Patterns for Living Lab Practice: Describing Key Know-How to Promote Service Co-Creation with Users." *International Journal of Automation Technology* 14 (5), 769-778, 2020-09-05

○ Fumiya Akasaka, Momoko Nakatani, "Living Lab Pattern Cards and Workshop." *Serviceology : magazine of Society for Serviceology* 7 (1-4), 1-12, 2021-03. (In Japanese)

○ Naoko Osada, An ethnographic analysis of a community of practice that appreciates trial and error: Through the development of pattern languages that describe experiences in PBL", *The Transactions of Human Interface Society*, Vol.23, No.3, 2021, pp.287-302 (In Japanese)

As a result …

A Conference was conducted with using the method and some papers was published.
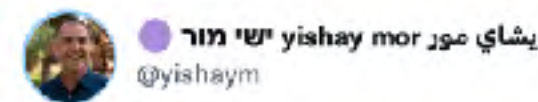
#EduPLoP pattern mining Takashi style

12:22 AM · Mar 29, 2015

○ Warburton, S.; Bergin, J.; Kohls, C.; Köppe, C. & Mor, Y., "Dialogical assessment patterns for learning from others," in *Proceedings of the 2016 VikingPLoP conference*, ACM, 2016

○ Warburton, S., Mor, Y., Kohls, C., Köppe, C., Bergin, J.. "Assessment driven course design: a pattern validation workshop," in *8th Biennial Conference of EARLI SIG 1: Assessment & Evaluation*, Munich, Germany, 2016

○ Bergin, J.; Kohls, C.; Köppe, C.; Mor, Y.; Portier, M.; Schümmer, T. & Warburton, S., "Assessment-driven Course Design Foundational Patterns," *Proceedings of the 20th European Conference on Pattern Languages of Programs*, ACM, 2015

○ Bergin, J.; Kohls, C.; Köppe, C.; Mor, Y.; Portier, M.; Schümmer, T. & Warburton, S., "Assessment-Driven Course Design-Fair Play Patterns," *Hillside Proceedings of the 22nd Conference on Pattern Languages of Programs, PLoP '15*, 2015

As a result …

A book with using the method was published!
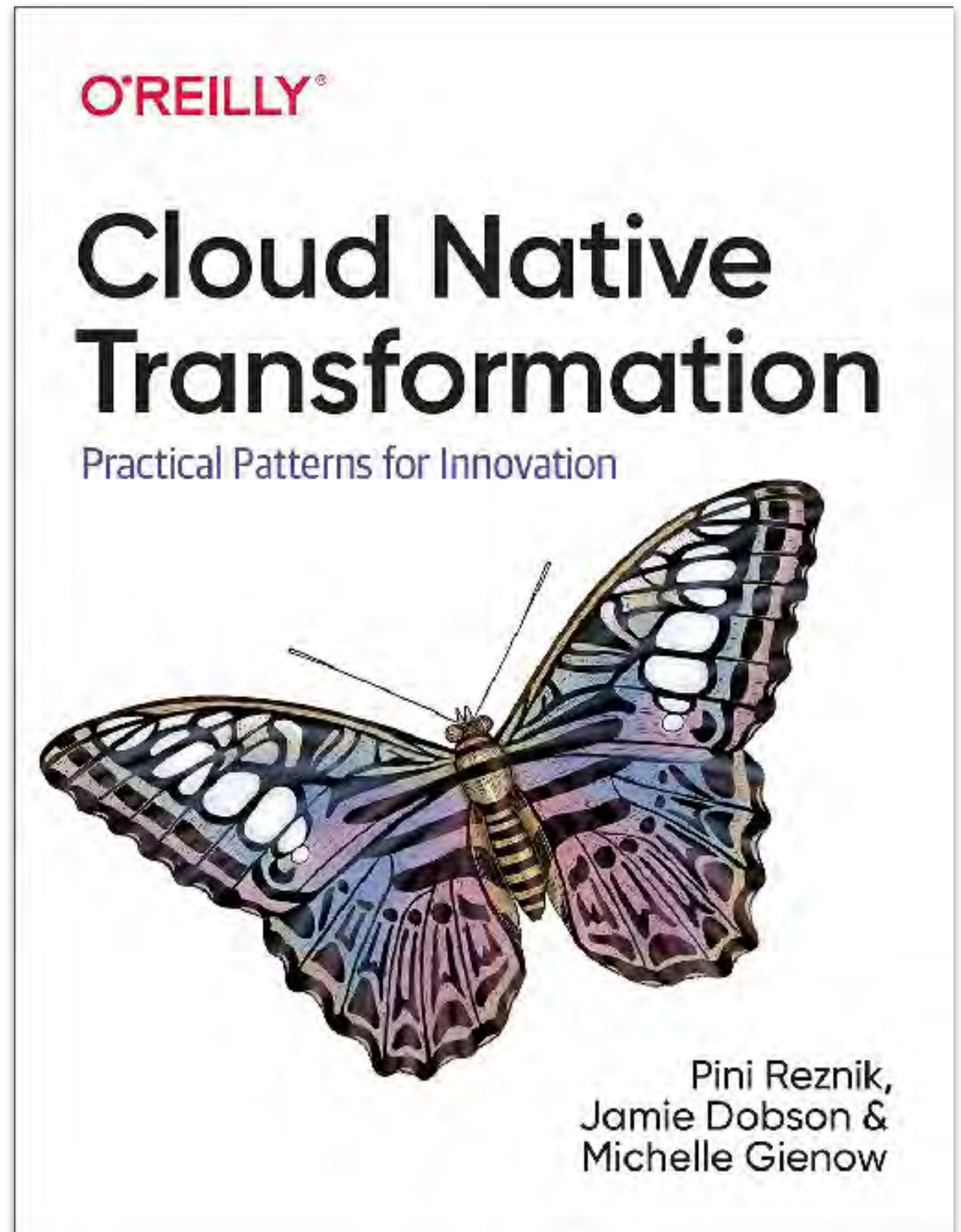
O'REILLY®

Cloud Native Transformation

Practical Patterns for Innovation

Pini Reznik,
Jamie Dobson &
Michelle Gienow

Pini Reznik, Jamie Dobson, Michelle Gienow, *Cloud Native Transformation*. O'Reilly Media, 2019
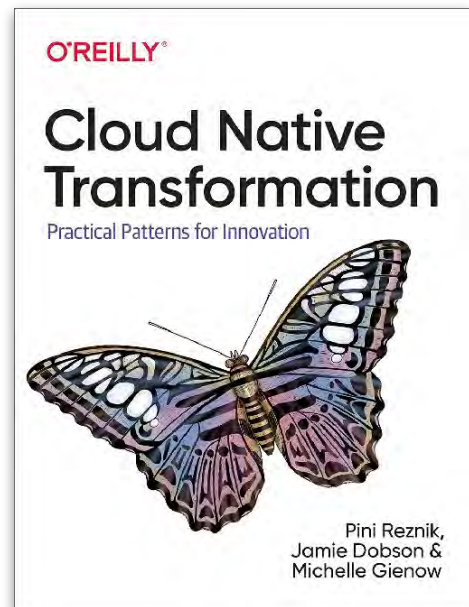
"The Hillside Group functions as the de facto hub of the global patterns community, which gathers at annual **Pattern Languages of Programs (PLoP) conferences** that Hillside sponsors. The conferences focus on pattern writing workshops and invited talks related to pattern development. **One frequent PLoP conference presenter is <u>Takashi Iba, a prominent patterns researcher</u>** at Keio University in Japan. **Iba is also a prolific patterns author** who, working with his students over the past decade, has created more than 20 pattern languages containing more than 600 patterns covering many different topics. As a part of this process <u>**Iba has developed his own process for creating patterns and a protocol for presenting them**</u>."

Pini Reznik, Jamie Dobson, Michelle Gienow, *Cloud Native Transformation*. O'Reilly Media, 2019
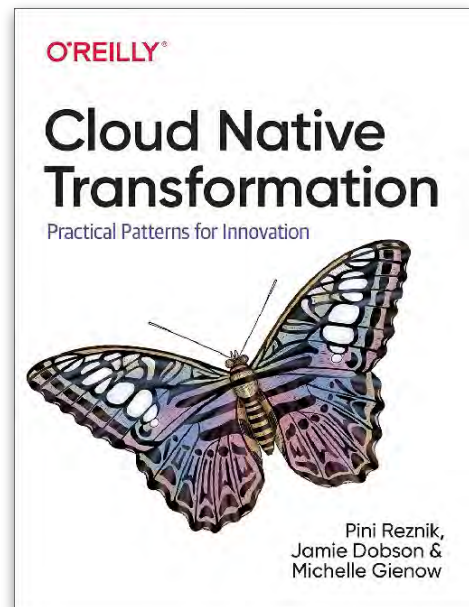
"Our Approach

The authors of this book followed largely in Iba's footsteps. Some patterns were mined during whiteboard sessions with Container Solutions engineers, others during collaborative brainstorming and epic patterns-writing sessions in London, Amsterdam, and Baltimore. Early versions of six patterns were produced as part of a paper presented at the 2018 **PLoP conference**. That paper, titled "A Cloud Native Transformation Pattern Language," inspired the creation of many more patterns and eventually grew into this book."
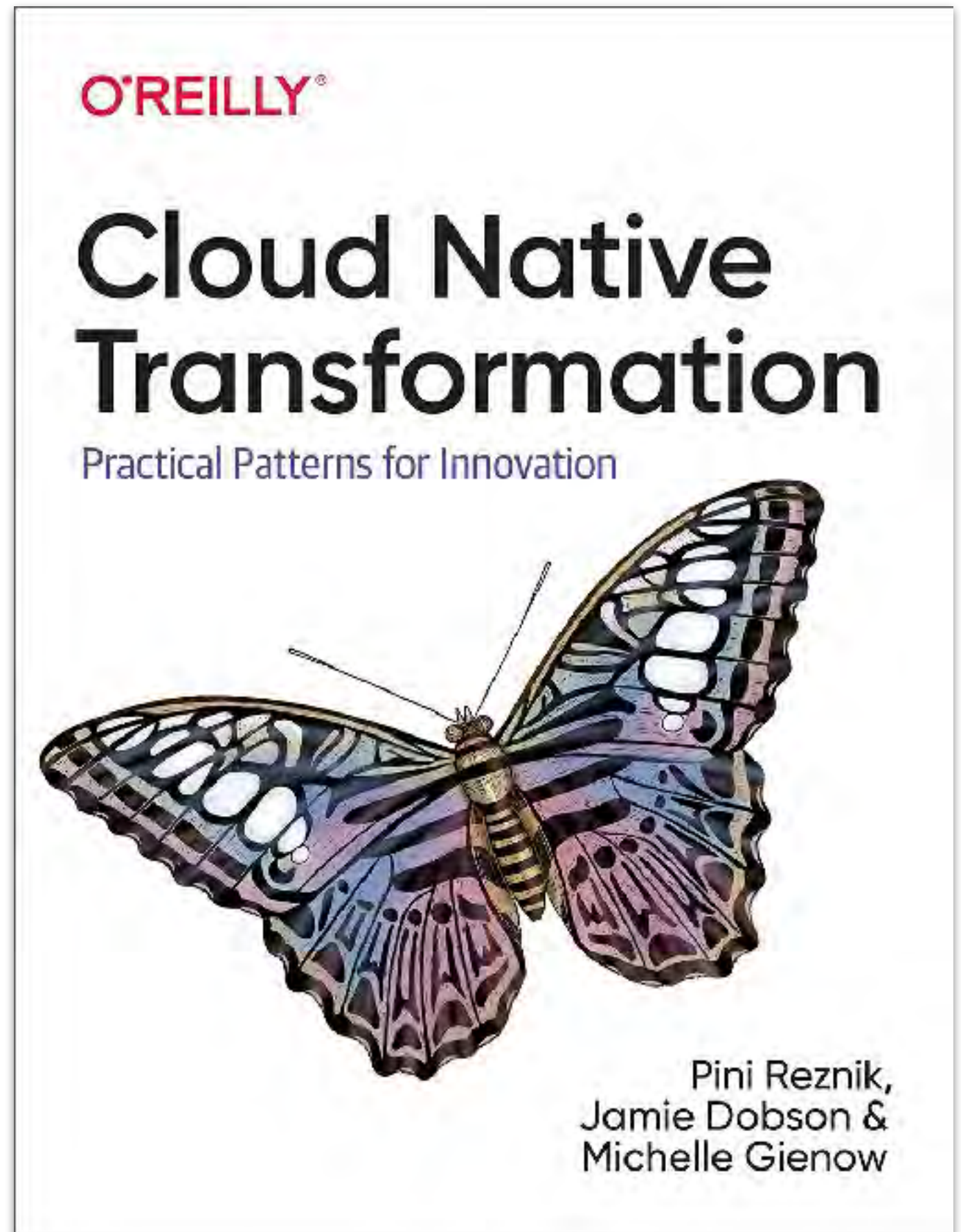
Pini Reznik, Jamie Dobson, Michelle Gienow, *Cloud Native Transformation*. O'Reilly Media, 2019

As a result …

A book with using the method was published!

O'REILLY®

Cloud Native Transformation

Practical Patterns for Innovation

Pini Reznik,
Jamie Dobson &
Michelle Gienow

Pini Reznik, Jamie Dobson, Michelle Gienow, *Cloud Native Transformation*. O'Reilly Media, 2019

Some other books mention the method.

Chris Barney, *Pattern Language for Game Design,* CRC Press, 2020

"The ideas of patterns and Pattern Language have come more recently to **the field of social and behavioral science**, with active research and development beginning in the early 2000s. This field has stayed closer to Alexander's original ideas than computer science did, the work mainly being a direct implementation of pattern theory to areas such as organizational design, pedagogy, and creative learning."

Chris Barney, *Pattern Language for Game Design,* CRC Press, 2020

"The most exciting outcome came from **a group working on a Pattern Language for creative learning**. While they had the goal of producing a Pattern Language, they also documented their process. **They published a paper describing their process and how to apply it more generally for creating other languages (Iba et al. 2011).** I discovered this work well after developing the methods used here. However, the rigor with which they tested their process helped confirm my observations."

Chris Barney, *Pattern Language for Game Design,* CRC Press, 2020

Some other books mention the method.

Creation Process of a Pattern Language Ver. 2022

Developed by Takashi Iba & Iba Lab, 2008~

A Forrest

Complete!

Pattern Symbolizing

Flowers

Pattern Naming

Introducion Writing

Pattern Illustrating

Pattern Writing

Trunks, Branches & Leaves, Trees

Practice Area Determination

CPS Writing

Full Description Writing

Full Description Improvement

Re-Systematization

Full Description Finishing

Pattern Mining

Ground, Seeds, Roots

Mining Targets Selection

Mining Dialog

Pattern Materials Extraction

Clustering

Pattern Ingredients Writing

Systematization

Pattern Seeds Writing

Are you now interested in what I'll talk today?

Invitation to the world of pattern language

- **showing what kind of pattern languages have been created in the area of human action** (activity design) including education, creative works, welfare, and everyday life,

- introducing our method of how to create a pattern language from narrative of practitioners.

Pattern Language

A system of words describing generative rules for good designs or good rules of thumb (common *patterns* in various cases) in a certain domain

Presentation Patterns
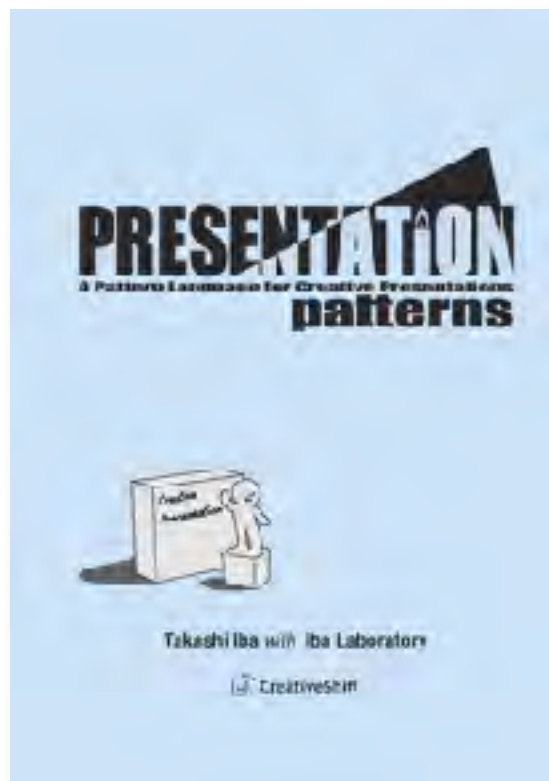
Collaboration Patterns

Learning Patterns

34 patterns for creative presentation
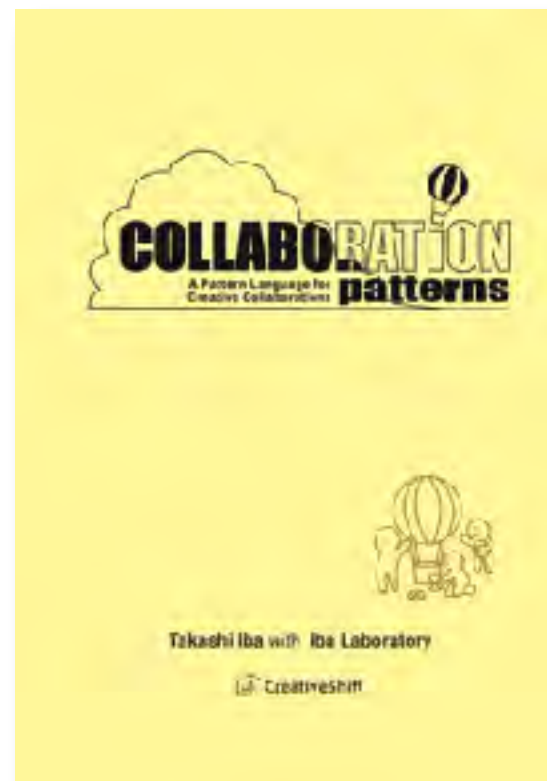
34 patterns for creative collaboration
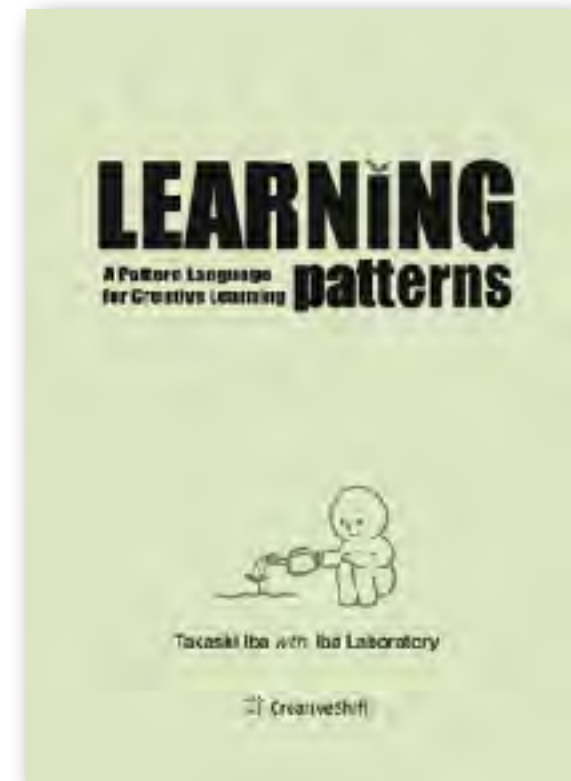
40 patterns for creative learning

34 patterns for designing creative presentations

Creative Presentation · Main Message · Touching Gift · Cherry on Top · Mind Bridge · Reality Sharing · Construction of Confidence · Presentership · Best Effort
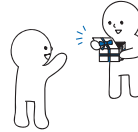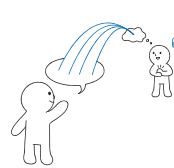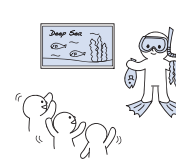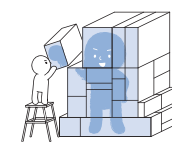
Image of Success · Storytelling · Exploration of Words · Participation Driver · Quality in Details · Expression Coordinator · Personally for You · Invitation to the World · Improvised Presentation
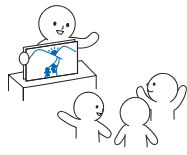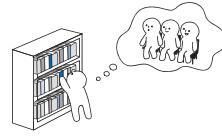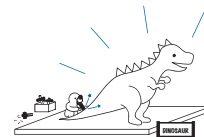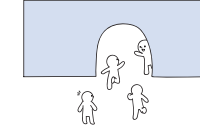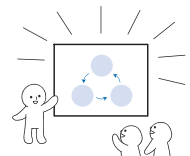
Visual Power · Dramatic Modulation · Unexpected Evolution · Discomfort Removing · Significant Void · Activation Switch · Reflecting Forwards · Unique Presenter · Aesthetics of Presenting
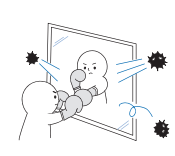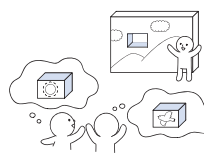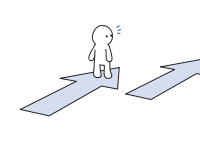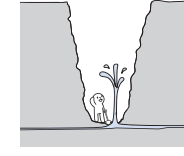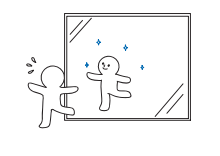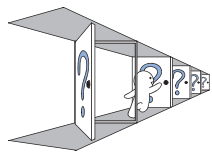
Doors of Mystery · Beautiful Clarity · Perfect Portion · Take-Home Gift · Stage Building · Reminders of Success · Be Authentic!
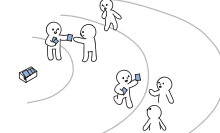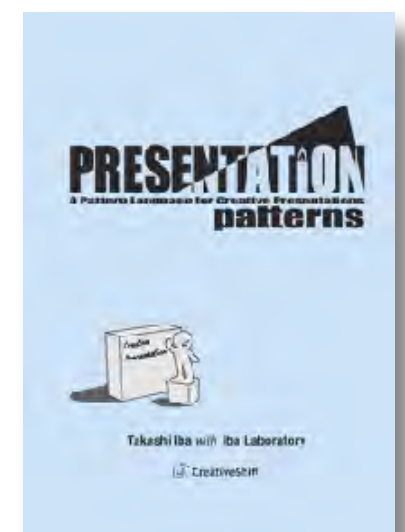
Takashi Iba with Iba Laboratory, *Presentation Patterns:*
A Pattern Language for Creative Presentations,
CreativeShift, 2014

Takashi Iba with Iba Laboratory,
*Presentation Patterns: A Pattern Language
for Creative Presentations*,
CreativeShift, 2014

PRESENTATION
A Pattern Language for Creative Presentations
patterns

Takashi Iba *with* **Iba Laboratory**

CreativeShift
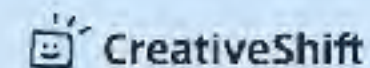
Main Message

What is the most important thing you want to tell your audience?

You are designing a presentation, and thinking of what to tell your audience.

▼ In this context

You have too many things you want to say.Information is first understood when it relates to preexisting knowledge. It takes a lot of time and effort to organize a presentation. If you can't organize the information, neither will your audience. What you want to say to your audience doesn't necessarily correspond with what you want them to understand.

▼ Therefore

Extract the most important message, and create your presentation around that idea. Use this as a measure to prioritize the multiple messages you may have. Once you have chosen your main message, start to build your presentation in the way it can best convey that message.

▼ Consequently

Your audience can easily understand your most important message. Further, having a clear message in your presentation allows for easier Storytelling (4).

Pattern Name

Main Message

Introduction

What is the most important thing you want to tell your audience?

Pattern Illustration
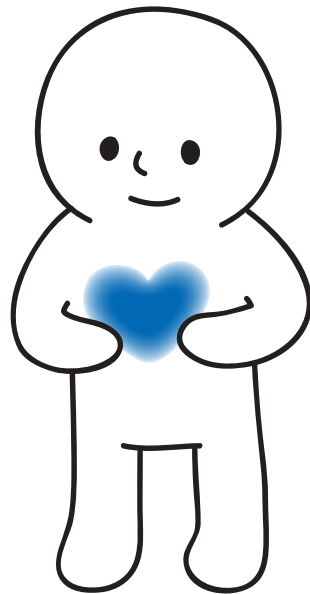
Context

You are designing a presentation, and thinking of what to tell your audience.

▼ In this context

Problem

You have too many things you want to say. Information is first understood when it relates to preexisting knowledge. It takes a lot of time and effort to organize a presentation. If you can't organize the information, neither will your audience. What you want to say to your audience doesn't necessarily correspond with what you want them to understand.

Forces

▼ Therefore

Solution

Extract the most important message, and create your presentation around that idea. Use this as a measure to prioritize the multiple messages you may have. Once you have chosen your main message, start to build your presentation in the way it can best convey that message.

Actions

▼ Consequently

Consequence

Your audience can easily understand your most important message. Further, having a clear message in your presentation allows for easier Storytelling (4).

Participation Driver

Get them involved.
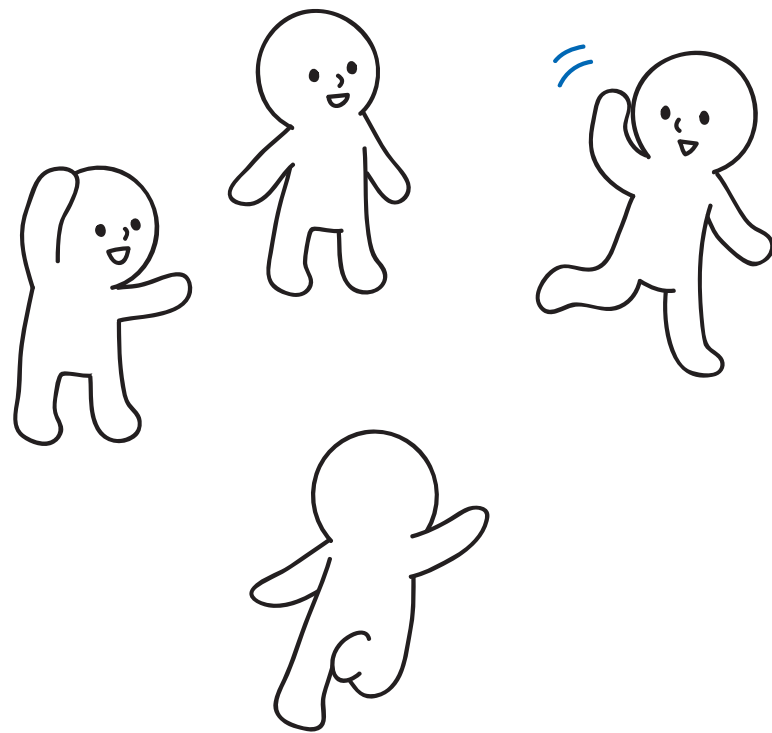
Context

You are making your presentation into *A Touching Gift (2)* that gives your audience a memorable experience.

▼ In this context

Problem

Your audience tends be passive and just listens to you. Your audience becomes bored and their enthusiasm to participate diminishes with a continuous one-way speech.

▼ Therefore

Solution

Develop an opportunity for your audience to participate in your presentation. Create an environment that encourages your audience to get involved by getting rid of any obstacles that may cause any hesitation. For example, be creative in the layout of the stage, or play music in the background. By creating these opportunities, you develop a presentation that you and your audience create together.

▼ Consequently

Consequence

Your audience is engaged and therefore enjoys the presentation. Also, creating a presentation with you becomes a memorable experience for your audience and leaves a strong lasting impression. In addition, you too may make new discoveries from the reaction of your audience.

Pattern Name

Take-Home Gift

A goody-bag full of ideas.
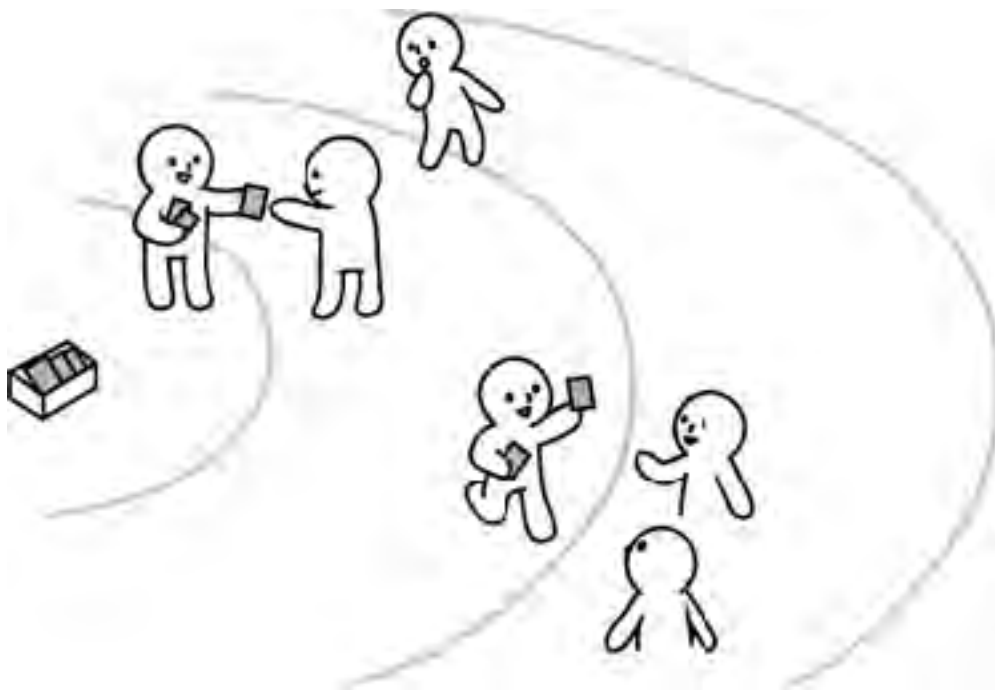
Context

You want your audience to take an active response to your *Touching Gift (2)*.

▼ In this context

Problem

Your ideas struggle to spread even after the presentation. It's difficult for your audience to remember and spread information they heard once. There is a limit to how much can be said in a single speech.

▼ Therefore

Solution

Give a gift to your audience, which reminds them of the details of your presentation. The gift may be a brochure or a card that recalls the details of your presentation. It should be attractive, so your audience would wants to take it home and share your ideas with someone not at the presentation.

▼ Consequently

Consequence

The gift would remind your audience about your presentation. It could also be used to easily spread your ideas to people who were not at the presentation. The process of designing/making your Take-Home Gift, can remind you of the Main Message (1) in your presentation.

Presentation Pattern Cards

Presentation Pattern Cards

Front

Pattern Name
Introduction
Pattern Illustration
Solution

Main Message

What is the most important thing you want to tell your audience?

Extract the most important message, and create your presentation around that idea.

Back

Context
Problem
Number & Category
Name of Pattern Language

You are designing a presentation, and thinking of what to tell your audience

▼ In this context

You have too many things you want to say

▼ Therefore

Presentation Patterns   No.1 Core

Dialogue workshop to share experiences of
presentation with using the Presentation Patterns
in a class for high school students

You can learn a lot from your peers with using a Pattern Language

Peer Learning
with Pattern Languages

Using patterns for learning from others,
not only from the patterns themselves

A workshop for high school teachers

NHK Educational Channel, Japan
"Super-Presentation" (Apr. - Oct., 2012)

Collaboration Patterns

Takashi Iba with Iba Laboratory, *Collaboration Patterns: A Pattern Language for Creative Collaboration,* CreativeShift, 2014

https://www.amazon.com/dp/1312447168

https://www.amazon.co.uk/dp/1312447168

https://www.amazon.de/dp/1312447168

http://www.lulu.com/shop/product-23896204.html
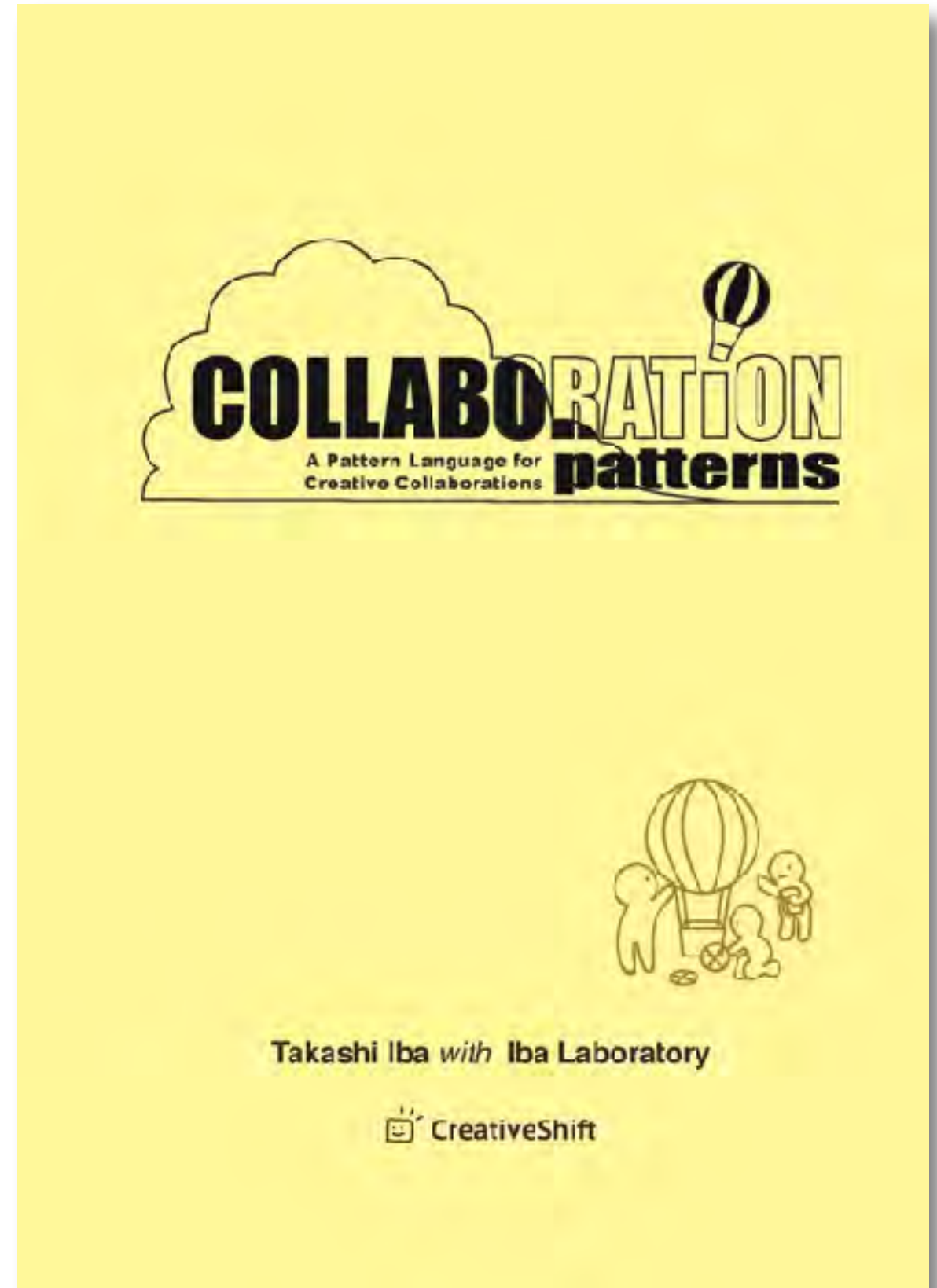
Sharing the stories of experience of collaboration with the Collaboration Patterns

Using the Collaboration Patterns
In Junior High School, Japan

Collaboration Patterns in a school training for middle and high school teachers

Reflecting and improving research project with the Collaboration Patterns

Words of Thanks

Conveying your feelings of thankfulness

Consider the environment that you ...d show thankfulness to the
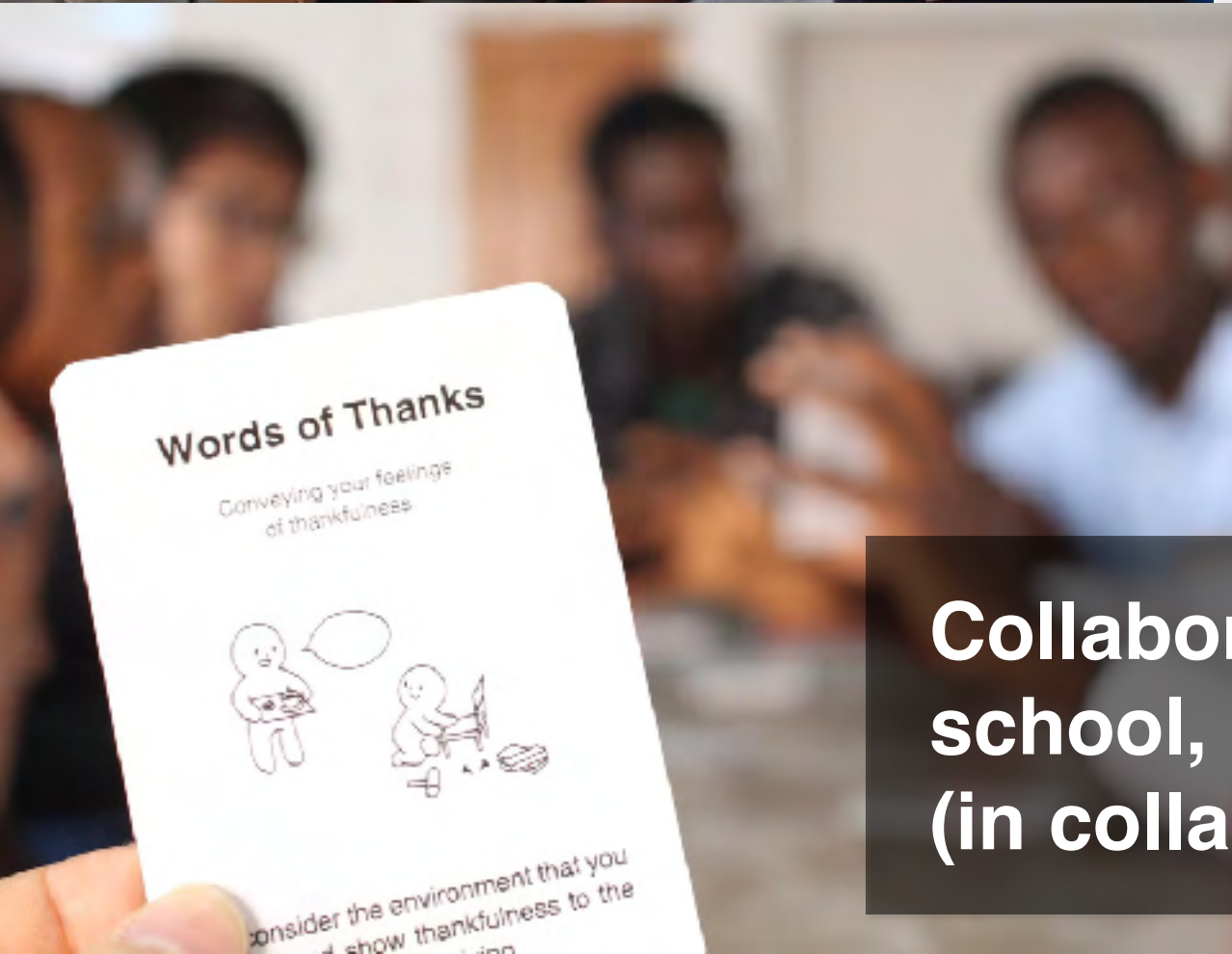
Collaboration Patterns Workshop at a school, Democratic Republic of the Congo (in collaboration with Yoko Hasebe Lab)

Chatting with Pattern Cards at a Bar after a Practitioners' Conference in Lisbon, Portugal

Let's try!

Dialogue Workshop with Patterns

Feeling of Togetherness

The feeling of creating the project together as a team.
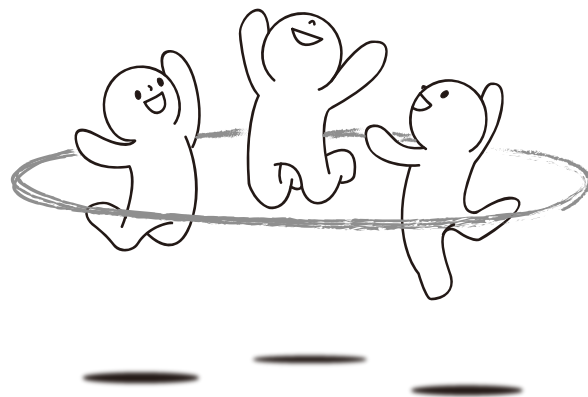
Besides the individual tasks, organize opportunities for the team to share common experiences working on the project.

Chaotic Path to Breakthrough

A new path awaits beyond the struggle of not knowing what to do.
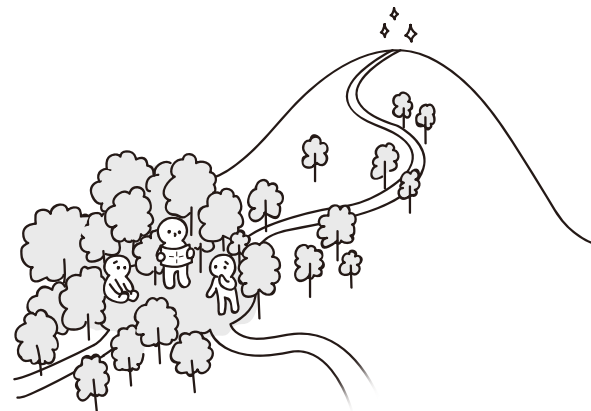
Recapture the current situation as a chance to innovate new ways; stay where you are and thoroughly think through the situation.

Polishing Senses

Appreciate rich and qualitative work.
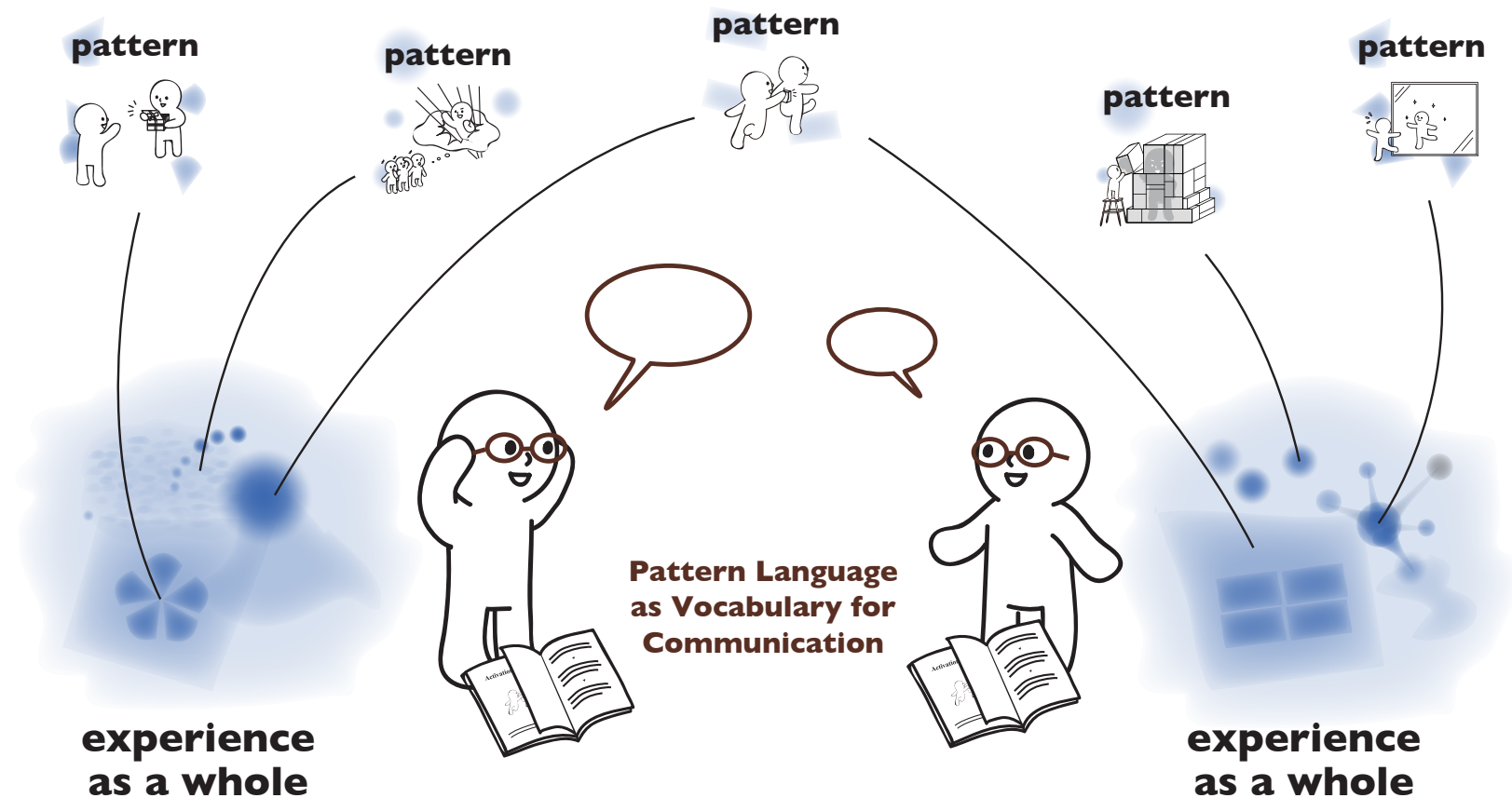
Obtain a better sense of quality by enjoying sensible work completed by others.

Please share an episode of your experience related to one of the patterns above with people nearby

You can learn a lot from your peers with using a Pattern Language

Peer Learning
with Pattern Languages

pattern

pattern

pattern

pattern

pattern

Pattern Language
as Vocabulary for
Communication

experience
as a whole

experience
as a whole

Using patterns for learning from others,
not only from the patterns themselves

Learning Patterns

Takashi Iba with Iba Laboratory, *Learning Patterns: A Pattern Language for Creative Learning,* CreativeShift, 2014

40 patterns for designing creative learning
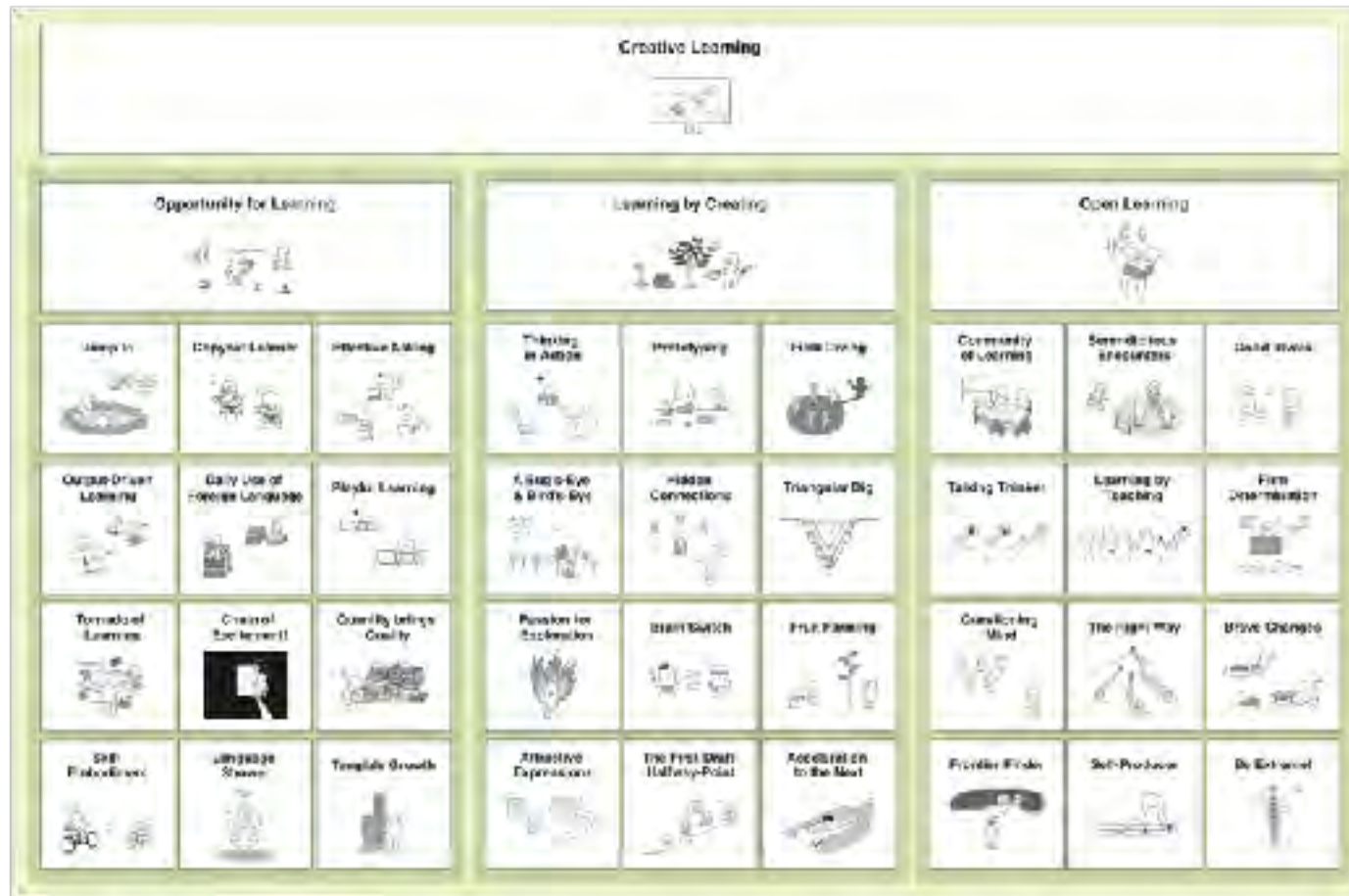
T. Iba, T. Miyake, M. Naruse, N. Yotsumoto, "Learning Patterns: A Pattern Language for Active Learners", *16th Conference on Pattern Languages of Programs (**PLoP2009**)*, 2009

Takashi Iba and Toko Miyake, "Learning Patterns: A Pattern Language for Creative Learning II," *Proceedings of the 1st Asian Conference on Pattern Languages of Programs (**AsianPLoP2010**)*, 2010

Takashi Iba and Mami Sakamoto, "Learning Patterns III: A Pattern Language for Creative Learning," *Proceedings of the 18th Conference on Pattern Languages of Programs (**PLoP2011**)*, 2011

LEARNING patterns
A Pattern Language for Creative Learning

Takashi Iba *with* Iba Laboratory

CreativeShift
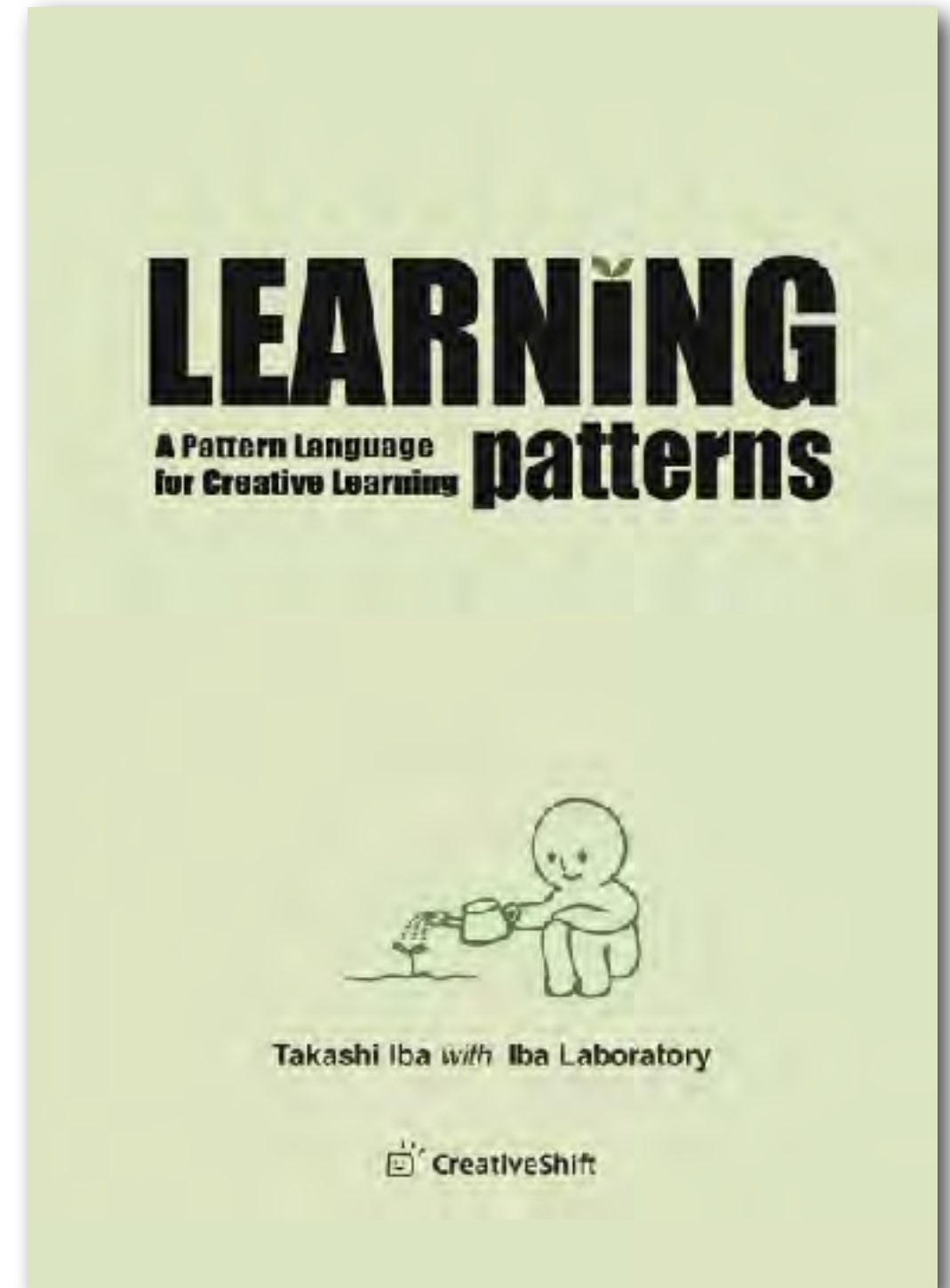
**Dialog Workshop
with the Learning Patterns**
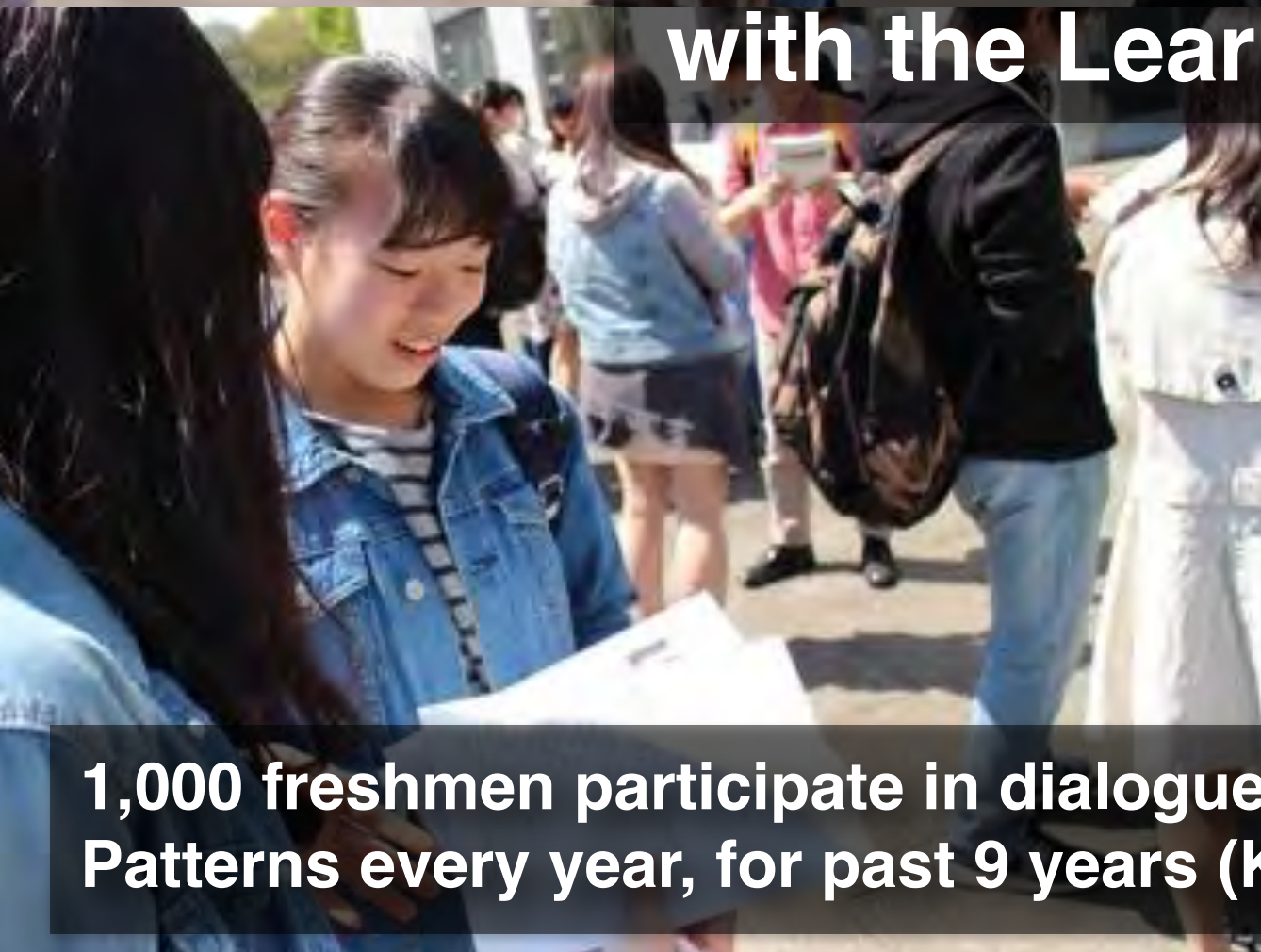
1,000 freshmen participate in dialogue workshops with using the Learning Patterns every year, for past 9 years (Keio University SFC)

Preparation for Dialogue Workshop

Circle all patterns that
you have experienced.

* Consider "*learning*" in a
broad sense, including skill
development of music,
sports, hobby, social
activities, and so on.

Also, put a start mark on just
5 patterns that you want to
gain in the near future.

Circle all patterns that you have experienced.
Also, put a star mark on just 5 patterns that you want to gain in the near future.
* Consider "learning" in a broad sense, including skill development of music, sports, hobby, social activities, and so on.

Name Yukichi Fukuzawa

0   Creative Learning

1   Opportunity for Learning
2   Learning by Creating
3   Open Learning

4   Jump In
5   Copycat Learner
6   Effective Asking
7   Output-Driven Learning
8   Daily Use of Foreign Language
9   Playful Learning
10 Tornado of Learning
11 Chain of Excitement
12 Quantity brings Quality
13 Skill Embodiment
14 Language Shower
15 Tangible Growth

16 Thinking in Action
17 Prototyping
18 Field Diving

19 A Bug's-Eye & Bird's-Eye View
20 Hidden Connections
21 Triangular Dig
22 Passion for Exploration
23 Brain Switch
24 Fruit Farming
25 Attractive Expressions
26 The First-Draft-Halfway-Point
27 Acceleration to the Next

28 Community of Learning
29 Serendipitous Encounters
30 Good Rivals
31 Talking Thinker
32 Leaning by Teaching
33 Firm Determinations
34 Questioning Mind
35 The Right Way
36 Brave Changes
37 Frontier Finder
38 Self-Producer
39 Be Extreme!

For Workshop

Look for a person who has experienced the learning patterns you want to gain. Listen to their experience of the learning.

Do you think it was important for you to listen to the learning experiences of others, in order to help you think about your own way of learning?

0.6%

3.8%

35.1%

60.6%
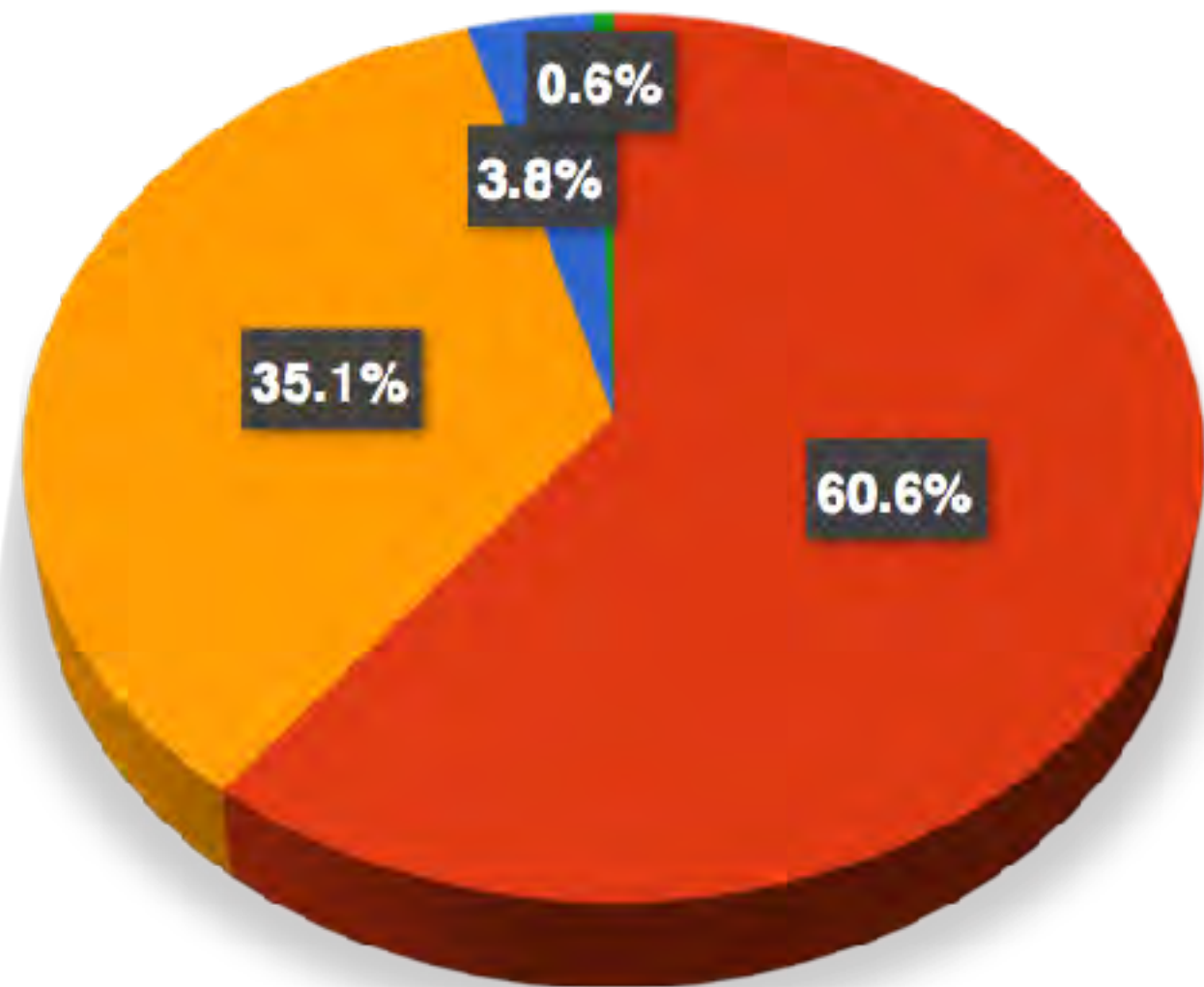
Strong agree + Agree = 95.7%

(N = 710)

■ Strongly agree
■ Agree
■ Disagree
■ Strongly disagree

All in all, was it enjoyable for you to read the Learning Patterns and to have the dialogue with others?

0.7%

2.8%

37.3%

59.2%
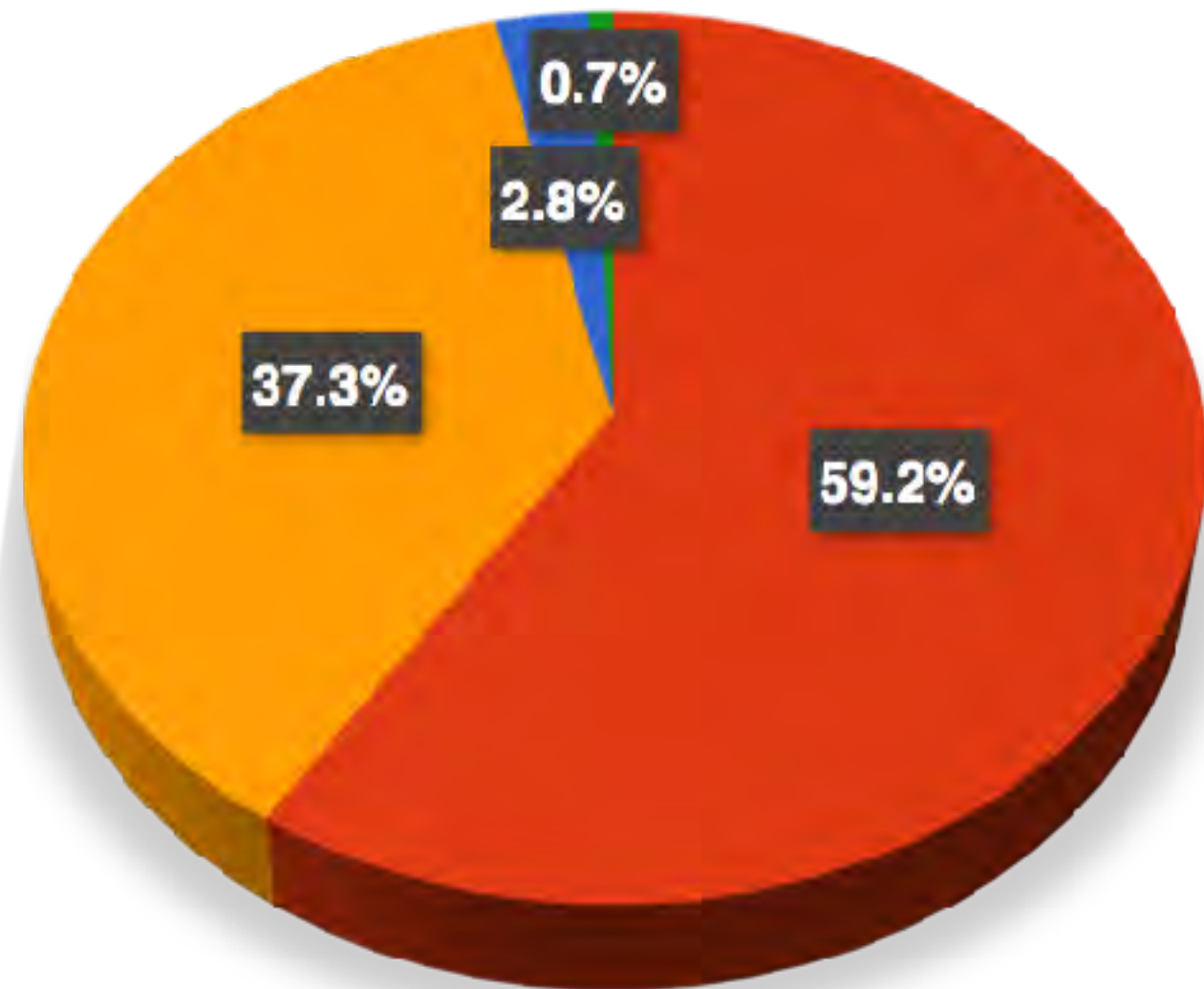
Strong agree + Agree = 96.5%

(N = 710)

- ■ Strongly agree
- ■ Agree
- ■ Disagree
- ■ Strongly disagree

Takashi Iba, "Peer Learning via Dialogue with a Pattern Language", in F. Grippa, *et al.* (eds), *Collaborative Innovation Networks: Building Adaptive and Resilient Organizations*, Springer International Publishing, 2018, pp.197-209, https://link.springer.com/chapter/10.1007/978-3-319-74295-3_16

- It was a surprise to find out so many people around me had ideas that I never thought of before. Talking to people who would listen closely to my stories and answer my questions generously made the workshop **very inspiring**.
- By having other people explain with their stories the patterns that I want to adopt, the **rather abstract image of the patterns became more concrete** and started to **seem feasible**.
- I found out through the workshop that people could have **different types of stories** even though they are based on **the same pattern**.
- I was thinking about the amount of experience everyone has. The stories from my peers made me **realize how much more there still is for me to experience and learn**.
- This workshop was a **good opportunity** for me **to organize the experiences** I have had up until now. I was able to figure out things that I still need to work on and things that I want to start working on.
- This made me **realize how each one of us is full of unique experiences**. This also made me realize how valuable my past actions are, and it helped them **become a source of confidence for me**.
- Through the workshop, I was **able to find a solution to a problem** I had been worrying about since I started college.
- Speaking to someone new about a story of my experience was something I have never done before and was **fun**.
- I actually made several **new friends**.

Takashi Iba, "Pattern Languages as Media for Creative Dialogue: Functional Analysis of Dialogue Workshops," in P. Baumgartner, R. Sickinger (eds), *PURPLSOC: The Workshop 2014*, 2015. pp.236-255

Learning Patterns in German!

Learning Patterns: Eine Mustersprache für kreatives Lernen

Takashi Iba with Iba Laboratory, *Learning Patterns: Eine Mustersprache für kreatives Lernen*, translated by Reinhard Bauer, Petra Szucsich & Martin Sankofi, CreativeShift, 2018

Pädagogische
Hochschule Wien
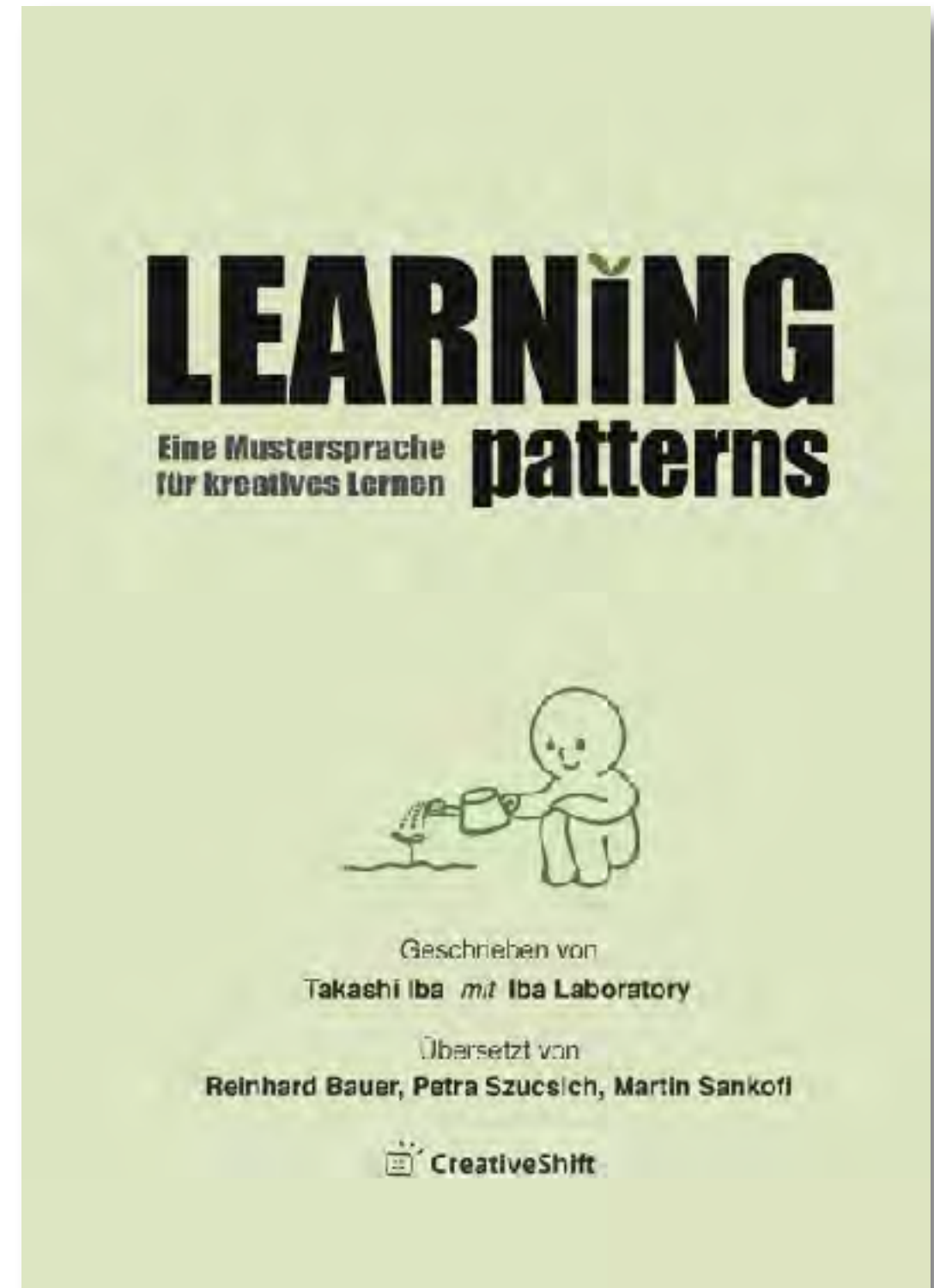
You can learn a lot from your peers with using a Pattern Language

Peer Learning
with Pattern Languages

pattern

pattern

pattern

pattern

pattern

Pattern Language as Vocabulary for Communication

experience as a whole

experience as a whole
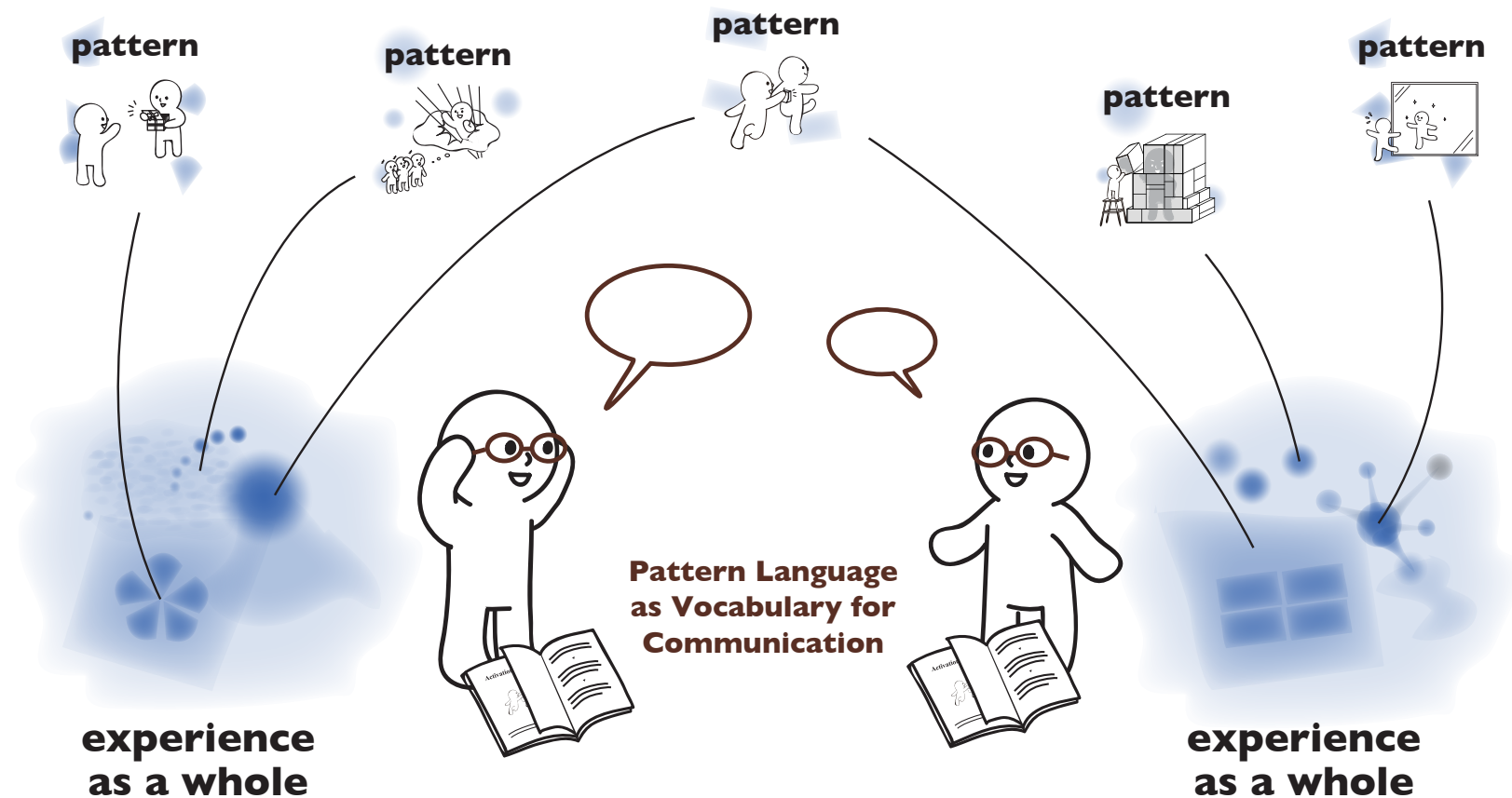
Using patterns for learning from others, not only from the patterns themselves

Words for a Journey

36 patterns for living well with dementia

in collaboration with Dementia Friendly Japan Initiative (DFJI)

WORDS FOR THOSE LIVING WITH DEMENTIA

WORDS FOR CARING FAMILIES

WORDS FOR EVERYONE

○ Takashi Iba, Tomoki Kaneko, Arisa Kamada, Nao Tamaki, Makoto Okada, "Words for a Journey: A Pattern Language for Living Well with Dementia," *Pursuit of Pattern Languages for Societal Change. Designing Lively Scenarios in Various Fields, Peter Baumgartner, Tina Gruber-Muecke, Richard Sickinger (Eds.),* **PURPLSOC**, 2016, pp.152-176

○ Takashi Iba, Aya Matsumoto, Arisa Kamada, Nao Tamaki, Tasuku Matsumura, Tomoki Kaneko, and Makoto Okada, "A Pattern Language for Living Well with Dementia: Words for a Journey," *5th International Conference on Collaborative Innovation Networks (***COINs***),* 2015

○ Takashi Iba, Aya Matsumoto, Arisa Kamada, Nao Tamaki, and Tomoki Kaneko, "A Pattern Language for Living Well with Dementia: Words for a Journey," *International Journal of Organisational Design and Engineering,* Volume 4, No. 1/2, 2016, pp.85-112

○ Takashi Iba, Makoto Okada, Iba Laboratory, Dementia Friendly Japan Initiative, *Words for a Journey: The Art of Being with Dementia,* CreativeShift, 2015

GOOD DESIGN AWARD 2015

WORDS FOR A JOURNEY
THE ART OF BEING WITH DEMENTIA

Takashi Iba & Makoto Okada
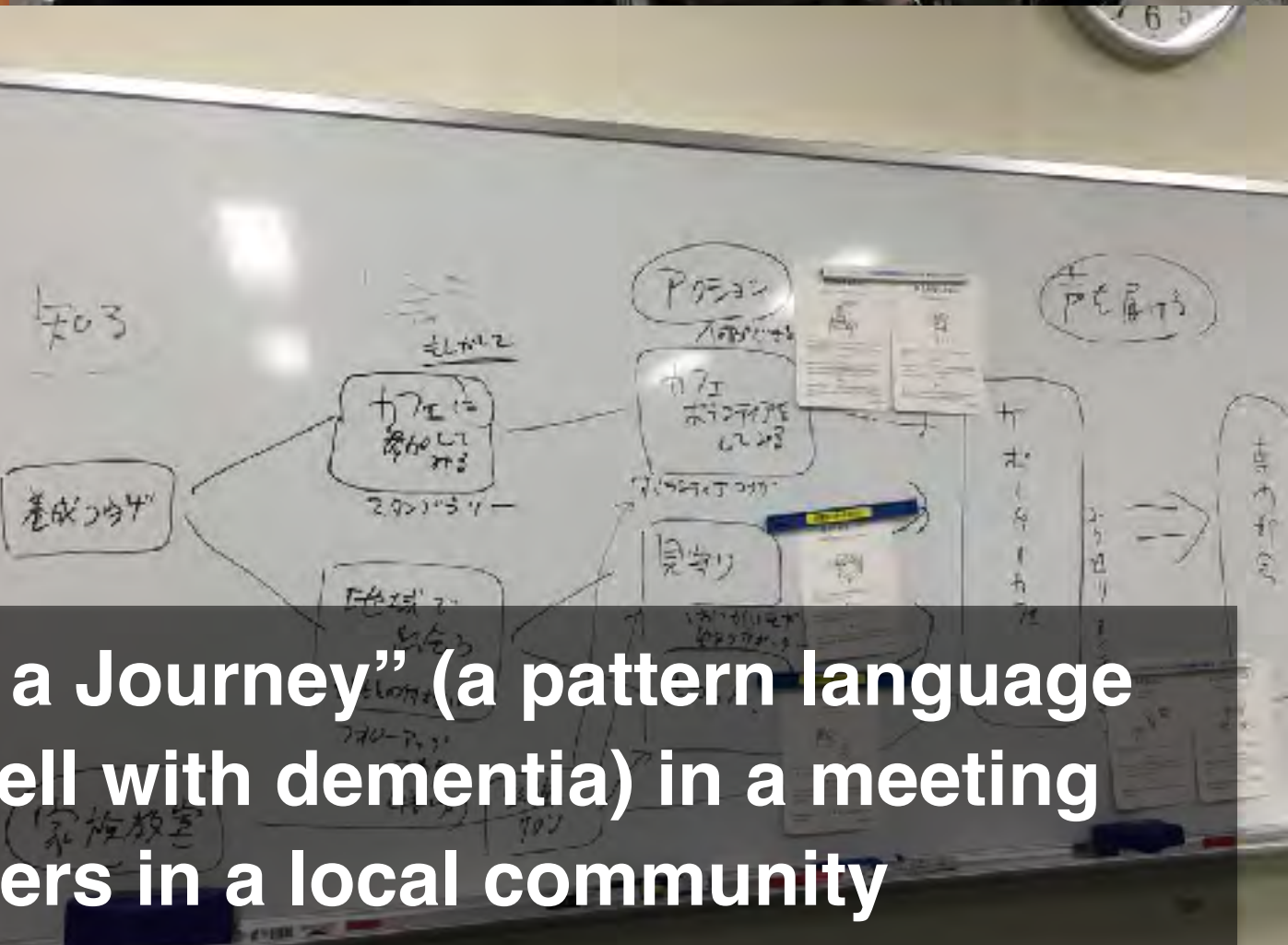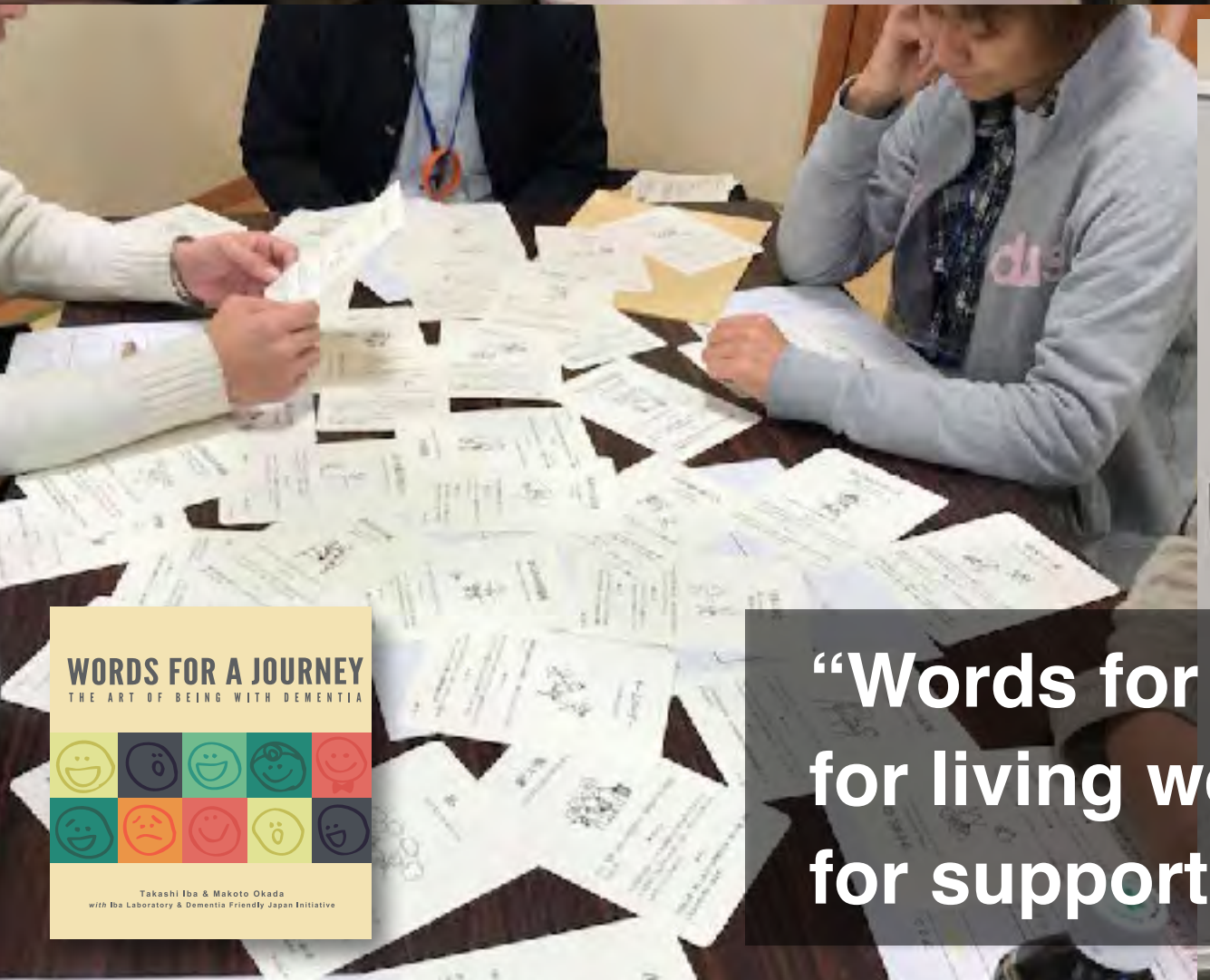*with* Iba Laboratory & Dementia Friendly Japan Initiative

Network of Related Patterns

Pattern Name

Self-Intro Album

A picture is worth a thousand words.
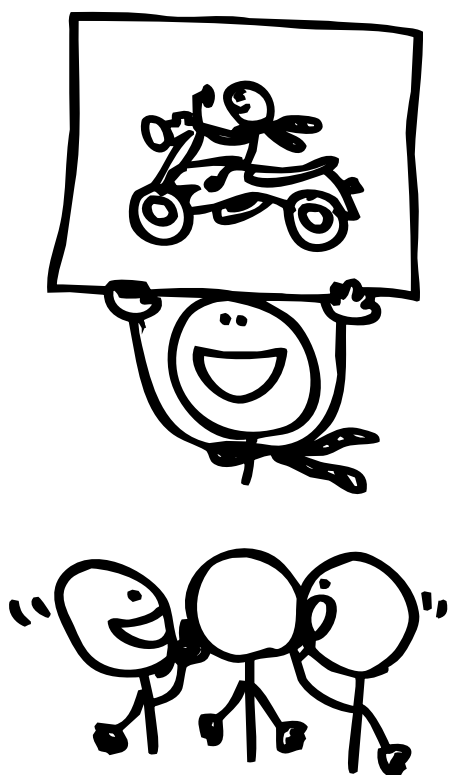
Context

You recently have many opportunities to meet new people.

▼ In this context

Problem

You sometimes have trouble introducing yourself with words. You notice yourself taking more time putting yourself into words. Or you may notice the person having trouble understanding your words. It is not unusual to have trouble remembering things about yourself on the spot. This might cause you a small panic, making the situation worse. If such situations occur multiple times, you might become afraid to meet new people again.

▼ Therefore

Solution

Keep a small item with you, such as an album, which you can use to show who you are. The album can contain pictures of your family, your work, and your hobby, for example. It can be anything related to you or your past: magazine clippings, favorite sayings…. When you meet someone new, you can show them the album to introduce and talk about yourself. Spend time with your family and friends to create the album together.

▼ Consequently

Consequence

This will basically become your portable "Self-Reflecting Room." With it, you can stay calm and easily introduce yourself to others. Better yet, the pictures and items in your "Self-Intro Album" will make your introduction more attractive and interesting. New conversations can start from the items in the album too. In addition, creating the album itself will become a fun and valuable time to reflect on yourself and your life. If you create it with your family and friends, even better.

Pattern Name

Can-Do List

Don't get too depressed
by the things you can't do.
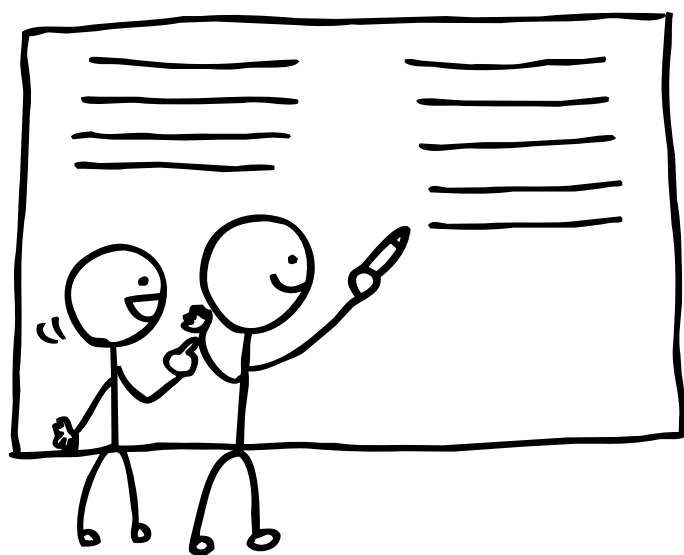
Context

You are trying to live positively with dementia, but there will still be times when you feel down.

▼ In this context

Problem

You may feel trapped by sad feelings caused by fright and worries about your future. Losing some of your abilities is a hard experience, and thinking that you might become more impaired is even harder. Because it may be hard for your family to notice small changes in you, it may seem that your family isn't taking these problems seriously. Stress from these things may cause you to feel down and keep your worries to yourself.

▼ Therefore

Solution

Make a list of the things that you can still do now. Take a pen and a piece of paper, and make the list as long as possible. The list can include activities from your everyday life, your hobby, or past work life. Talk to someone who can help you expand the list. Even the smallest things can go on the list.

▼ Consequently

Consequence

You should notice that there is still a lot that you can do. Even small things that once were ordinary and nothing special will become special once you see them on the list. This long list should make you feel better, and a positive attitude toward yourself should return. You can use the items on this list to make your "Daily Chore."

Can-Do List
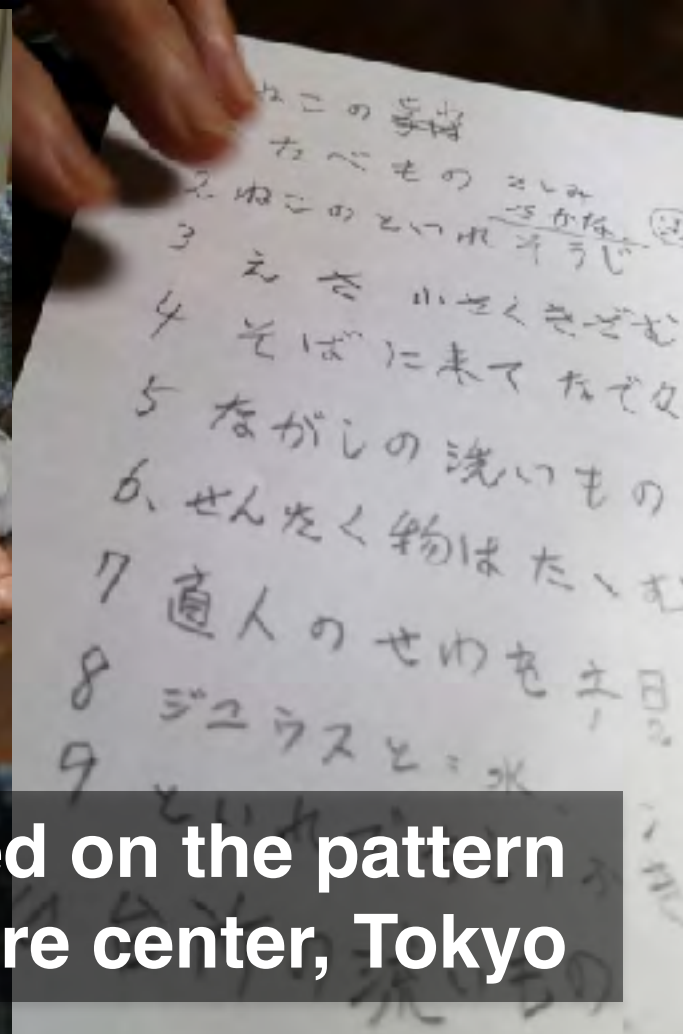
Practicing based on the pattern at a day care center, Tokyo

WORDS FOR A JOURNEY
THE ART OF BEING WITH DEMENTIA

Takashi Iba & Makoto Okada
with Iba Laboratory & Dementia Friendly Japan Initiative

旅の計画
ともに生きる未来をつくる。
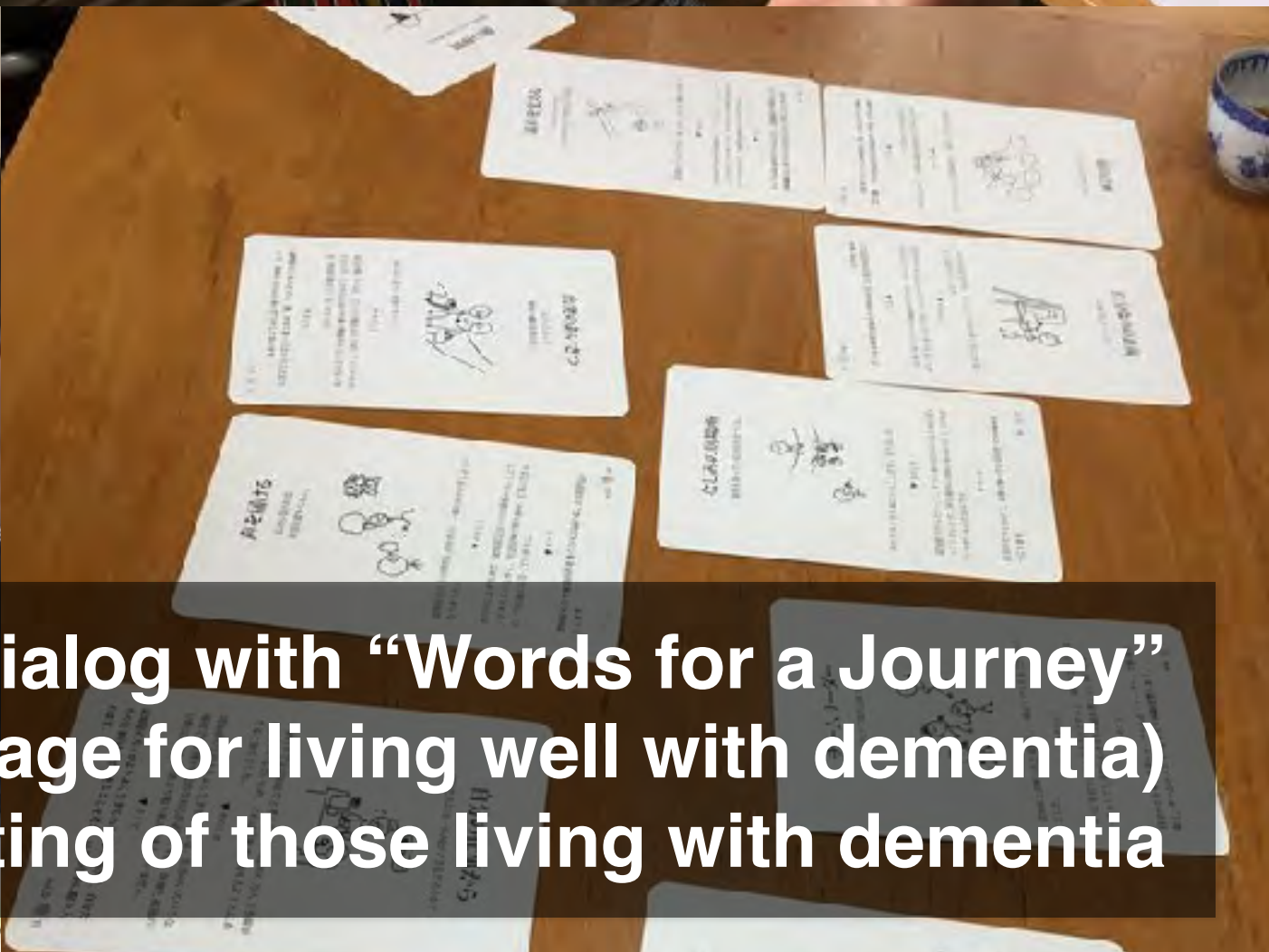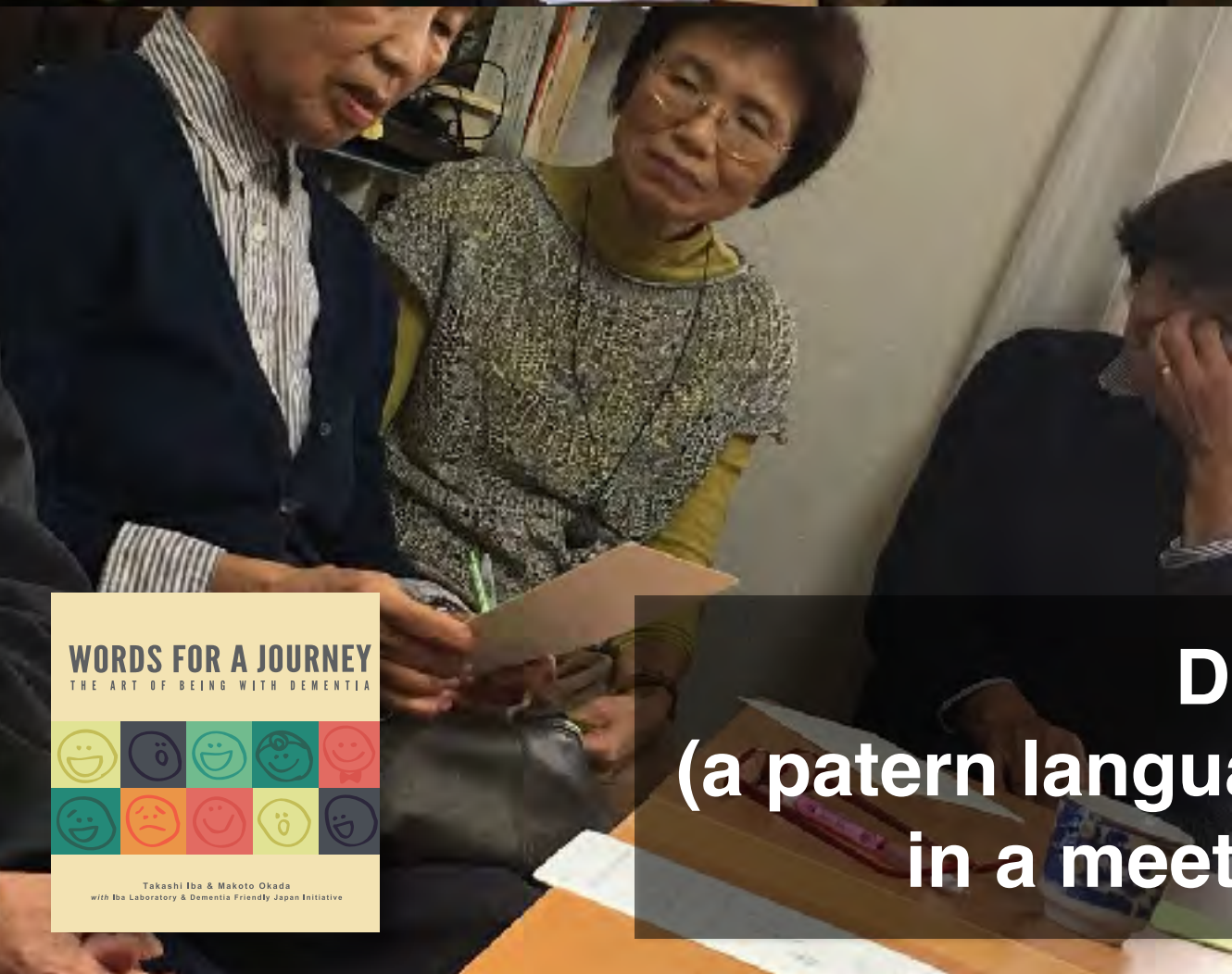
Dialog with "Words for a Journey"
(a patern language for living well with dementia)
in a meeting of those living with dementia

WORDS FOR A JOURNEY
THE ART OF BEING WITH DEMENTIA

Takashi Iba & Makoto Okada
with Iba Laboratory & Dementia Friendly Japan Initiative

D-cafe

D-cafe＝出張認知症カフェ

認知症の方や家族、支援者などが
気軽に集まり、情報交換や交流を
行う場です。毎月実施予定で
は11月20日(月)10:00〜12:00
です!

WORDS FOR A JOURNEY
THE ART OF BEING WITH DEMENTIA

Takashi Iba & Makoto Okada
with Iba Laboratory & Dementia Friendly Japan Initiative

Dementia cafe event at Starbucks Coffee, Tokyo

"Words for a Journey" (a pattern language for living well with dementia) in a meeting for supporters in a local community

特別な日

a meeting for student supporters in a local community, Kumamoto

WORDS FOR A JOURNEY
THE ART OF BEING WITH DEMENTIA

Takashi Iba & Makoto Okada
with Iba Laboratory & Dementia Friendly Japan Initiative

WORDS FOR A JOURNEY
THE ART OF BEING WITH DEMENTIA

Takashi Iba & Makoto Okada
with Iba Laboratory & Dementia Friendly Japan Initiative

Using the pattern language in a nursing education

"Words for a Journey" (Pattern Language for living well with dementia) cards are displayed at the waiting room in a hospital

認知症アクションガイドブック

旅への一歩

今を楽しむ

そして、そこで役割をもつ
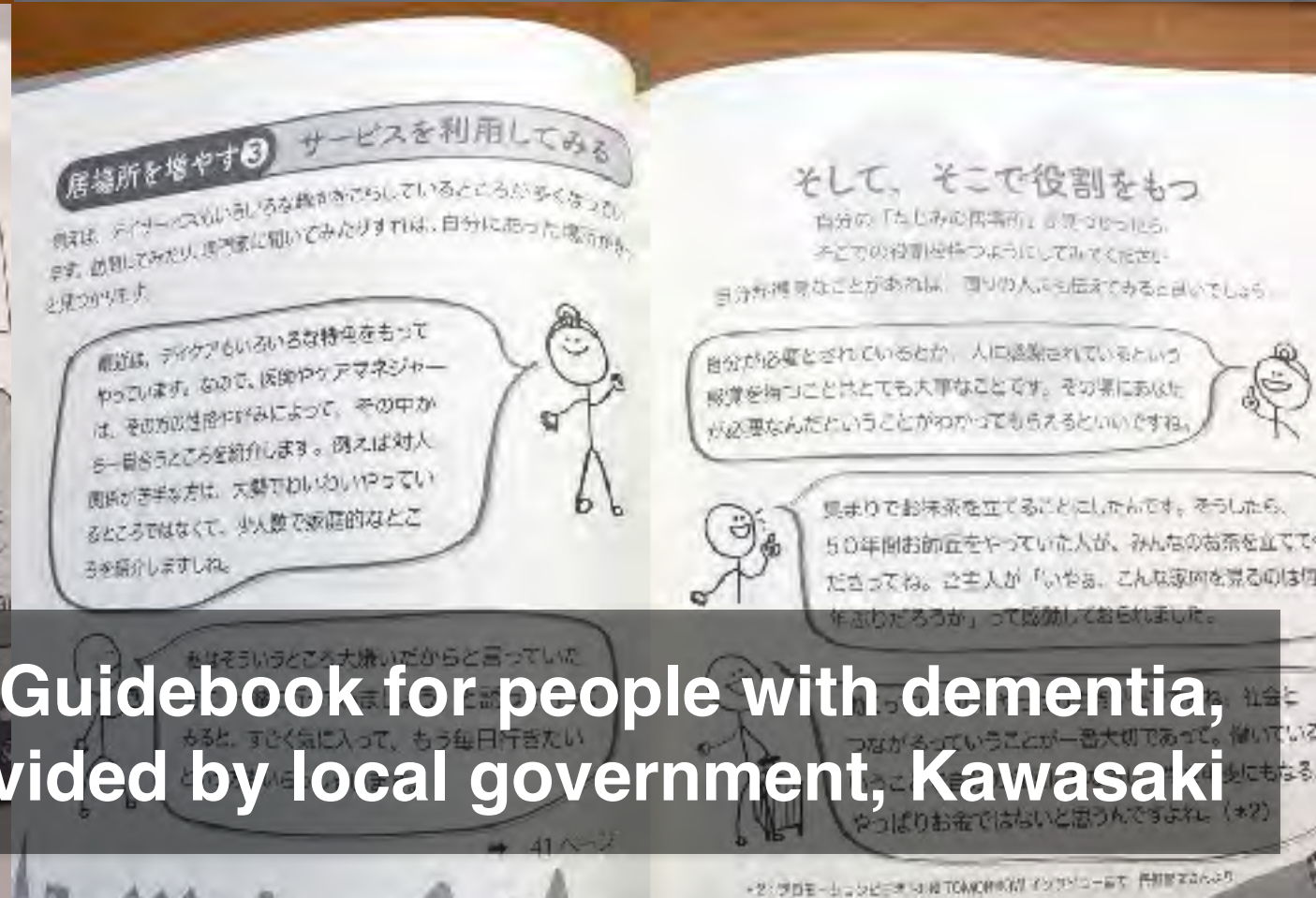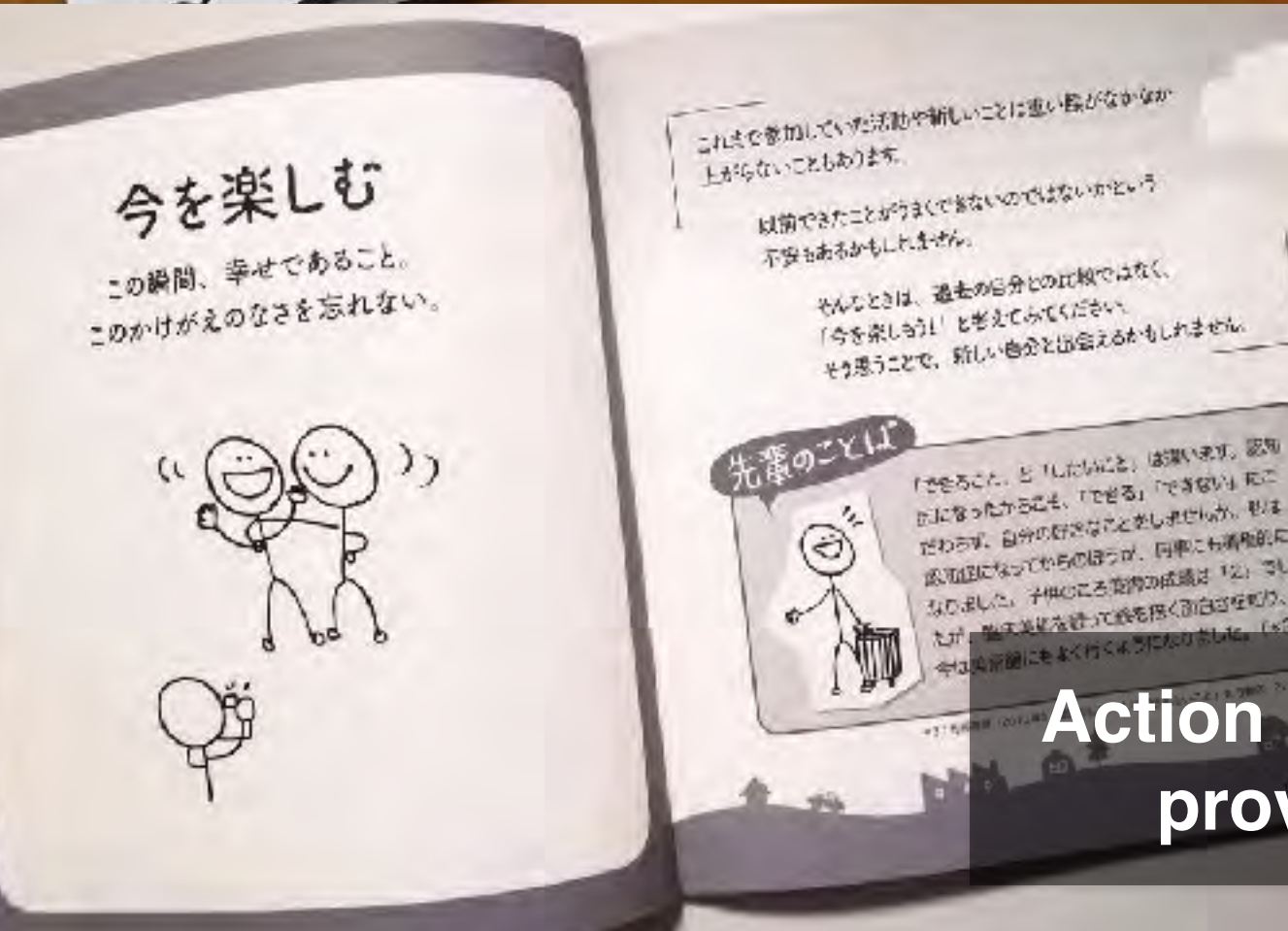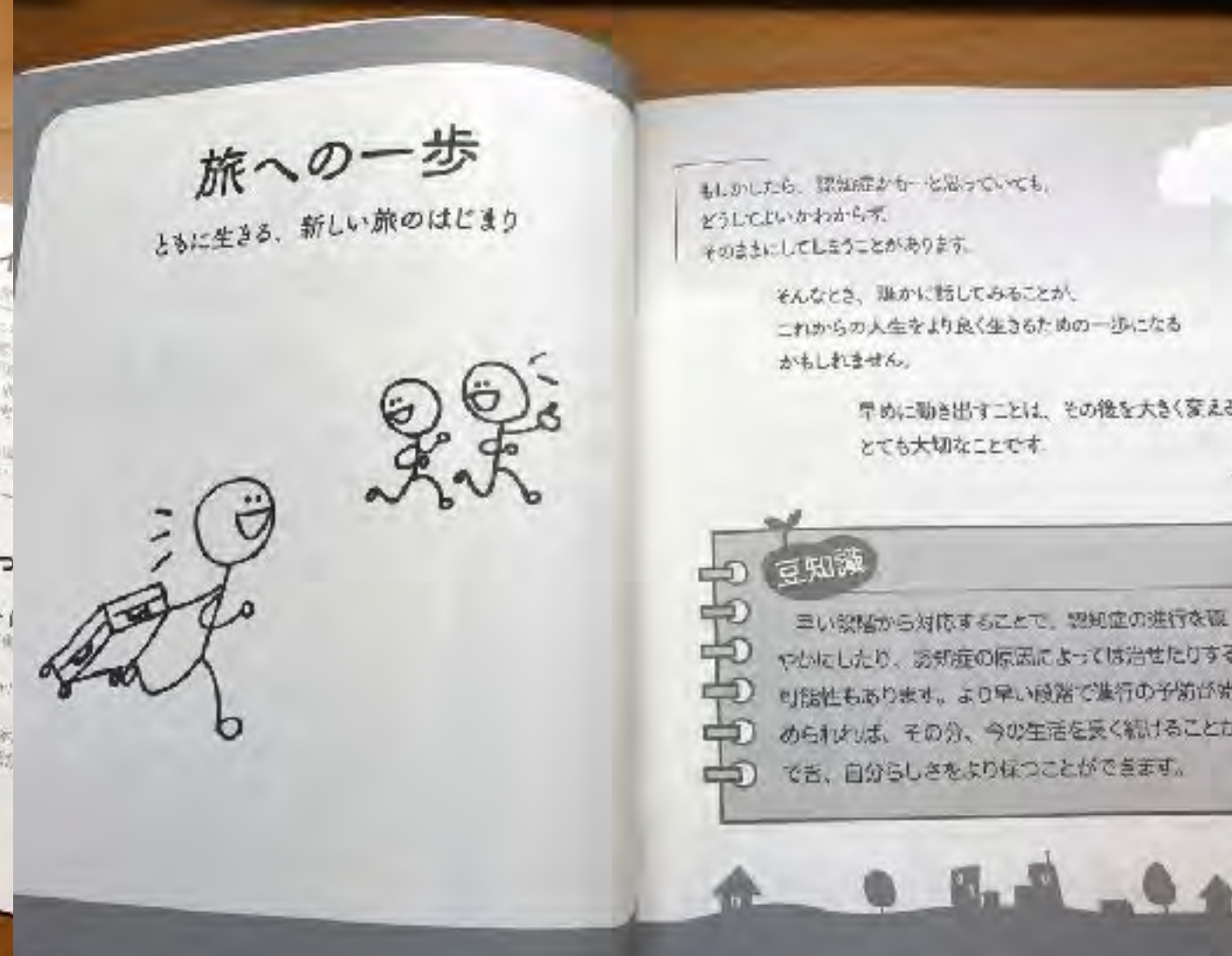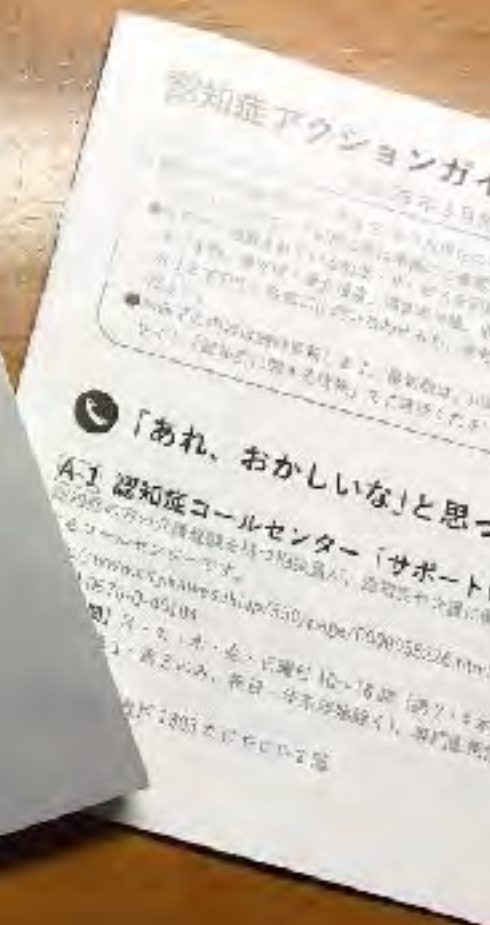
Action Guidebook for people with dementia, provided by local government, Kawasaki

Translated into traditional Chinese and published in Hong Kong and Taiwan

旅程的關鍵字

與認知障礙症共存的啟示

編著：井庭崇、岡田誠

著 ：慶應義塾大學井庭研究室、

認知障礙症 FRIENDLY JAPAN・INITIATIVE

三聯書店（香港）

No.7

自己的日課

都是小事，日日不輟。

需要請別人幫忙的事情越來越少。

▼
延伸

6. 能做的事情列表（頁四十八）

21. 活躍的晚齡（頁一百二十一）

38. 創造工作的機會（頁一百八十）

勁，也許會比從前更加充實豐富。

▼
於是

您不會變成完全依賴別人的「被照者」，而是能夠自己主動地去做一些事情。當您熟練實踐日課之後，就會形成每天的生活節奏，自信也從中產生，與家人的互

▼
所以

比如，給陽臺和庭院的植物澆水，給會的指狗飯食，招疊洗好的衣服，為家人沖咖啡等等，把想做似這些自己一個人能做到的事情，將它們作為日課。日日冒險，一邊參考「能做的事情列表」，一邊跟家人的

不妨和家人交流，發揮自己可以做到的事情，形成「日課」。

想法也不錯。

▼
那時

有時您覺得某些事情不要自己做比較好，然後把可能不必要的事情也拜託給別人，這樣一來，原本可以做到的事情也做不到了。

當然，您可能覺得像心自己能不能像以前一樣把事情做好，因比若入不安。而且，家人也總會不知不覺想要幫可能幫助您，於是替您做了很多事情。如果您自己想做到的事情都讓別人代勞的話，日常的刺激就會變弱，很可能會促使病情惡化。

Newspaper in UK

Takashi Iba, Makoto Okada,
Iba Laboratory , Dementia
Friendly Japan Initiative,
*Words for a Journey: The
Art of Being with Dementia,*
CreativeShift, 2015

**Very Quick Overview of
Other Pattern Languages we created**

Life with Reading

A Pattern Language for Creative Reading

27 patterns

in collaboration with Yurindo

○ Takashi Iba, Aimi Burgoyne, Ayaka Yoshikawa, Fumie Niwai, Norihiko Kimura, Yasushi Watanabe, "Life with Reading: A Pattern Language for Creative Reading," *PLoP '18: Proceedings of the 25th Conference on Pattern Languages of Programs*, ACM, 2018

○ Rio Nitta, Wataru Murakami, Yasushi Watanabe, Takashi Iba, "Supporting life with reading: 9 patterns from a pattern language for creative reading," *PLoP '18: Proceedings of the 25th Conference on Pattern Languages of Programs*, ACM, 2018

Cards to Enjoy Reading

A Pattern Language on Creative Reading for Kids   in collaboration with Yurindo

Inquiry-based Learning Patterns

A Pattern Language for Creative Inquiry

36 patterns for inquiry-based learning by high school students
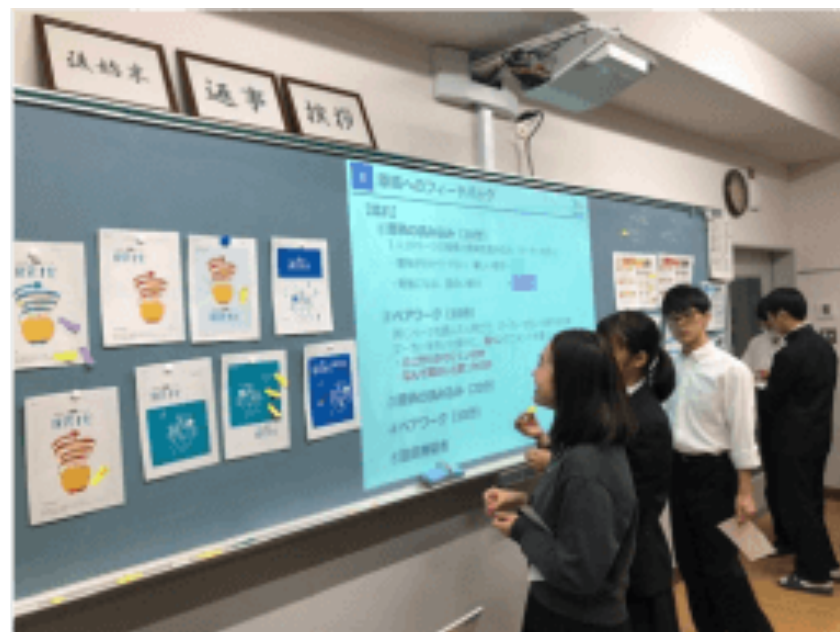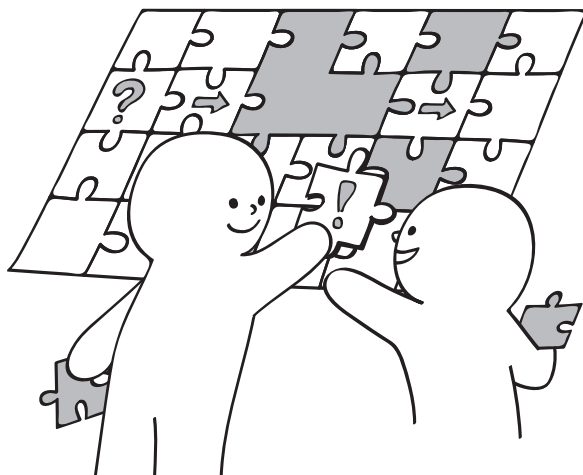
in collaboration with Benesse Corporation

Used in about more than 300 high schools (more than 100,000 students)
one hundred thousand

English paper and book have not been published yet

Life Transition Patterns

A Pattern Language for Shaping Your Future

27 patterns for life transition

in collaboration with Kawaijuku Educational Institution
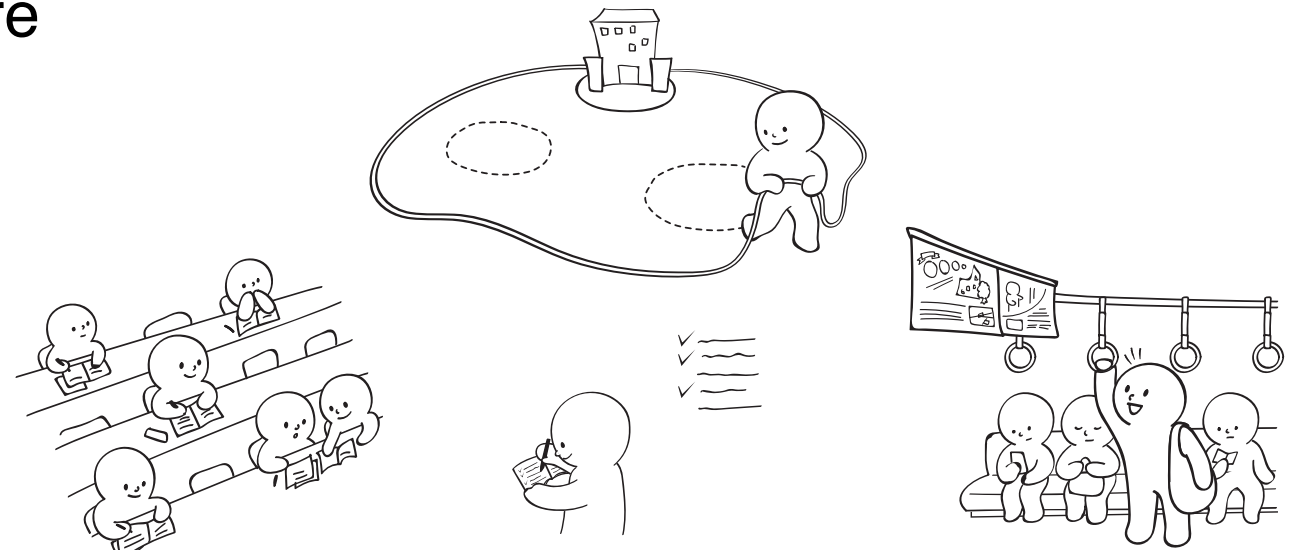
Takashi Iba & Tomoko Kubo, "Life Transition Patterns: A Pattern Language for Shaping Your Future", in R. Sickinger, P. Baumgartner, T. Gruber-Muecke (Eds.), *Pursuit of Pattern Languages for Societal Change. A comprehensive perspective of current pattern research and practice*, 2018.

Active Learning Patterns for Teachers

45 patterns for teachers to support their students to be a active learners
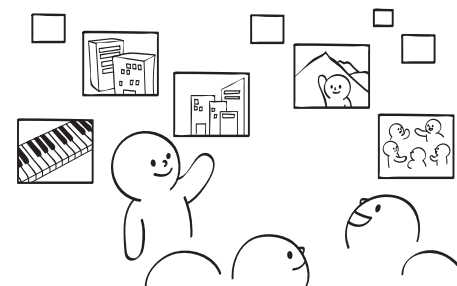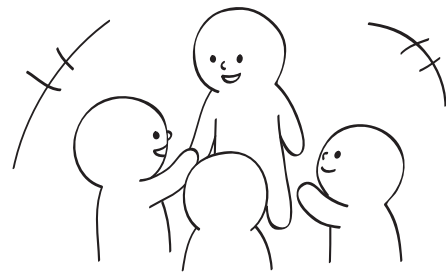
in collaboration with Benesse Corporation

Used in more than 400 schools

Takashi Iba & Yoshihiro Utsunomiya, "Active Learning Patterns for Teachers", in in R. Sickinger, P. Baumgartner, T. Gruber-Muecke (Eds.), *Pursuit of Pattern Languages for Societal Change. A comprehensive perspective of current pattern research and practice*, 2018.
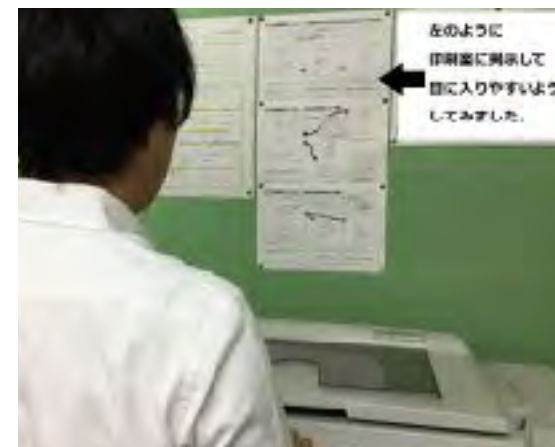
Online Education Patterns

A Pattern Language for Designing Learning Styles in the Online Age

0. Redesigning for Online Learning

LINKING SEPARATE WORLDS

VISUAL RADIO

1. Radio Host Spirit
2. Asynchronous Interaction
3. Operation Team

DRAWING STUDENTS INTO THE CLASSROOM ATMOSPHERE

4. Inviting Opening
5. Sharing Excitement
6. Exemplary Reactors

FEELING EACH OTHER'S PRESENCE

7. Encouraging Cameras On
8. Written Voices
9. Priming Water for Chat Flow

INTERACTION BETWEEN STUDENTS

10. Casual Discussion
11. Conversation Starter
12. Familiar Members

CREATING A NEW FORM OF LEARNING

MAKING THE MOST OF SEPARATE ENVIRONMENTS

13. Discovering in Proximity
14. Close Reality from Afar
15. Benefits of Anonymity

DESIGNING LEARNING THROUGH THE INFOSPERE

16. Creator's Point of View
17. Parallel Rooms
18. Others' Thoughts

DEVELOPING A WHOLE FROM PARTS

19. From Small Groups
20. By Students for Students
21. Weaving Discoveries

BEYOND THE TIMETABLE

22. Asynchronous & Synchronous Mix
23. Viewing Period
24. Additional Clips

BUILDING A SENSE OF BELONGING

CREATING A COMFORTABLE PLACE TOGETHER

25. Even the Slightest
26. Frequently Incorporating Voices
27. Class Designers

SUPPORTING STUDENTS' CONNECTIONS

28. Chit-Chat Closing
29. Platform for Connection
30. Small Comfort Zone

CREATING A MEMORABLE SENSE OF UNITY

31. Festive Mode
32. Something Special
33. Capturing Lively Moments

VIRTUAL SENSE OF BELONGING

34. Drop By Study Hall
35. Remote Office Hours
36. Virtual Campus

○ Kiyoka Hayashi, Sawami Shibata, Erika Inoue, Sae Adachi, "Online Education Patterns, Part 1: Patterns for Linking Separate Worlds." *EuroPLoP'21: 26th European Conference on Pattern Languages of Programs*, ACM, 2021

○ Sae Adachi, Sawami Shibata, Erika Inoue, Kiyoka Hayashi, Takashi Iba, "Online Education Patterns, Part 2: Patterns for Creating a New Form of Learning," *28th Conference on Pattern Languages of Programs (PLoP'21)*, 2021.

Words for a Dialogue

A Pattern Language for Dissolving Problems Based on the Open Dialogue Approach

30 patterns

○ Takashi Iba, Masafumi Nagai, Reiko Asano, Tsuyoshi Ishida, Misa Eguchi, Airi Matsumiya, "Open dialogue patterns: a pattern language for collaborative problem dissolving", *Proceedings of the **VikingPLoP 2017** Conference on Pattern Languages of Program, 2017*

○ Masafumi Nagai, Takashi Iba, "Using Open Dialogue Patterns to Improve Conversation in Daily Life", in F. Grippa, et al. (eds), *Collaborative Innovation Networks: Building Adaptive and Resilient Organizations*, Springer International Publishing, 2018, pp.211-222

English translation book will be published in 2023

対話のことば

オープンダイアローグに学ぶ
問題解消のための対話の心得

「オープンダイアローグの知を日常に。
対話の新たな可能性がここにある。」

（筑波大学 医学医療系社会精神保健学教授 斎藤 環）

井庭 崇　長井雅史 著

丸善出版

Project Design Patterns

32 patterns for generating ideas and cultivating them

in collaboration with UDS Ltd.
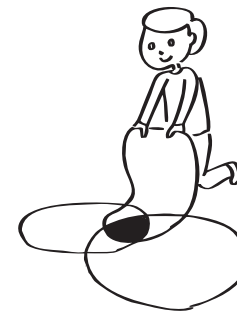
○ Tetsuro Kubota, Yuji Harashima, Haruka Mori, Toru Ishida, Kaori Harasawa, and Takashi Iba, "Project Design Patterns: Patterns for Designing Architectural Projects," *5th Asian Conference on Pattern Languages of Programs (**AsianPLoP2016**)*, 2016

○ Takashi Iba, Haruka Mori, and Ayaka Yoshikawa, "A Pattern Language for Designing Innovative Projects: Project Design Patterns," *International Journal of Entrepreneurship and Small Business*, Vol. 36, 2019, pp.491-518

○ Takashi Iba, Fumio Kajiwara, *Project Design Patterns: 32 Patterns of Practical Knowledge for Producers, Project Managers, and Those Involved in Launching New Businesses*, translated by Ayaka Yoshikawa, CreativeShift, 2019

Project Design Patterns

Korean translation was published in 2018

이바 다카시, 가지와라 후미오, 역자 김영주, 모모세 히로유키, 기획은 패턴이다, 북스톤, 2018

Value-Creation Marketing Patterns
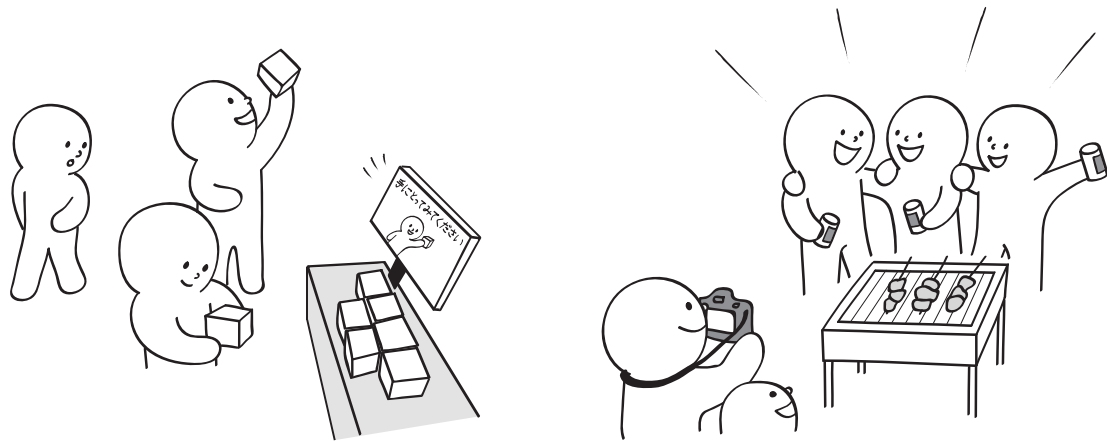
40 patterns (+113 action patterns) for practicing and mastering value-creation marketing
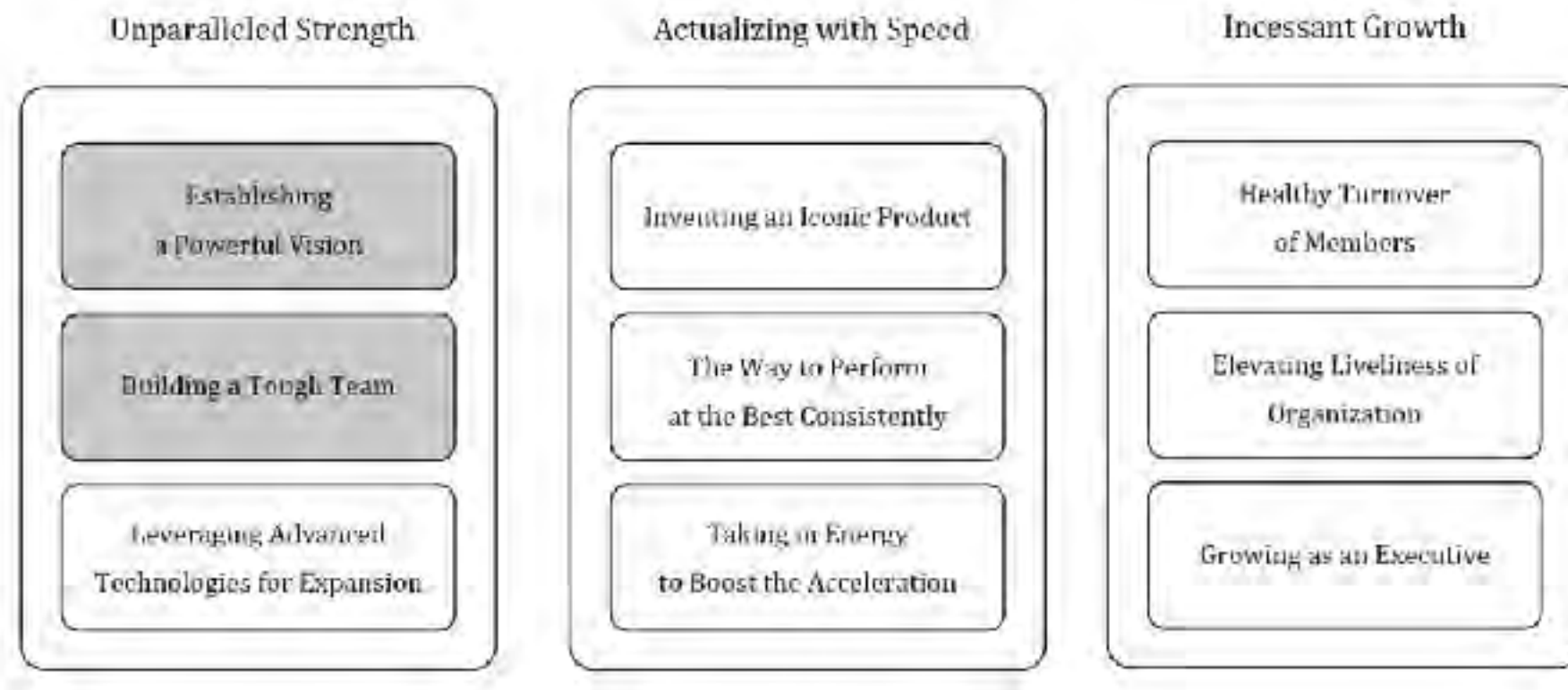
感性科学マーケティング・パターン
実践・習得のコツのことば
カード

ORACULUM
ORACULUM CO.,LTD
オラクルひと・しくみ研究所

○ Iba, T., Masai, M., Abe, Y., and Kosaka, Y., "Patterns for Motivating Customers in a Pattern Language for Affective-Science-based Marketing", *9th Asian Conference on Pattern Languages of Programs (AsianPLoP2020)*, 2020

○ Iba, T., Masai, M., Abe, Y., and Kosaka, Y., "Patterns for Building Customer Relationships in a Pattern Language for Affective-Science-based Marketing", *European Conference on Pattern Languages of Programs (EuroPLoP2020)*, 2020

○ Iba, T., Masai, M., Abe, Y., and Kosaka, Y., "Patterns for Learning Through Practice in a Pattern Language for Affective-Science-based Marketing", *27th Conference on Pattern Languages of Programs (PLoP2020)*, 2020

Startup Patterns

**A Pattern Language for Developing Enterprise to Create the Future**

Unparalleled Strength	Actualizing with Speed	Incessant Growth
Establishing a Powerful Vision	Inventing an Iconic Product	Healthy Turnover of Members
Building a Tough Team	The Way to Perform at the Best Consistently	Elevating Liveliness of Organization
Leveraging Advanced Technologies for Expansion	Taking in Energy to Boost the Acceleration	Growing as an Executive

in collaboration with Chiba Dojo

Yuki Kawabe, Takashi Iba, Yuya Oka, Kotaro Chiba,"Start-up Patterns: A Pattern Language for Developing Enterprise to Create the Future," in *28th Conference on Pattern Languages of Programs (PLoP'21)*, 2021.

Change Making Patterns

○ Eri Shimomukai, Sumire Nakamura, and Takashi Iba, "Social Entrepreneurship Patterns: A Pattern Language for Change-Making on Social Issues," *Proceedings of the 17th European Conference on Pattern Languages of Programs (EuroPLoP2012)*, 2012

○ Eri Shimomukai, Sumire Nakamura, and Takashi Iba, "Change Making Patterns: A Pattern Language for Fostering Social Entrepreneurship," *Proceedings of the 19th Conference on Pattern Languages of Programs (PLoP2012)*, 2012

○ Sumire Nakamura, Eri Shimomukai, Taichi Isaku, and Takashi Iba, "Change Making Patterns Workbook: A Workbook Approach to Patterns Applications," *Proceedings of the 21st Conference on Pattern Languages of Programs (PLoP2014)*, 2014

○ Eri Shimomukai, Sumire Nakamura with Takashi Iba, *Change Making Patterns: A Pattern Language for Fostering Social Entrepreneurship*, CreativeShift, 2015

Change Making Patterns
A Pattern Language for Fostering
Social Entrepreneurship

Eri Shimomukai
Sumire Nakamura
with Takashi Iba
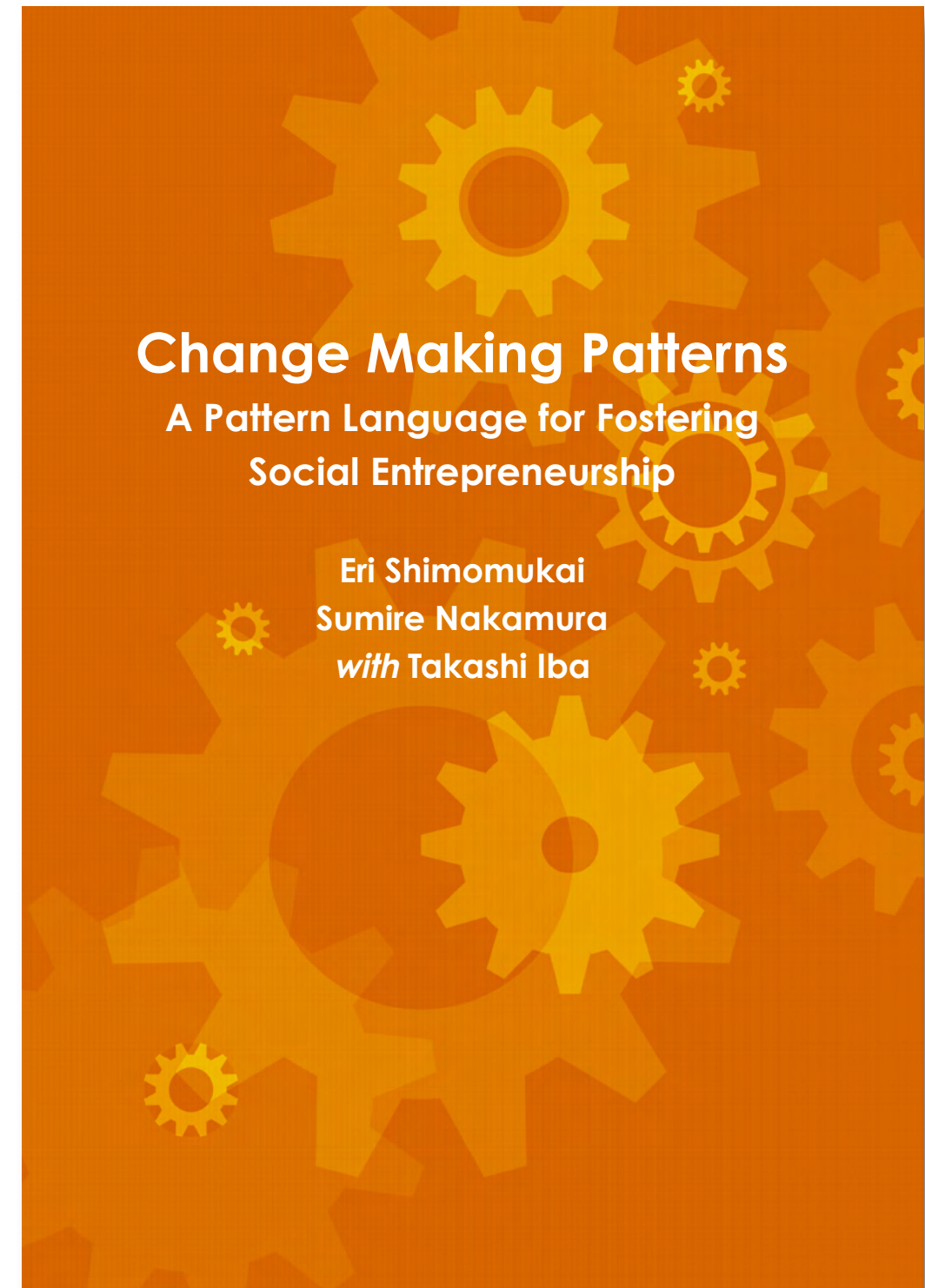
Omotenashi (Hospitality) Design Patterns

28 patterns for creative hospitality   in collaboration with UDS Ltd.

Words for Caring: A Pattern Language for Living Together at a Nursing Home for the Elderly
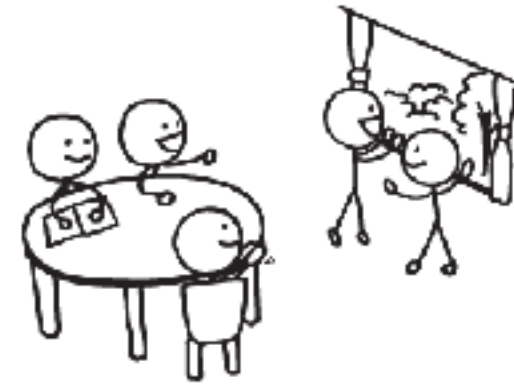

Tomoki Kaneko, Takashi Iba, Konomi Munakata, "The 30 Extracted Patterns of the Innovative Practices of Dementia Care Service in Japan," 2022 ADI Asia Pacific Regional Conference (2022 ADI-APRC), 2022

Middle Leader Patterns for Child Care

27 patterns for middle leader at preschools and kindergarten

in collaboration with The Center for Early Childhood Development, Education, and Policy Research (cedep) at Graduate School of Education at The University of Tokyo.
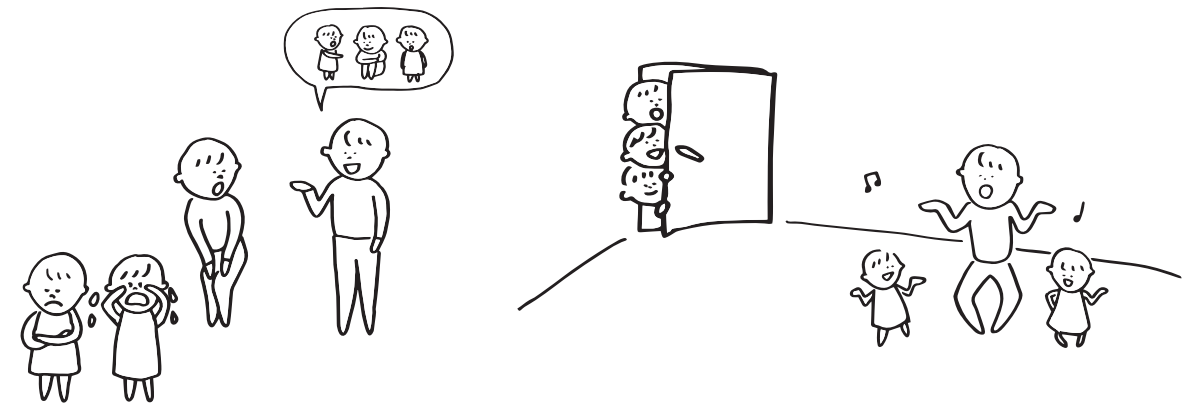
English paper and book have not been published yet

Ways of Everyday World-Making

34 patterns for living well with Working and Parenting

in collaboration with Kao Corporation
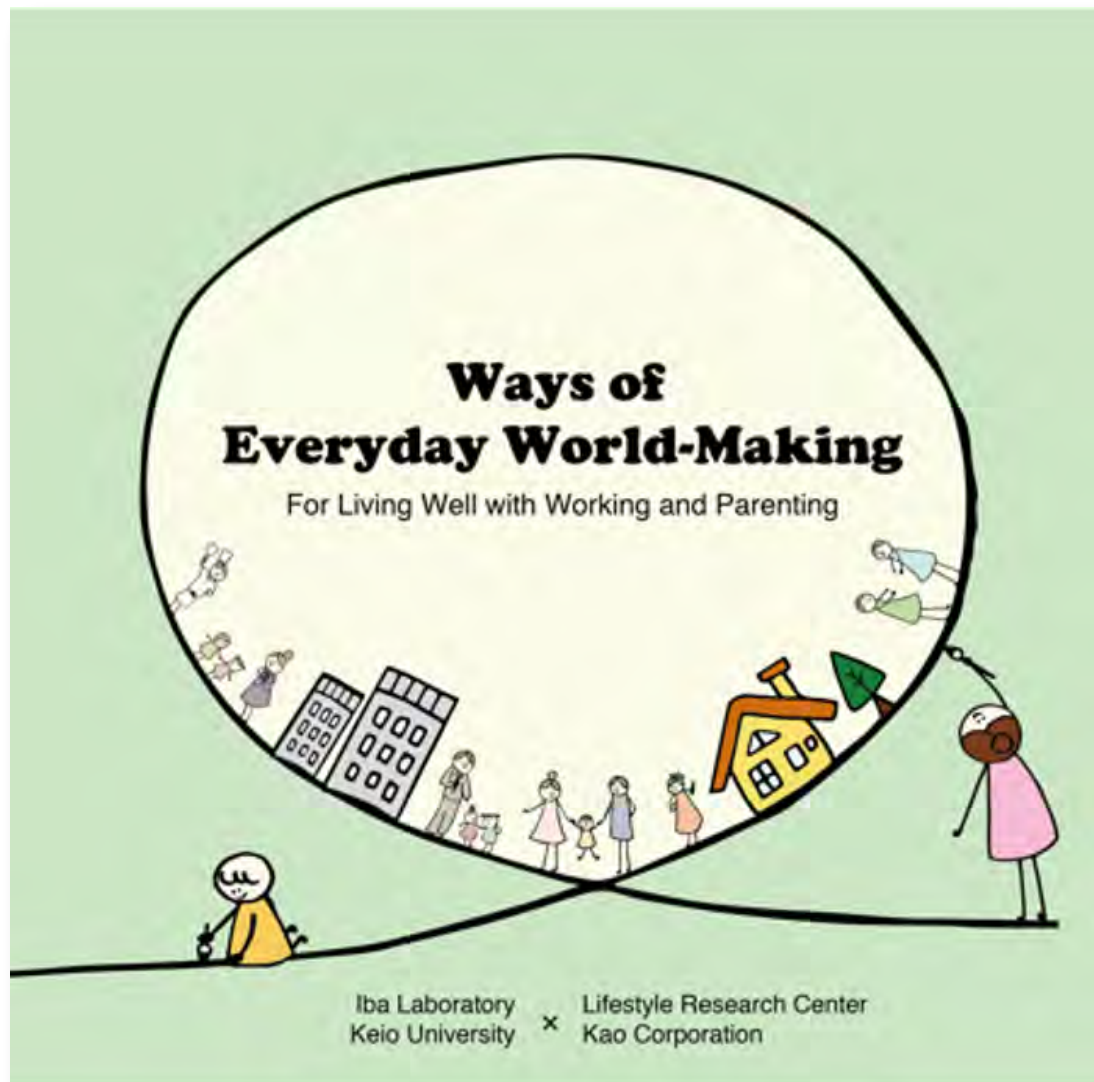
Iroha Ogo, Takashi Iba, Kimie Ito, Seiko Miyakawa, "Ways of Everyday World-Making: Living well with Working and Parenting", in in R. Sickinger, P. Baumgartner, T. Gruber-Muecke (Eds.), *Pursuit of Pattern Languages for Societal Change. A comprehensive perspective of current pattern research and practice*, 2018.

Cooking Patterns

A Pattern Language for Cooking in Everyday Life

47 patterns for life with Cooking, improving cooking skills, and enjoying cooking

in collaboration with Cookpad, Inc.

Cooking Patterns

A Pattern Language for Cooking in Everyday Life

Takashi Iba Ayaka Yoshikawa Yuma Akado
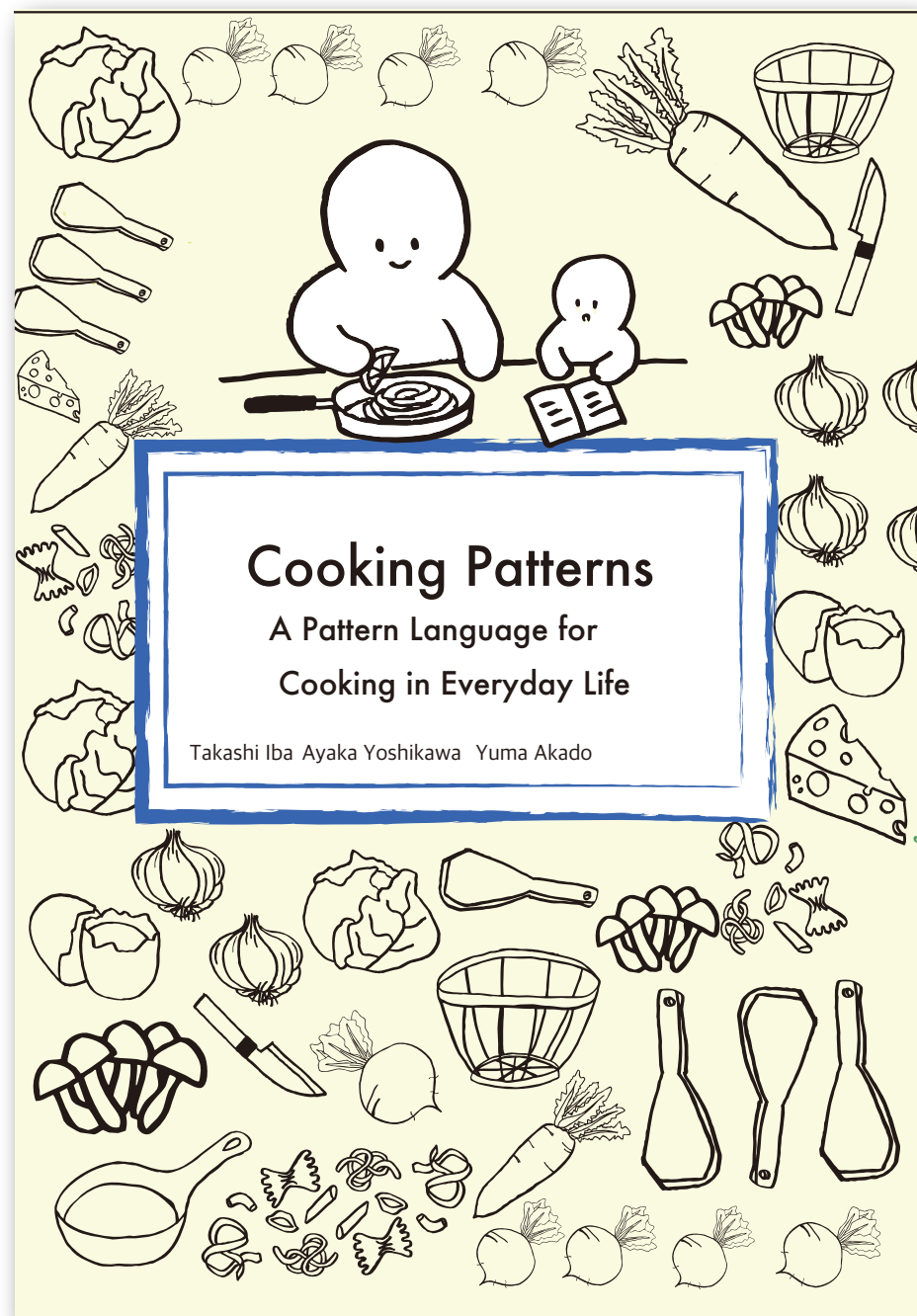
English edition book will be published in 2023
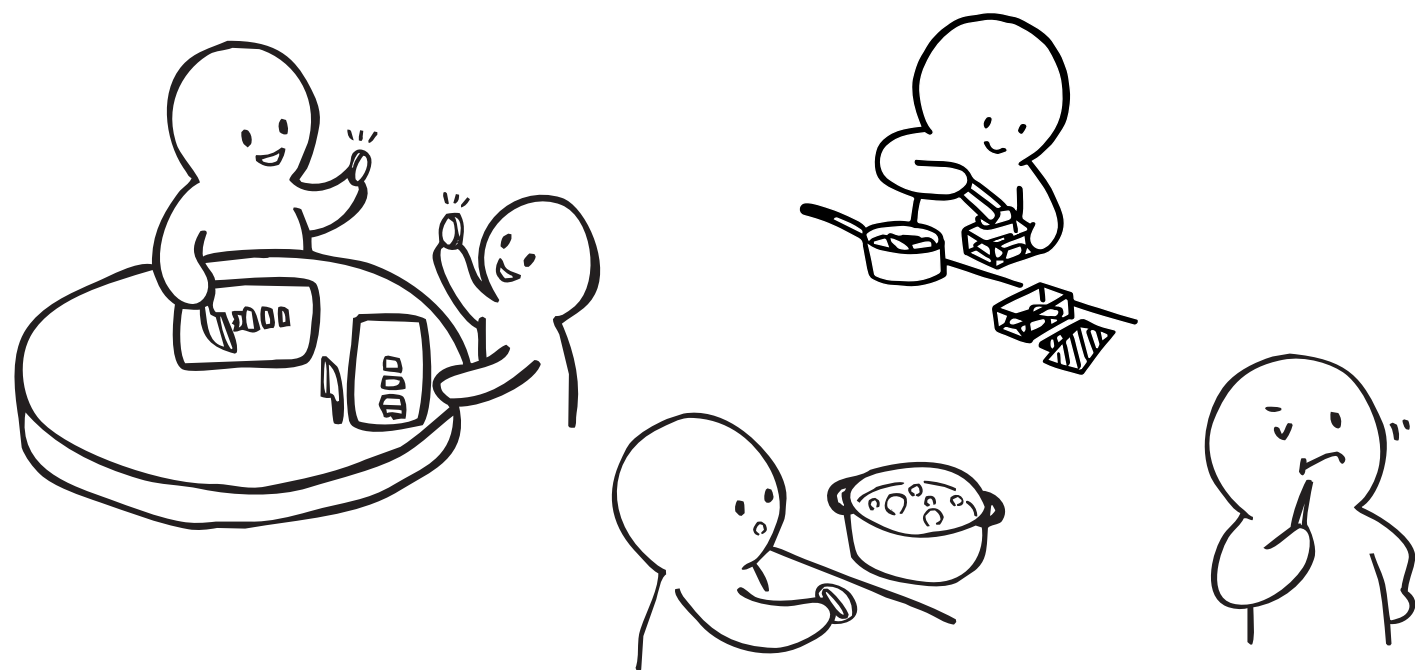
○ Yuma Akado, Shiori Shibata, Ayaka Yoshikawa, Aki Sano, and Takashi Iba "Cooking Patterns: A Pattern Language for Everyday Cooking," *5th Asian Conference on Pattern Languages of Programs (AsianPLoP 2016)*, 2016

○ Takashi Iba, Ayaka Yoshikawa, Tomoki Kaneko, Norihiko Kimura, Tetsuro Kubota, "Pattern Objects: Making Patterns Visible in Daily Life" in Matthaus P. Zylka, Hauke Fuehres, Andrea Fronzetti Colladon, Peter A. Gloor (eds.), *Designing Networks for Innovation and Improvisation*, Springer International Publishing, 2016, pp.105-112

https://link.springer.com/chapter/10.1007/978-3-319-42697-6_11

Cook-That-Dish Patterns for Tacos

27 patterns

Ayaka Yoshikawa, Hitomi Shimizu & Takashi Iba, "Cook-That-Dish Patterns for Tacos: A Tool for Collaborative Cooking", in in R. Sickinger, P. Baumgartner, T. Gruber-Muecke (Eds.), *Pursuit of Pattern Languages for Societal Change. A comprehensive perspective of current pattern research and practice*, 2018.

Survival Language

A Pattern Language for Surviving Earthquakes
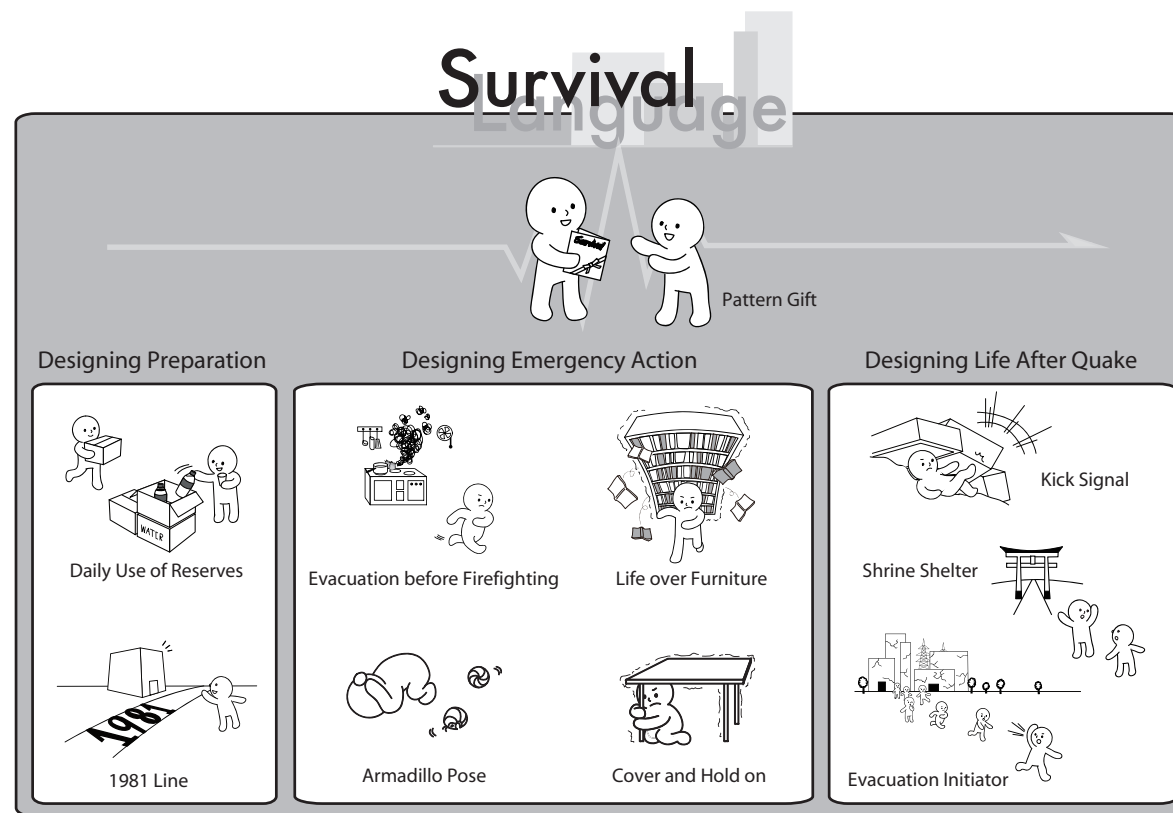
in collaboration with Satoko Oki Lab, Keio SFC

○ Tomoki Furukawazono, Shota Seshimo, Daiki Muramatsu, and Takashi Iba, "Survival Language: A Pattern Language for Surviving Earthquakes," *Proceedings of the 20th Conference on Pattern Languages of Program (**PLoP2013**)*, 2013

○ Tomoki Furukawazono, Shota Seshimo, Daiki Muramatsu, and Takashi Iba, "Designing a Pattern Language for Surviving Earthquakes," *4th International Conference on Collaborative Innovation Networks (**COINs**)*, 2013

○ Tomoki Furukawazono, Takashi Iba with Survival Language Project, *Survival Language: A Pattern Language for Surviving Earthquakes*, CreativeShift, 2015
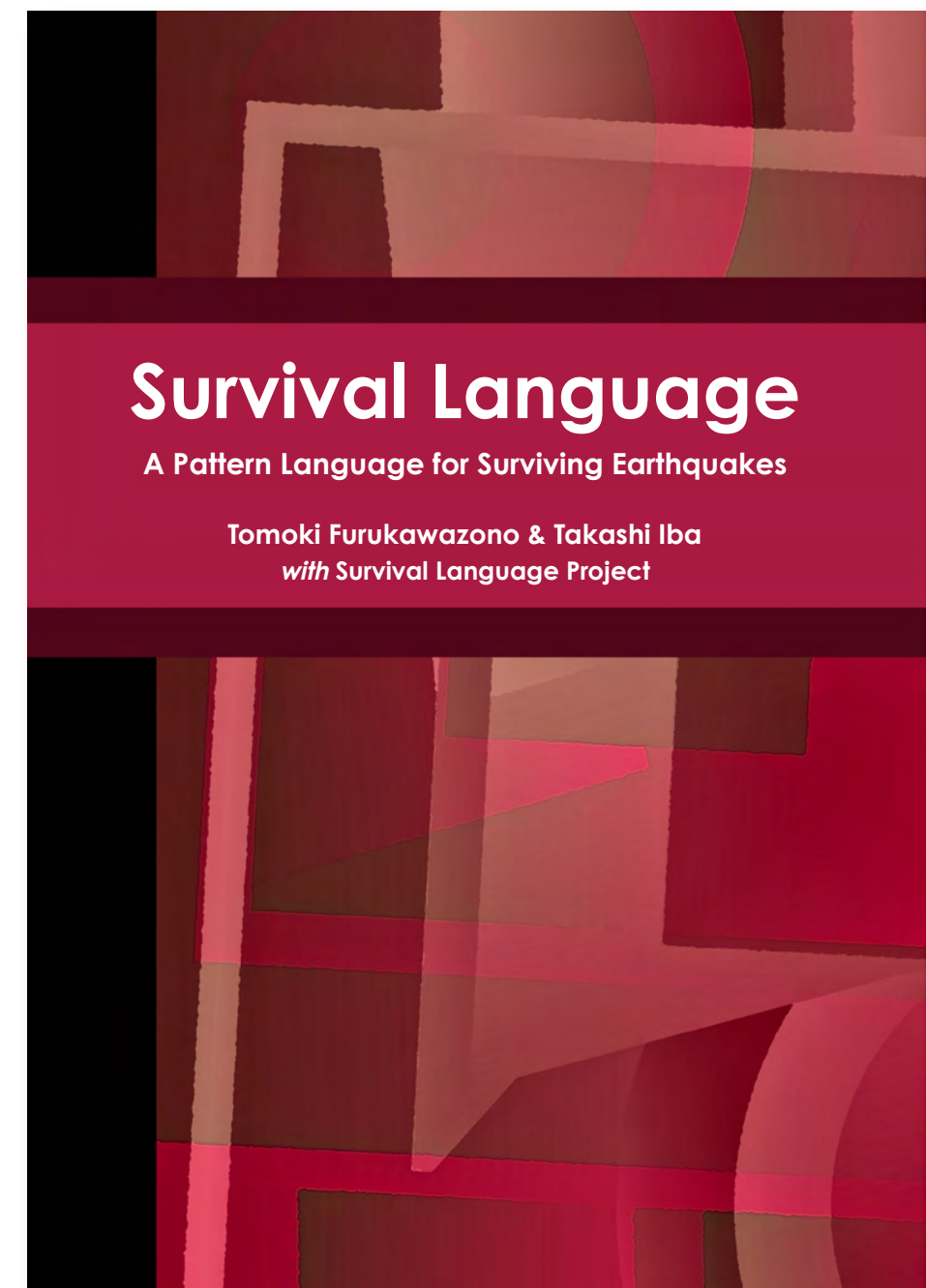
Leveraging Digital Technology to Build a Better Future
Digital Agency, Japan Government

Hints for living during the COVID-19 pandemic
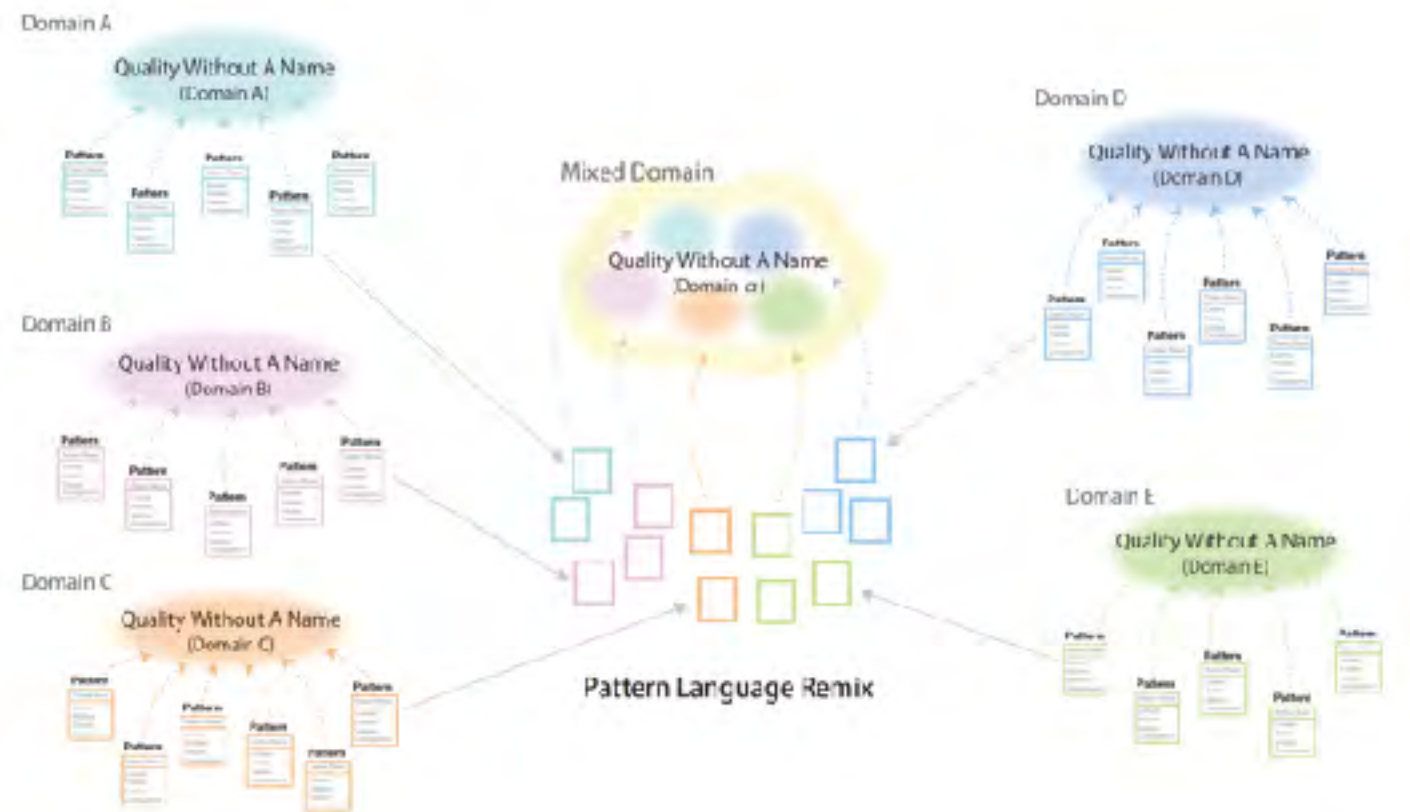
Takashi Iba, "Support for living better throughout the COVID-19 situation using pattern languages: an attempt at pattern language remix in an emergency", *PLoP '20: Proceedings of the 27th Conference on Pattern Languages of Programs*, ACM, 2020

A Pattern Language for Creating a City with Natural, Local and Creative Elements

in collaboration with Mitsu Yamazaki

Learned from Portland, Oregon

1. NATURAL × LOCAL × CREATIVE

NATURAL

ENJOY THE NATURE
2. Accessible Trails
3. Nearby Farms
4. Seasonal Experience

ECO-FRIENDLY AND HUMAN-FRIENDLY LIFE
5. Human Lives Build on Nature
6. Blank Space in A Town
7. Ecological Richness

LIFE AS A PART OF NATURE
8. The Green that was There
9. Nature Surrounding Town
10. A Preserved Ecosystem

LOCAL

A TOWN WITH OVERFLOWING CONNECTIONS
11. A Walkable Distance
12. The Town that is Mixed Up
13. An Opened Place

CYCLES WITHIN A TOWN
14. Nurtured Texture
15. Farmer's Market
16. The Cycle of Thing

ESTABLISHMENT OF TOWN IDENTITY
17. Local Shops
18. Stores with Passion and Originality
19. Producing Connection

CREATIVE

A TOWN GROWING RESIDENTS' INTERESTS
20. Lifestyling
21. Gallery of Specialties
22. Positive Attitude towards Uniqueness

A TOWN WHICH RESIDENTS CAN ACHIEVE THEIR VISION
23. Craft Space
24. Diving in Startup
25. Margins for Change

CREATING OWN TOWN
26. Town Guideline
27. Drawing Own Town
28. Ideal Image beyond Challenges

Misaki Yamakage, Sakie Namiki, Sawami Shibata, Kiyoka Hayashi, Takashi Iba and Mitsuhiro Yamazaki, "A Pattern Language for Creating a City with Natural, Local and Creative Elements Learned from Portland, Oregon", *PUARL + Building Beauty Conference 2020*, 2020

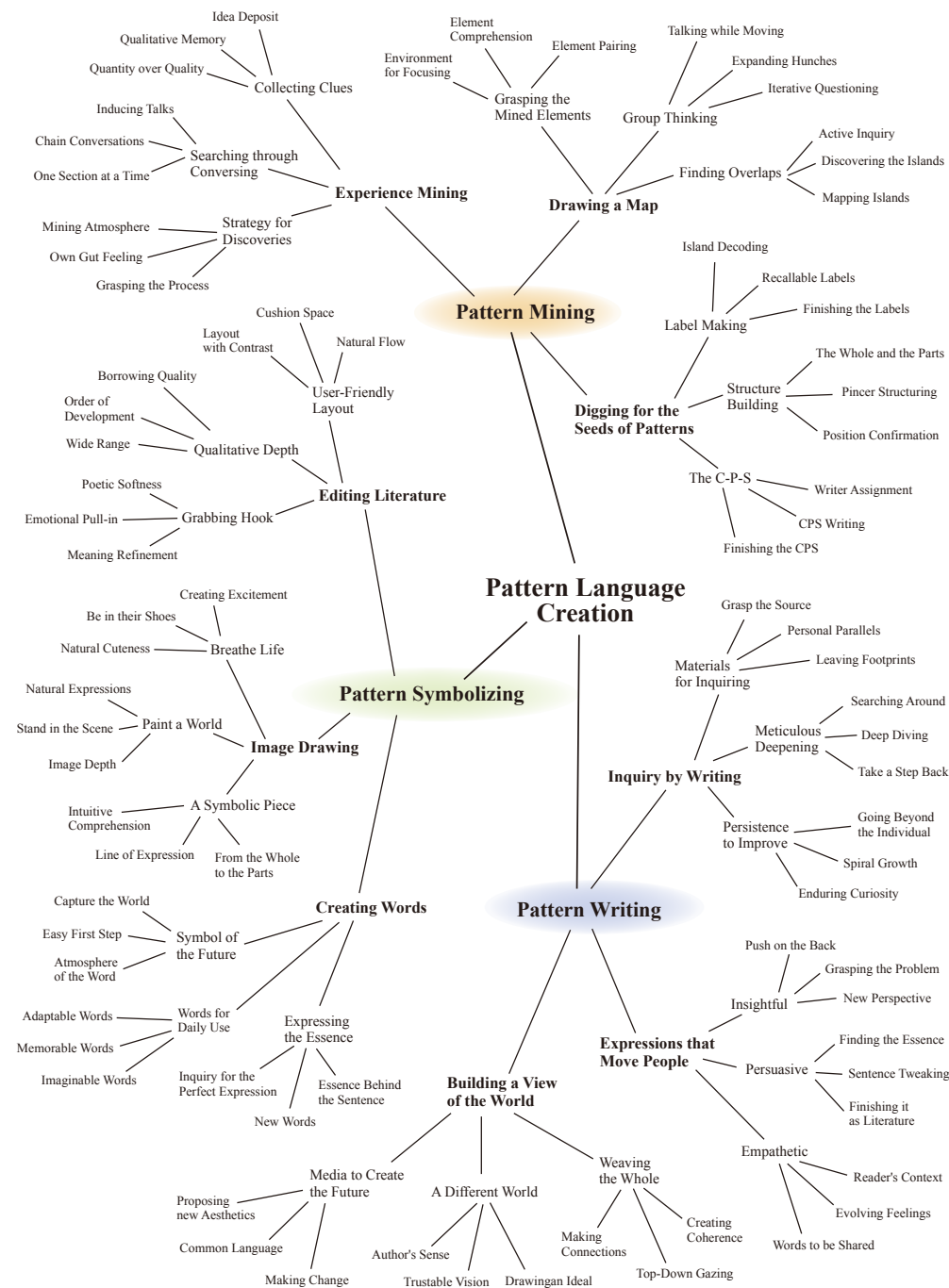# Music Composition Patterns

in collaboration with Takashi Watanabe

A Pattern Language for Touching Music
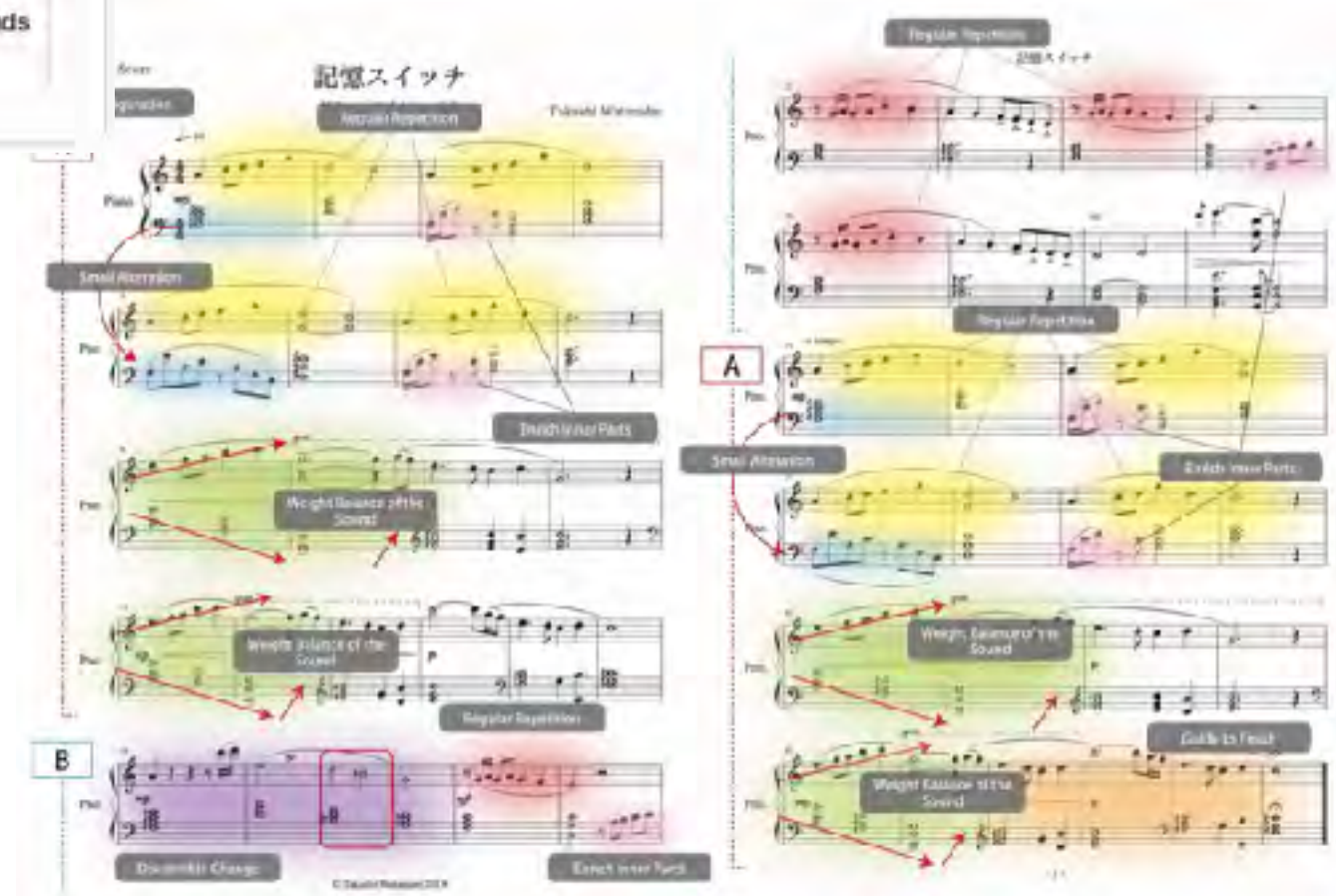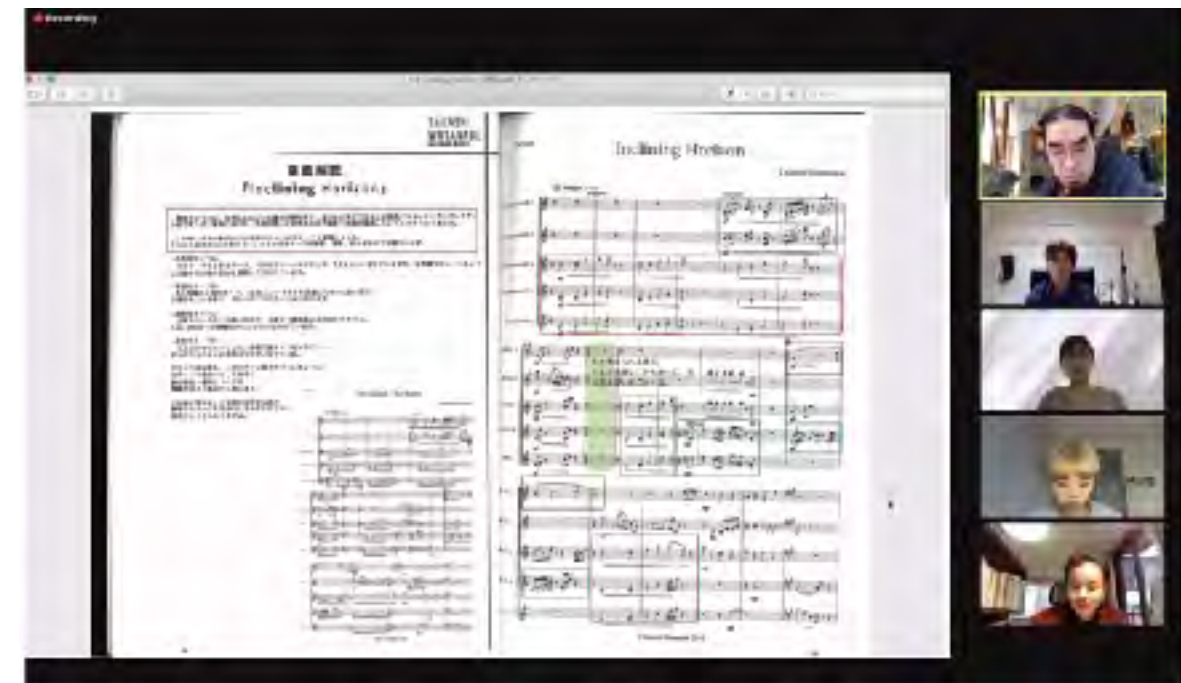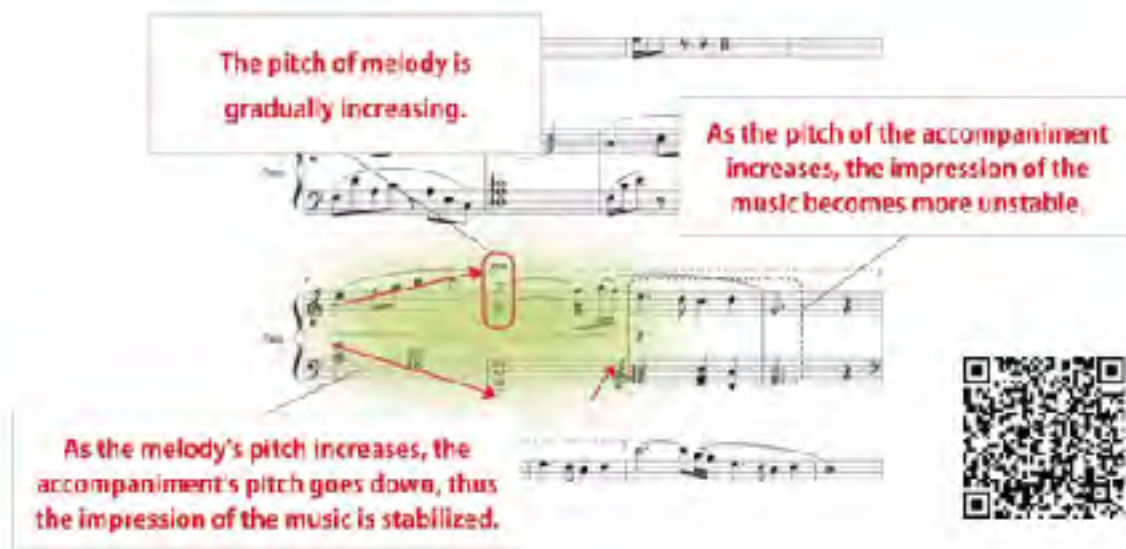
Ryohei Suzuki, Takashi Watanabe, Takashi Iba, "Music Composition Patterns: A Pattern Language for Touching Music," *25th European Conference on Pattern Languages of Programs (EuroPLop '22)*, 2022

A Pattern Language for Creating Pattern Languages

Takashi Iba, Taichi Isaku, "Creating a Pattern Language for Creating Pattern Languages: 364 Patterns for Pattern Mining, Writing, and Symbolizing," *PLoP '16: Proceedings of the 23rd Conference on Pattern Languages of Programs*, ACM, 2016

- **Education** (Iba, *et al.*, 2011; Iba & Utsunomiya, 2017)
- **Learning** (Iba, *et al.*, 2009; Iba & Iba Lab, 2014)
- **Collaboration** (Iba, *et al.*, 2013; Iba & Iba Lab, 2014)
- **Presentation** (Iba, *et al.*, 2012; Iba & Iba Lab, 2014)
- **Reading** (Iba, *et al.*, 2018)
- **Open Dialogue** (Iba *et al.*, 2017; Iba & Nagai, 2018)
- **Motivating Self-Improvement** (Burgoyne &Iba, 2017)
- **Life Transition** (Iba & Kubo, 2017)
- **Project Design** (Kubota *et al.*, 2016; Iba *et al.*, 2017)
- **School Design** (Iba *et al.*, 2015)
- **Workshop Design** (Iba, 2012; Akado *et al.*, 2015)
- **Middle Leader for Child Care** (Nozawa, *et al.*, 2018)
- *Omotenashi* **(Hospitality)** (Iba & Nakagawa, 2019)
- **Cooking** (Akado *et al.*, 2016; Yoshikawa *et al.*, 2018; Isaku & Iba, 2016)
- **Managing Everyday Life with Working and Parenting** (Ogo *et al.*, 2017)
- **Living Lively and Beautiful** (Arao *et al.*, 2012)
- **Natural Living - Ethical Lifestyle** (Kamada *et al.*, 2016)
- **Living well with Dementia** (Iba & Okada, 2015; Iba, *et al.*, 2016)
- **Social Entrepreneurship** (Shimomukai, *et al.*, 2012; Shimomukai, *et al.*, 2015)
- **Cross-Border Leadership** (Miura, *et al.*, 2016)
- **Public Policy Design** (Iba & Takenaka, 2017)
- **Surviving Earthquakes** (Furukawazono *et al.*, 2013; Furukawazono & Iba, 2015)
- **Conservation of Ecosystem** (Kamada *et al.*, 2018)

.....

+ about 400 meta-patterns

Pattern Languages **empower people to create** things they desire to create, and enables them to participate in creative activities in various domains.

Building school
School Design
Workplace Design
Managing Preschool
Reading
Education
Project Design
Learning
Instruction for business people
Inquiry [for students]
Presentation
Collaboration
Life Transition
Open Dialogue
Working and Parenting
Cooking
Music Composition
Living Lively and Beautiful

Environment design for the elderly
Public Policy Design
Social Entrepreneurship
Cross-Border Leadership
Surviving Earthquakes
Organizational Design
Management
Empathetic Marketing
Conservation of Ecosystem
Hospitality
Natural Living
Employment of disable people
Living well with Dementia
End-of-life care

We've created **80+ pattern languages** in various domain including **2,400+ patterns** for past 20 years.

From the creativity viewpoint, it can be said that this ability to step into various creative activities is a new kind of `**freedom**'. It can be said that pattern language is **a tool to enhance people's creative 'freedom'**.
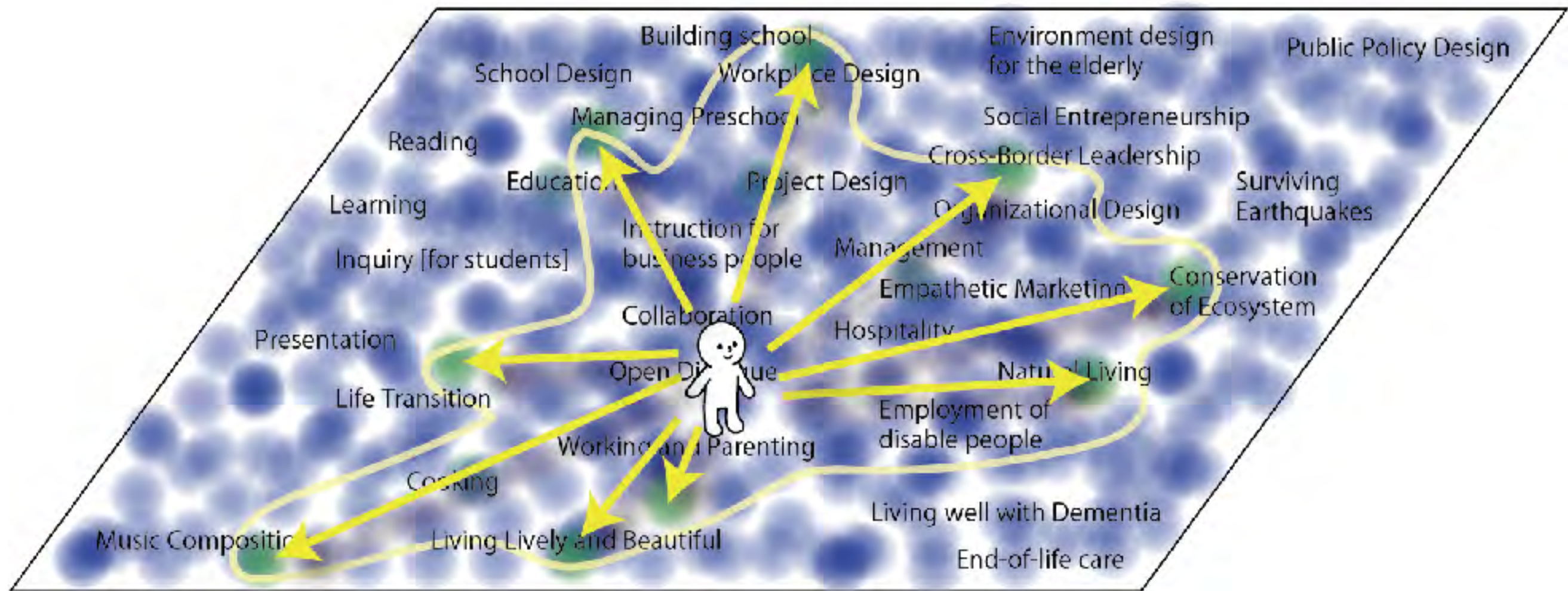
In this sense, Pattern Languages can be considered as a *soft social infrastructure* in the Creative Society.

THE ORIGINS OF PATTERN THEORY, THE FUTURE OF THE THEORY, AND THE GENERATION OF A LIVING WORLD

Keynote Speech to the 1996 OOPSLA Convention
By Christopher Alexander

"I want you to help me. ...

I hope that all of you, as members of a great profession of the future, will decide to help me, and to help yourselves, by taking part in this enormous worldwide effort. I do think you are capable of it. And I do not think any other professional body has quite the ability, or the natural opportunity for influence, to do this job as it must be done."

https://ieeexplore.ieee.org/abstract/document/795104

https://www.youtube.com/watch?v=98LdFA-_zfA

Pattern Language

A system of words describing generative rules for good designs or good rules of thumb (common patterns in various cases) in a certain domain, for sharing the practical knowledge with others to support achieving good results in their practice.

Knack, Hang (コツ, *Kotsu*) in Practices

in Japanese

"コツ"(*Kotsu*) = "骨" (bone)

Internal structure that makes the practice good

Each patterns specifies and describes knack (hang), namely "コツ" (*Kotsu), and language as a whole provide a whole body of the practice.*

People who produce the good quality in their practice

practice

practice

practice

practice

practice

what is important to do, how to do it, and why it is important

Pattern
(Rules of Thumb)

what is important to do, how to do it, and why it is important

Pattern
(Rules of Thumb)

what is important to do, how to do it, and why it is important
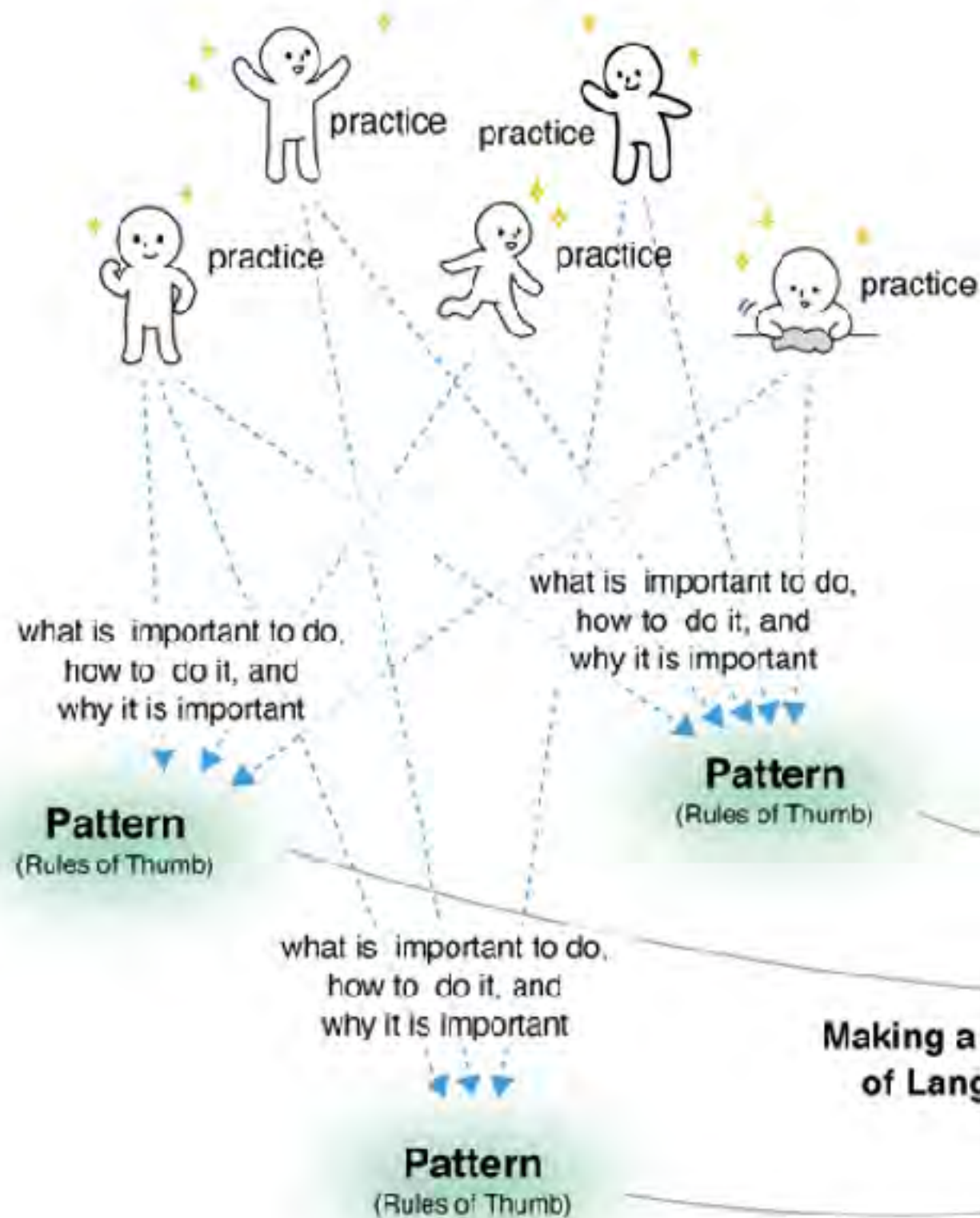
Pattern
(Rules of Thumb)
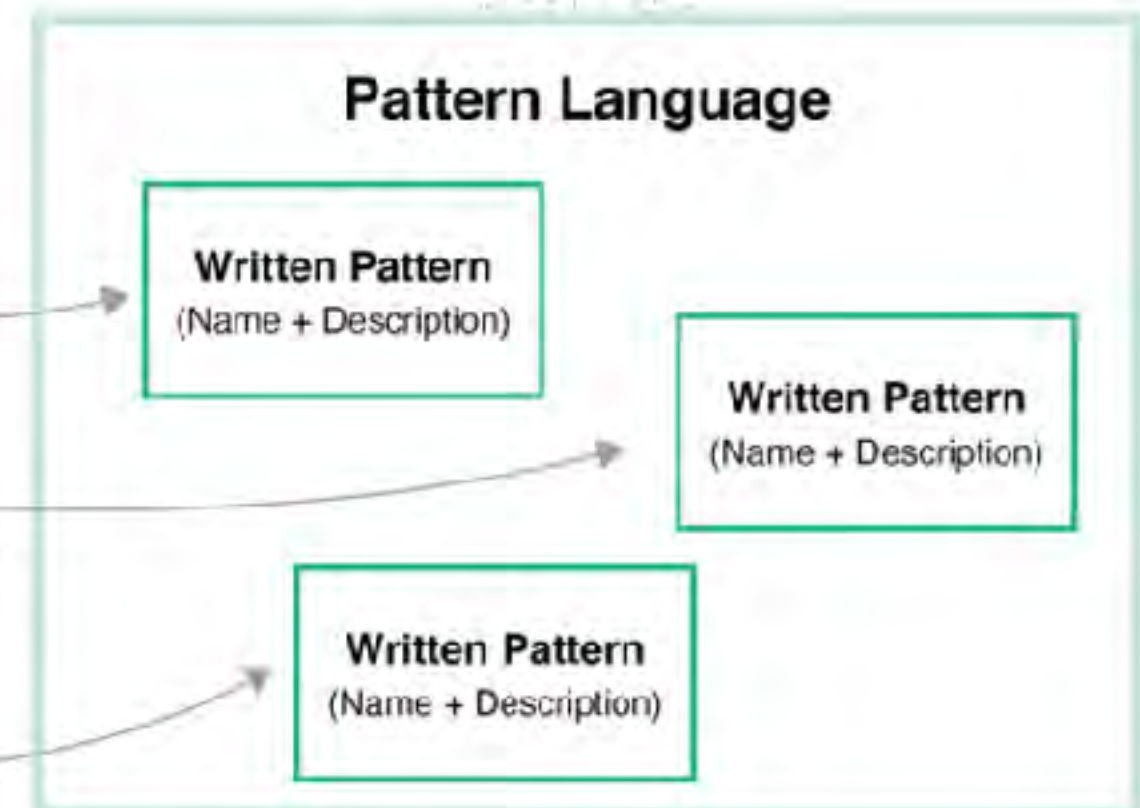
Making a System of Language

Those who don't

Support to practice, communication, and recognition

Pattern Language

Written Pattern
(Name + Description)

Written Pattern
(Name + Description)

Written Pattern
(Name + Description)

Pattern Languages share …

1. Fundamental *'kata'* of the practice

2. Ways the positive deviance did

3. Good practices somebody obtained by trial and error

How to Create
a Pattern Language

Creation Process of a Pattern Language Ver. 2022

Developed by Takashi Iba & Iba Lab, 2008~

Pattern Symbolizing

Flowers

A Forrest

Complete!

Pattern Naming

Introducion Writing

Pattern Illustrating

Confirmation Dialog

Pattern Writing

Trunks, Branches & Leaves, Trees

User Test

Practice Area Determination

CPS Writing

Full Description Writing

Full Description Improvement

Re-Systematization

Full Description Finishing

Writers' Workshop

Confirmation Dialog

Many Times

Practitioners' Review Dialog

Pattern Mining

Ground, Seeds, Roots

Mining Targets Selection

Mining Dialog

Pattern Materials Extraction

Clustering

Pattern Ingredients Writing

Systematization

Pattern Seeds Writing

Practitioners' Review Dialog

Confirmation Dialog

Creation Process of a Pattern Language Ver. 2022

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A Forrest

Complete!

Pattern Symbolizing

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Full Description Writing

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Pattern Materials Extraction

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Pattern Ingredients Writing

Systematization

Pattern Seeds Writing

Creation Process of a Pattern Language Ver. 2022

Developed by Takashi Iba & Iba Lab, 2008~

Pattern Symbolizing

Flowers

- Pattern Naming
- Introducion Writing
- Pattern Illustrating

Pattern Writing

Trunks, Branches & Leaves, Trees

- Practice Area Determination
- CPS Writing
- Full Description Writing
- Full Description Improvement
- Re-Systematization
- Full Description Finishing

A Forrest

Complete!

Pattern Mining

Ground, Seeds, Roots

- Mining Targets Selection
- Mining Dialog
- Pattern Materials Extraction
- Clustering
- Pattern Ingredients Writing
- Systematization
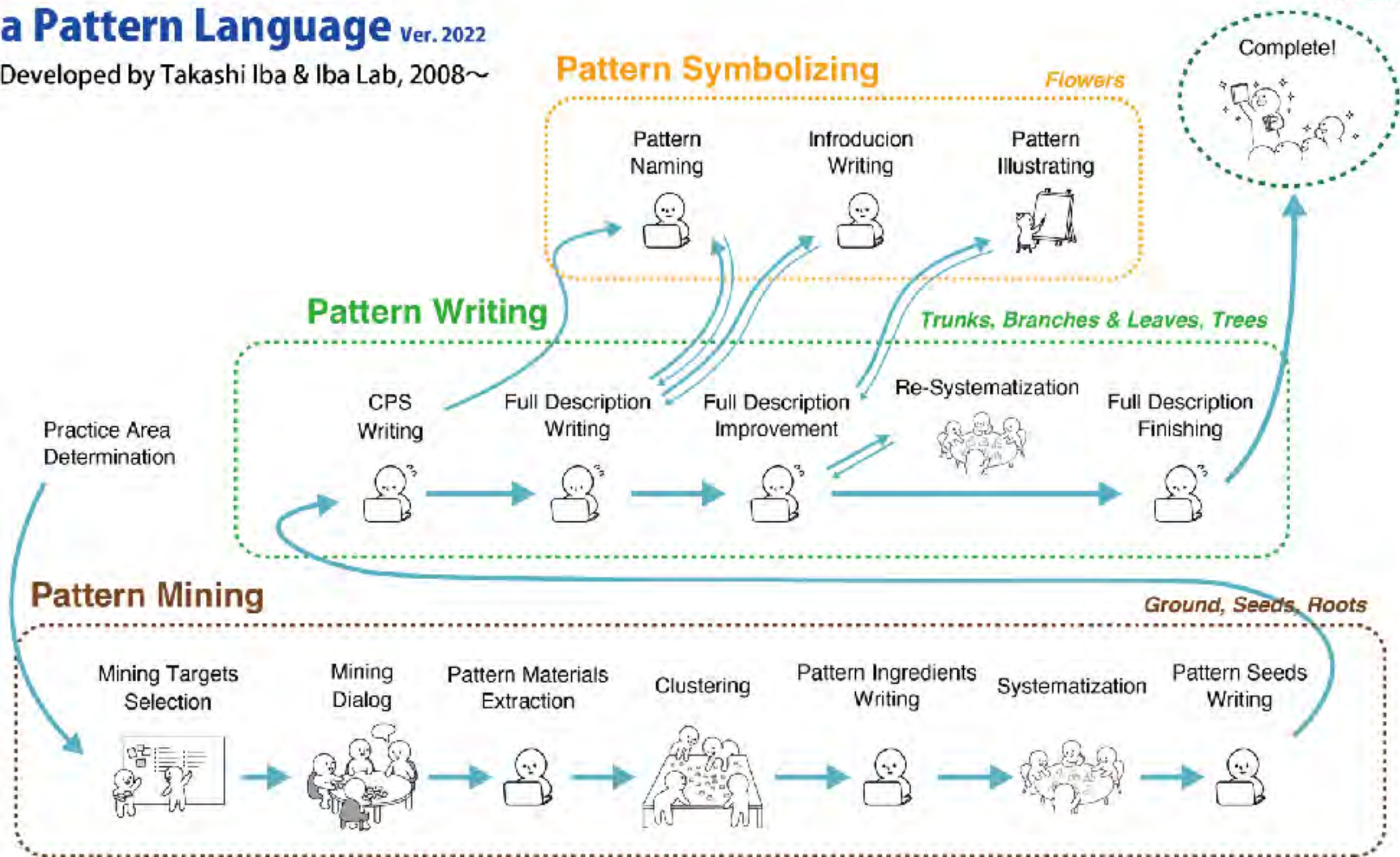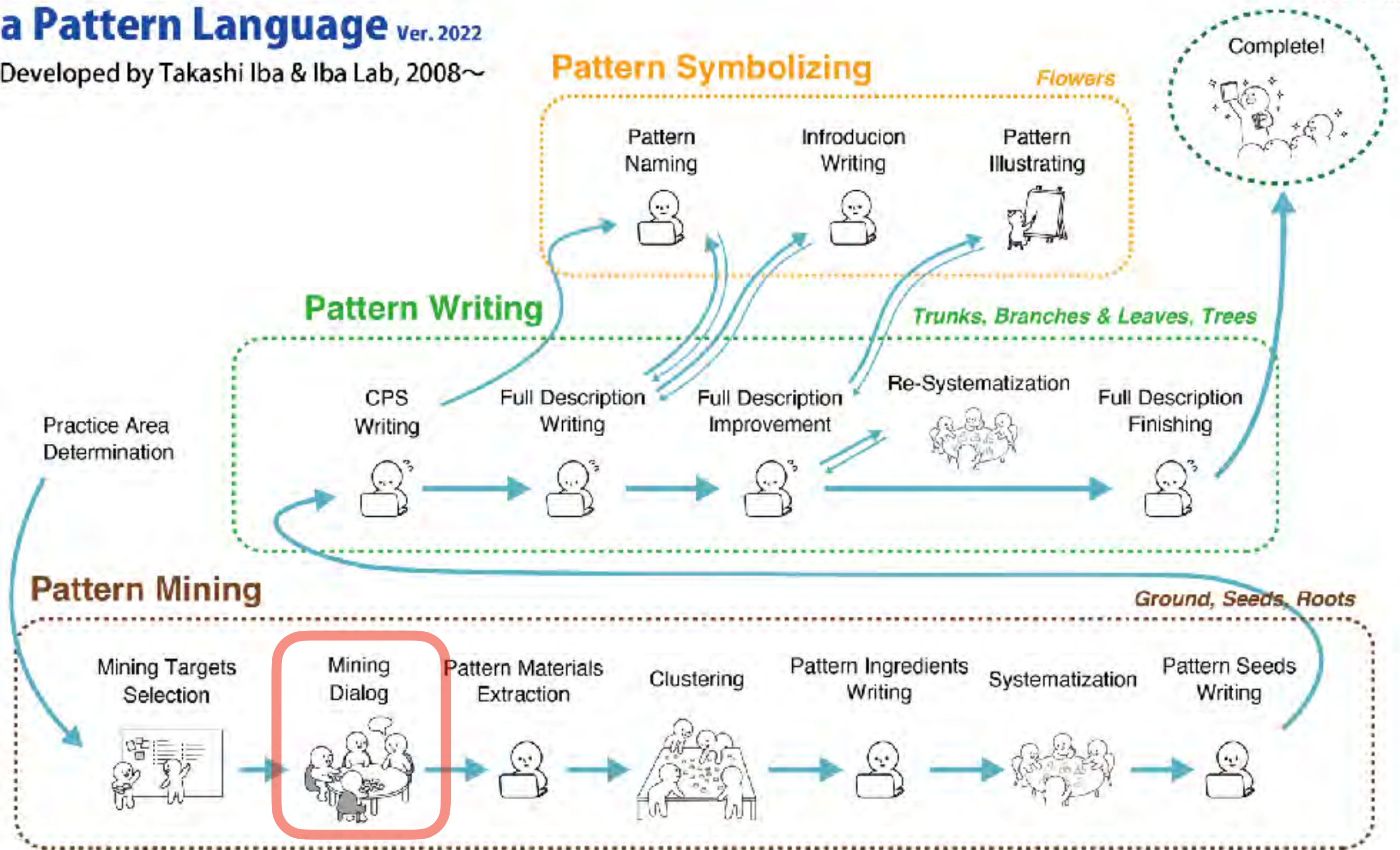- Pattern Seeds Writing

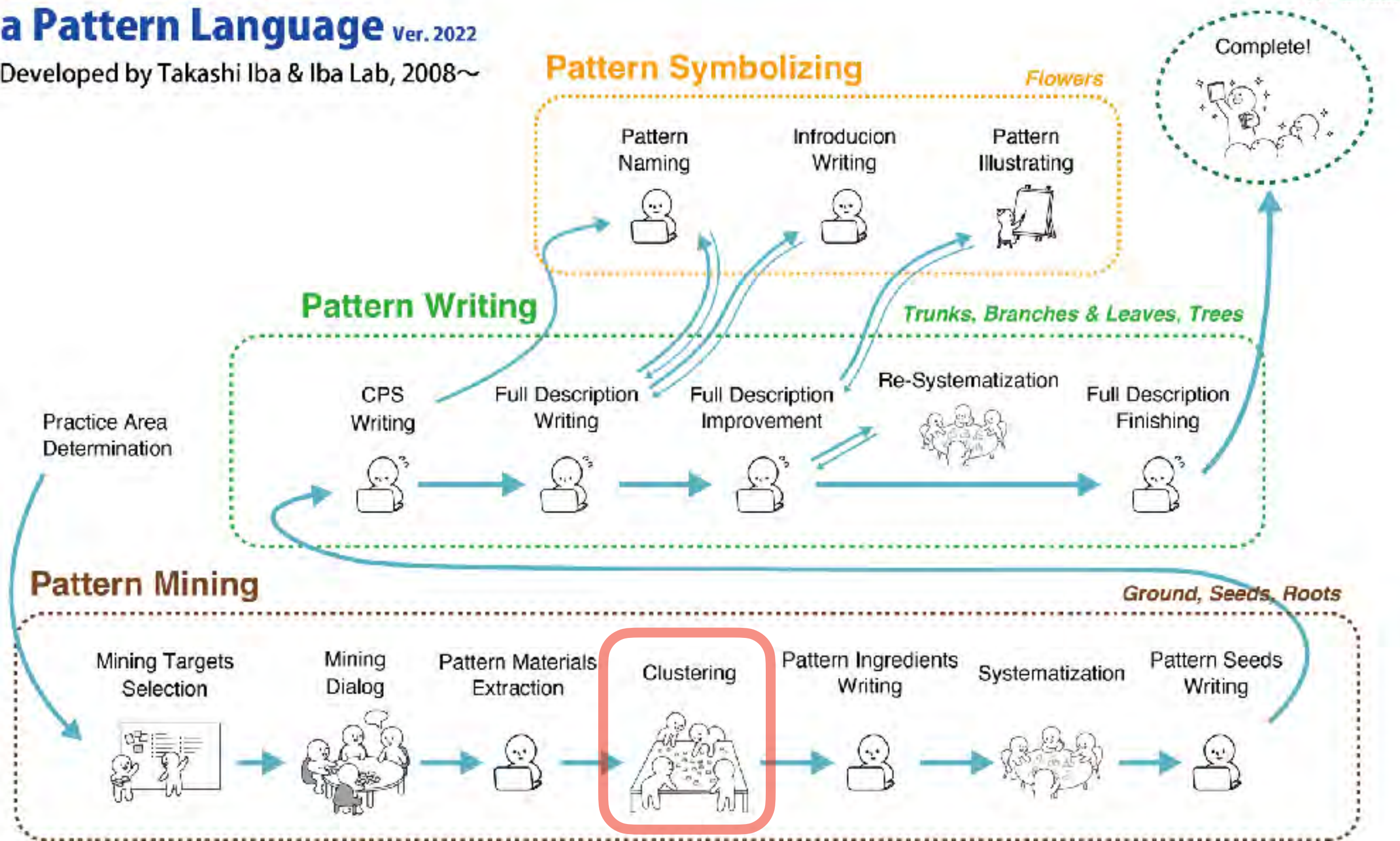**Mining Dialog in Pattern Mining**

Pattern Materials

Creation Process of a Pattern Language Ver. 2022

Developed by Takashi Iba & Iba Lab, 2008~

A Forrest

Complete!

Pattern Symbolizing

Flowers

Pattern Naming

Introducion Writing

Pattern Illustrating

Pattern Writing

Trunks, Branches & Leaves, Trees

CPS Writing

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Full Description Finishing

Practice Area Determination

Pattern Mining

Ground, Seeds, Roots

Mining Targets Selection

Mining Dialog

Pattern Materials Extraction

Clustering

Pattern Ingredients Writing

Systematization

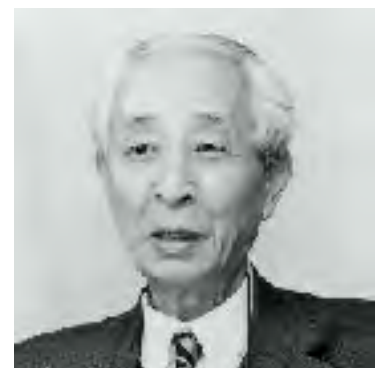Pattern Seeds Writing

Clustering in Pattern Mining

Clustering with KJ Method

- invented by Japanese Anthropologist **K**awakita, **J**iro (hence the name)

- NOT a process of *categorization* (into existing categories), but rather a **bottom-up process of discovering *new* categories** of classifying information

- "genuinely listen to the essence of what each piece of paper is saying. Cluster them based on the affinity of their essential meaning. They should not be clustered based on resemblance of what they superficially look like" (Kawakita, 1970)

  Jiro Kawakita, *Zoku Hassouho: KJ-ho no Tenkai to Ouyo [Abuduction Method, Continued: Evolution and Application of KJ method]*, in Japanese, Chuokoronsha, 1970

- The **physical distance** between two notes should represent their **closeness in meaning** of these ideas

○Takashi Iba, Ayaka Yoshikawa, Konomi Munakata, "Philosophy and methodology of clustering in pattern mining: Japanese anthropologist Jiro Kawakita's KJ method,"PLoP '17: *Proceedings of the 24th Conference on Pattern Languages of Programs*, ACM, 2017
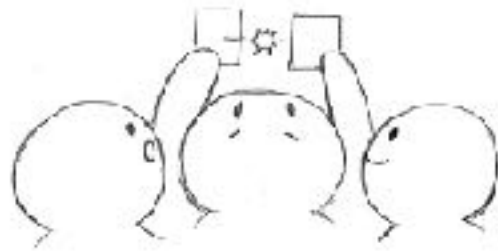
Clustering with KJ Method

Starting from Chaos
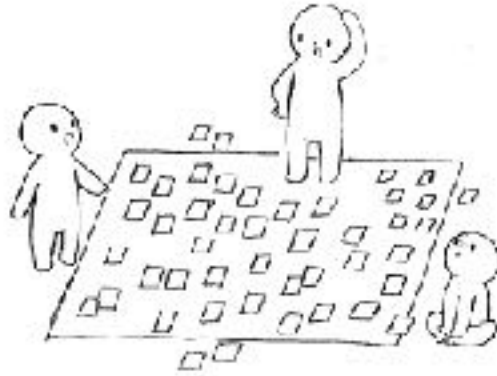
The KJ-method is a slow process: resist the urge to introduce categories, axes, etc for a quick solution. Observe as order emerge throughout the process.

One to One Comparison

Elements must be considered on a one-to-one relationship: potential categories shall not be thought of.

Hidden Meanings

Be aware of the two possible results when grouping patterns: Grouping them could either a) abstract the idea to blur its meaning, or b) strengthen e/o by highlighting aspects that may be hidden as a single idea.

Takashi Iba, Taichi Isaku, "Creating a Pattern Language for Creating Pattern Languages: 364 Patterns for Pattern Mining, Writing, and Symbolizing," *PLoP '16: Proceedings of the 23rd Conference on Pattern Languages of Programs*, ACM, 2016

Clustering with KJ Method
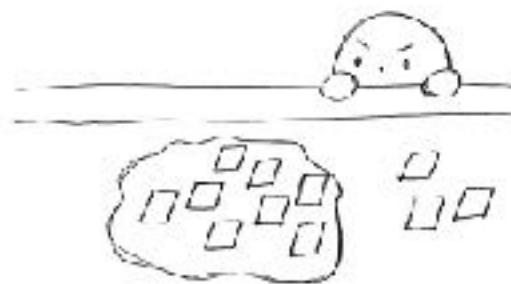
Talking while Moving

The KJ method is a collaborative process: always consult with your group members when you think an element should be moved.

Discovering Islands

Once you have the feeling that all of the elements are "in the correct place," lightly circle around each cluster to cut out potential groupings for patterns.
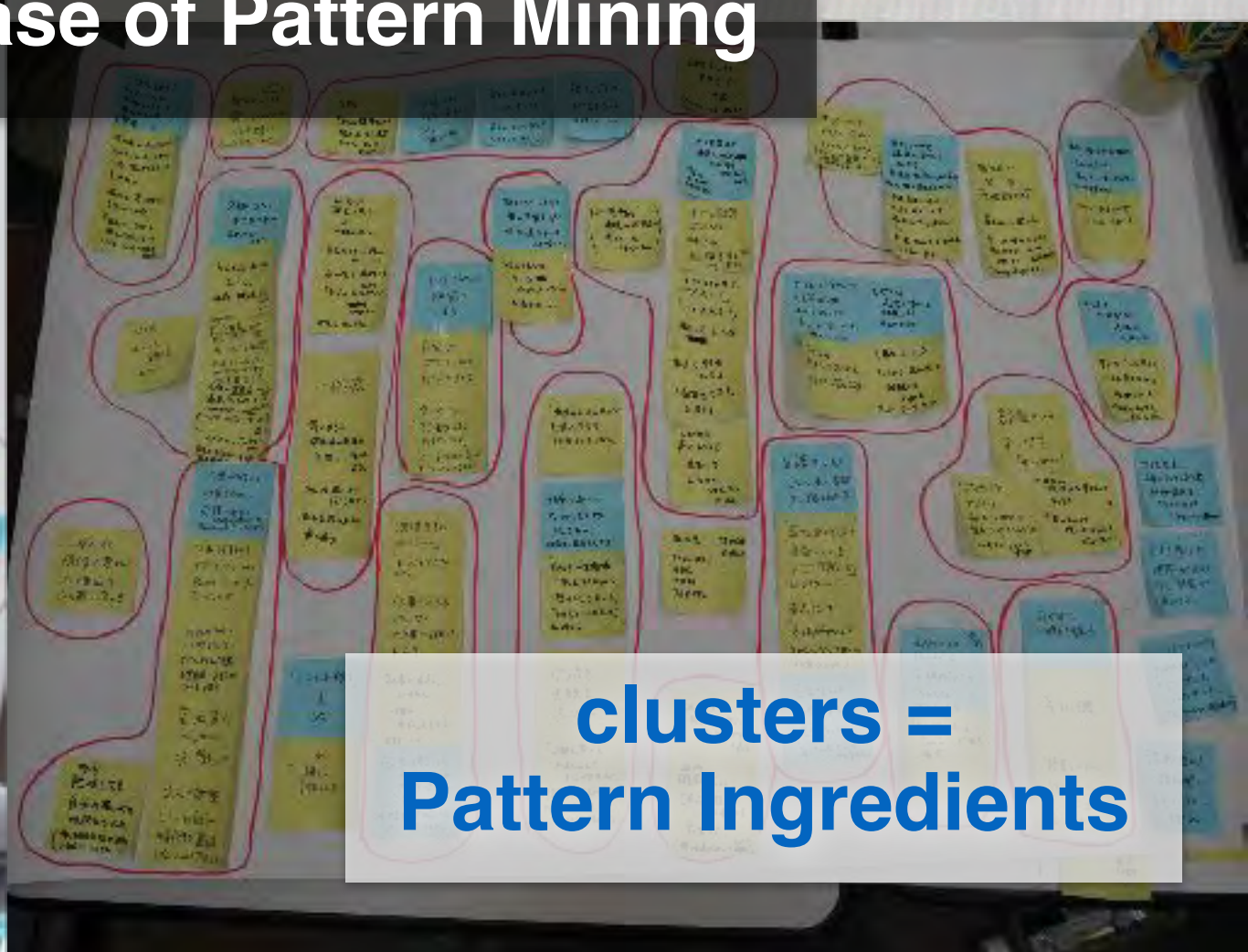
Doubting Clusters

Once clusters start to formate, take the chance to reconsider each of the groups: some groups may convey their message when broken up into smaller clusters. Do not be afraid to reorganize already-formed clusters.
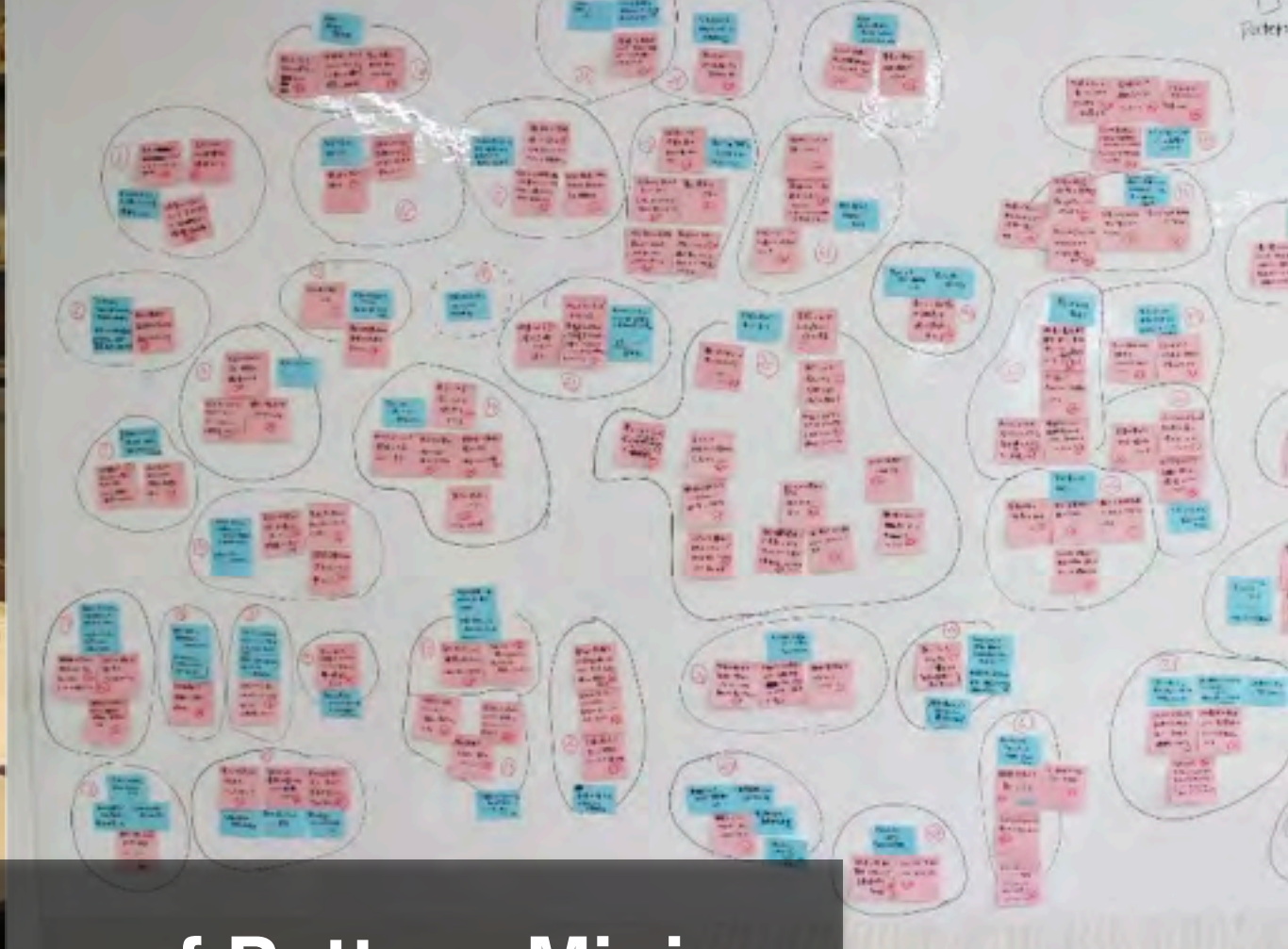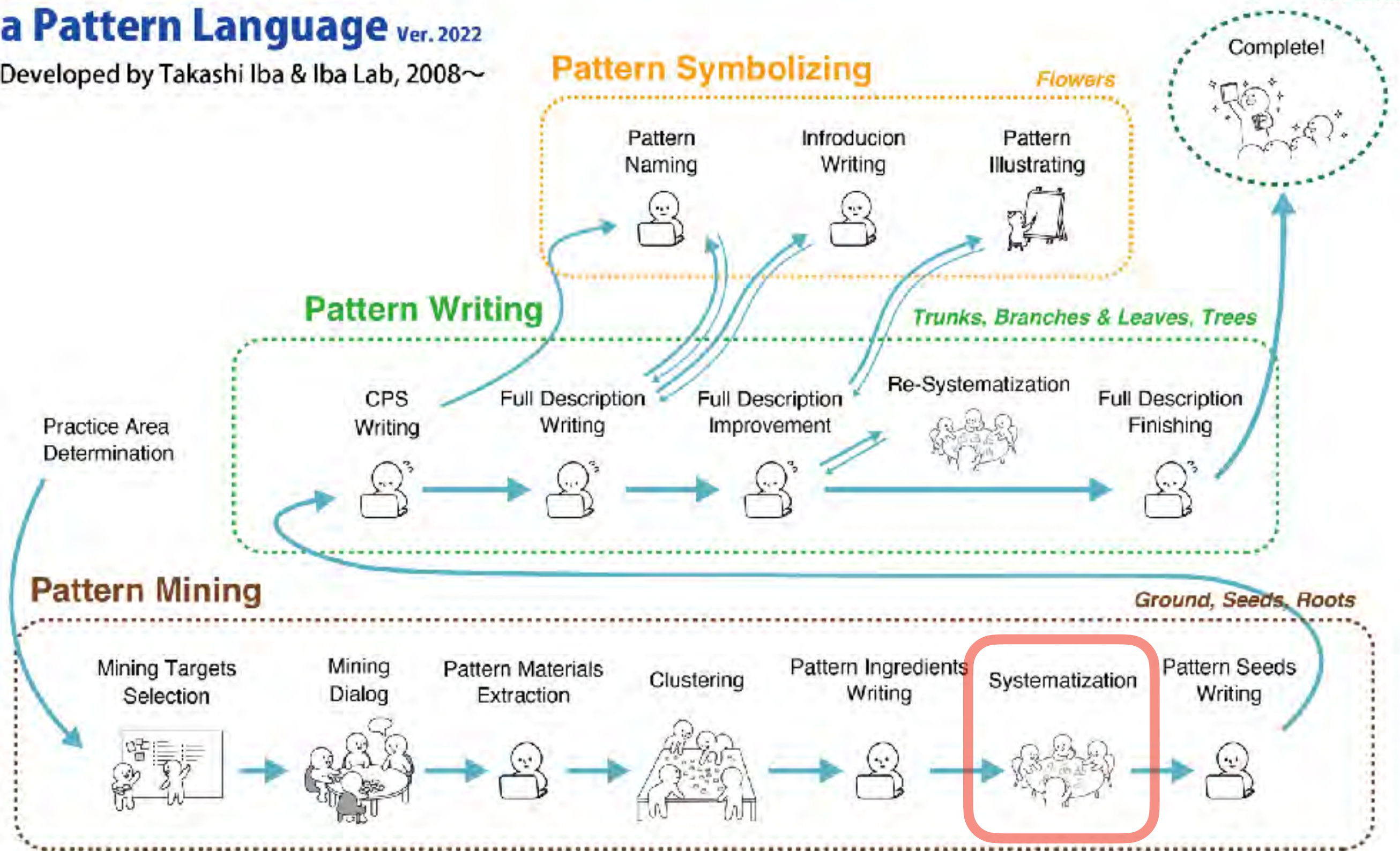
Clustering in the phase of Pattern Mining

**clusters =
Pattern Ingredients**

Creation Process of a Pattern Language Ver. 2022
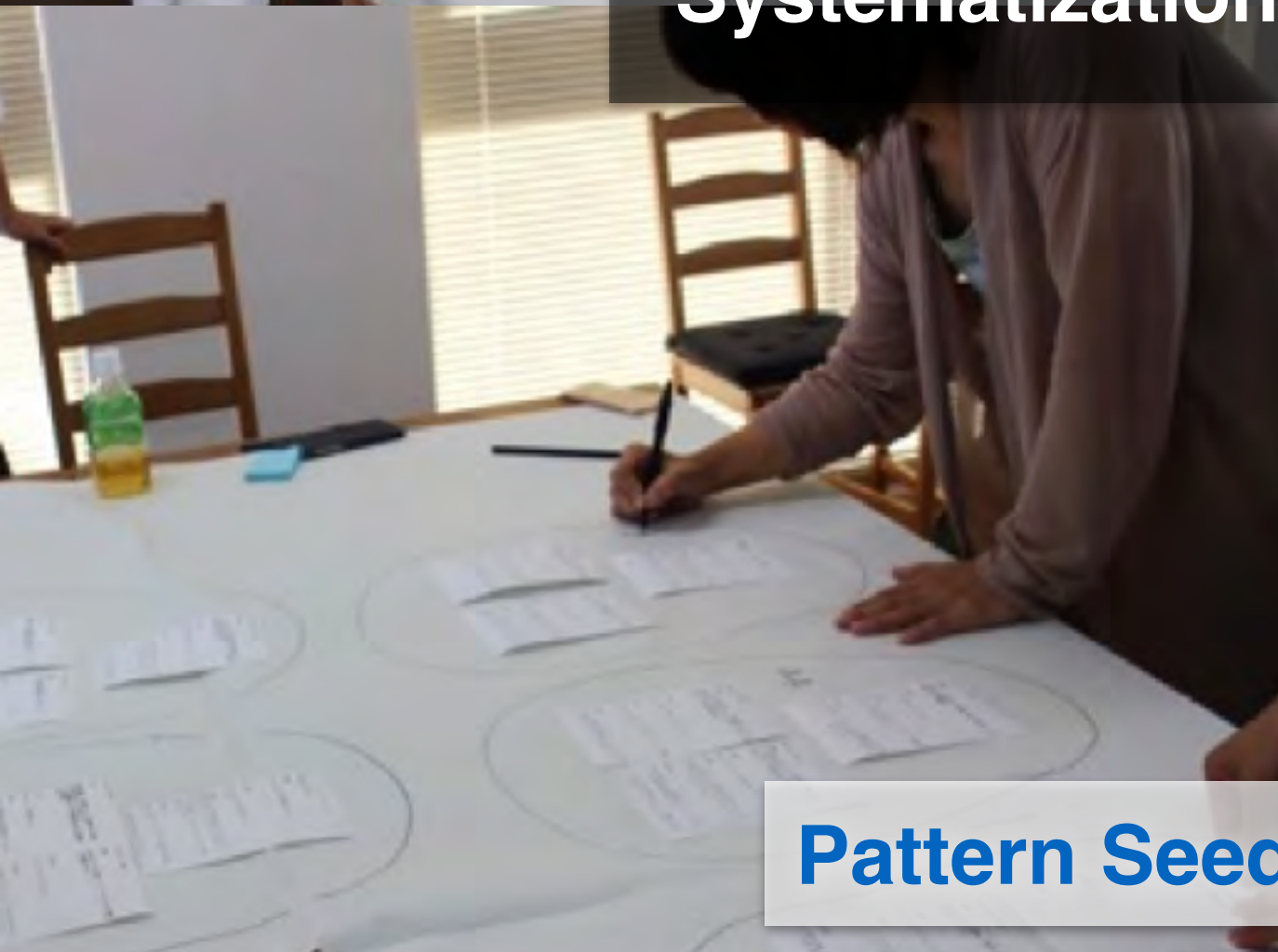
Developed by Takashi Iba & Iba Lab, 2008~

Pattern Symbolizing

Flowers

- Pattern Naming
- Introducion Writing
- Pattern Illustrating

A Forrest

Complete!

Pattern Writing

Trunks, Branches & Leaves, Trees

Practice Area Determination

- CPS Writing
- Full Description Writing
- Full Description Improvement
- Re-Systematization
- Full Description Finishing

Pattern Mining

Ground, Seeds, Roots

- Mining Targets Selection
- Mining Dialog
- Pattern Materials Extraction
- Clustering
- Pattern Ingredients Writing
- Systematization
- Pattern Seeds Writing

Systematization in Pattern Mining

Pattern Seeds
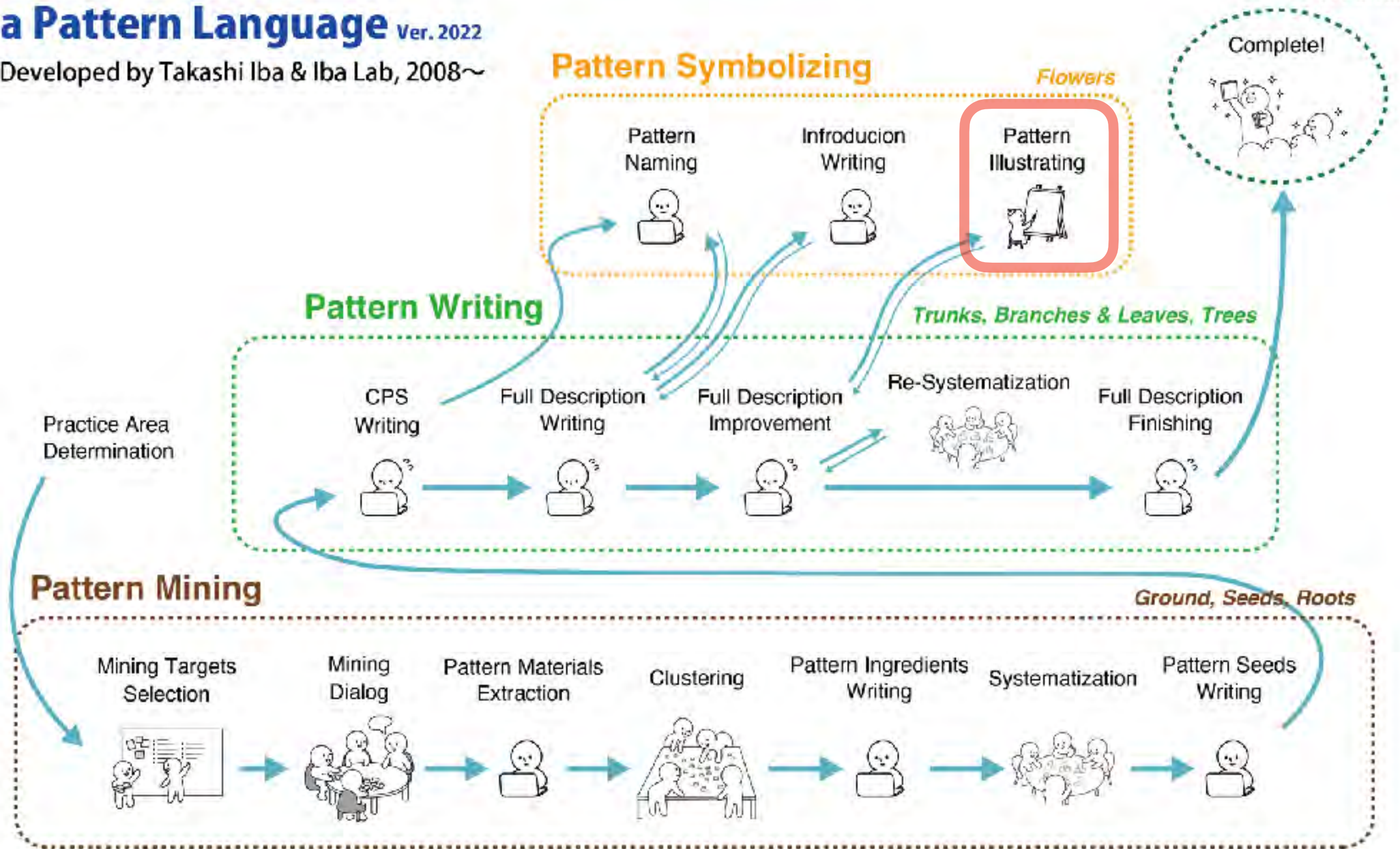
Creation Process of a Pattern Language Ver. 2022

Developed by Takashi Iba & Iba Lab, 2008〜

Pattern Symbolizing
Flowers

Pattern Naming

Introducion Writing

Pattern Illustrating

Confirmation Dialog

A Forrest

Complete!

Pattern Writing
Trunks, Branches & Leaves, Trees

Practice Area Determination

CPS Writing

Full Description Writing

Full Description Improvement

Many Times

Confirmation Dialog

Re-Systematization

Practitioners' Review Dialog

Full Description Finishing

User Test

Writers' Workshop

Pattern Mining
Ground, Seeds, Roots

Mining Targets Selection

Mining Dialog

Pattern Materials Extraction

Clustering

Pattern Ingredients Writing

Systematization

Pattern Seeds Writing

Confirmation Dialog

Practitioners' Review Dialog

Confirmation Dialogs in Pattern Writing

Creation Process of a Pattern Language Ver. 2022

Developed by Takashi Iba & Iba Lab, 2008~

Pattern Symbolizing

Flowers

A Forrest

Complete!

Pattern Naming

Introducion Writing

Pattern Illustrating

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Pattern Illustrating in Pattern Symbolizing

Pattern Illustrating in Pattern Symbolizing
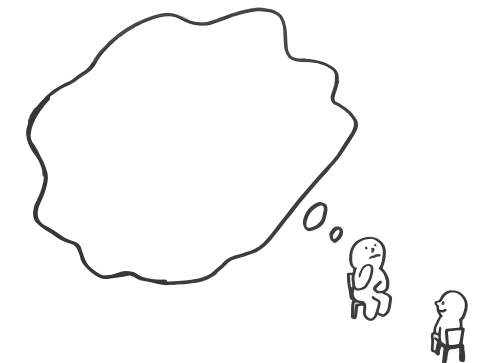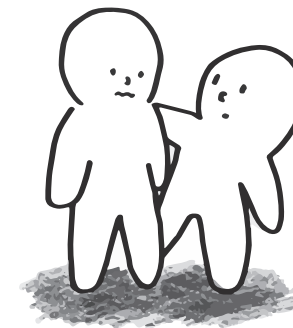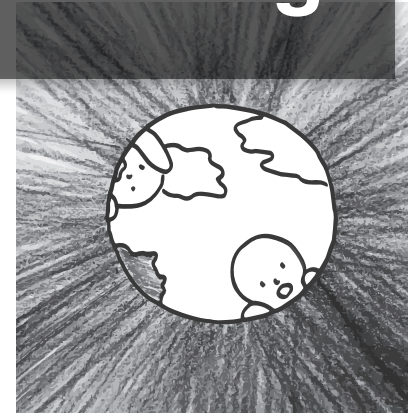
Visualizing the essence of the pattern with attractive and touching expression

Principles of Pattern Illustration Design

analyzed more than 600 pattern illustrations
for our 19 pattern languages

found 12 principles containing 117 pattern seeds

3.4 Time Flow from Left to Right

In principle, the temporal order of events that occur in the illustration is from left to right. Because sentences in the patterns flow from left to right, readers tend to interpret the illustrations following the same flow. In the same way that occurs when writing sentences in English, time also flows from left to right in the illustration. These principles are our guiding principles for drawing pattern illustrations

Figure 35: Example Illustrations of *From Left to Right* (Time Flow from Left to Right)
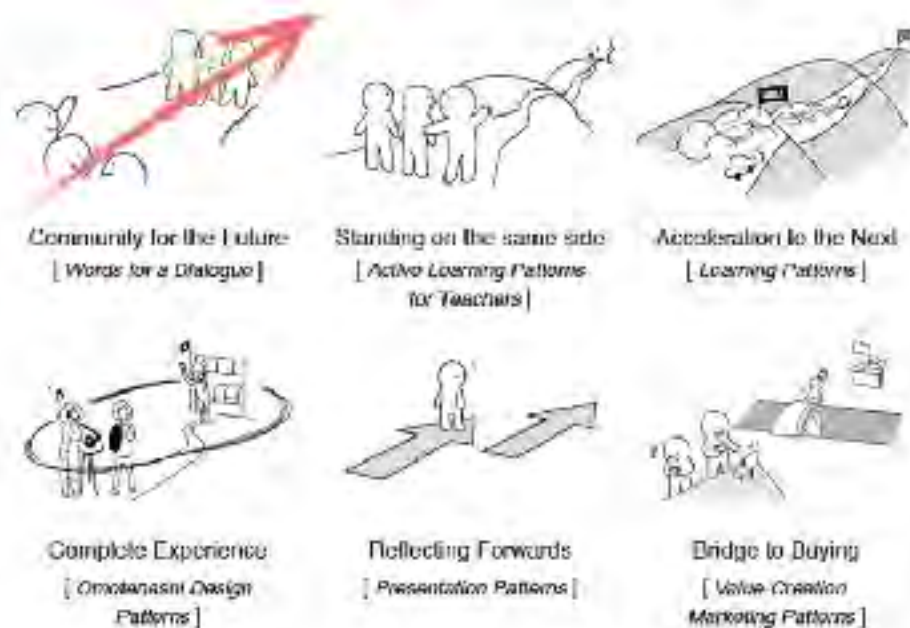
Figure 34: Example Illustrations of *The Road to the Far Right* (Time Flow from Left to Right)
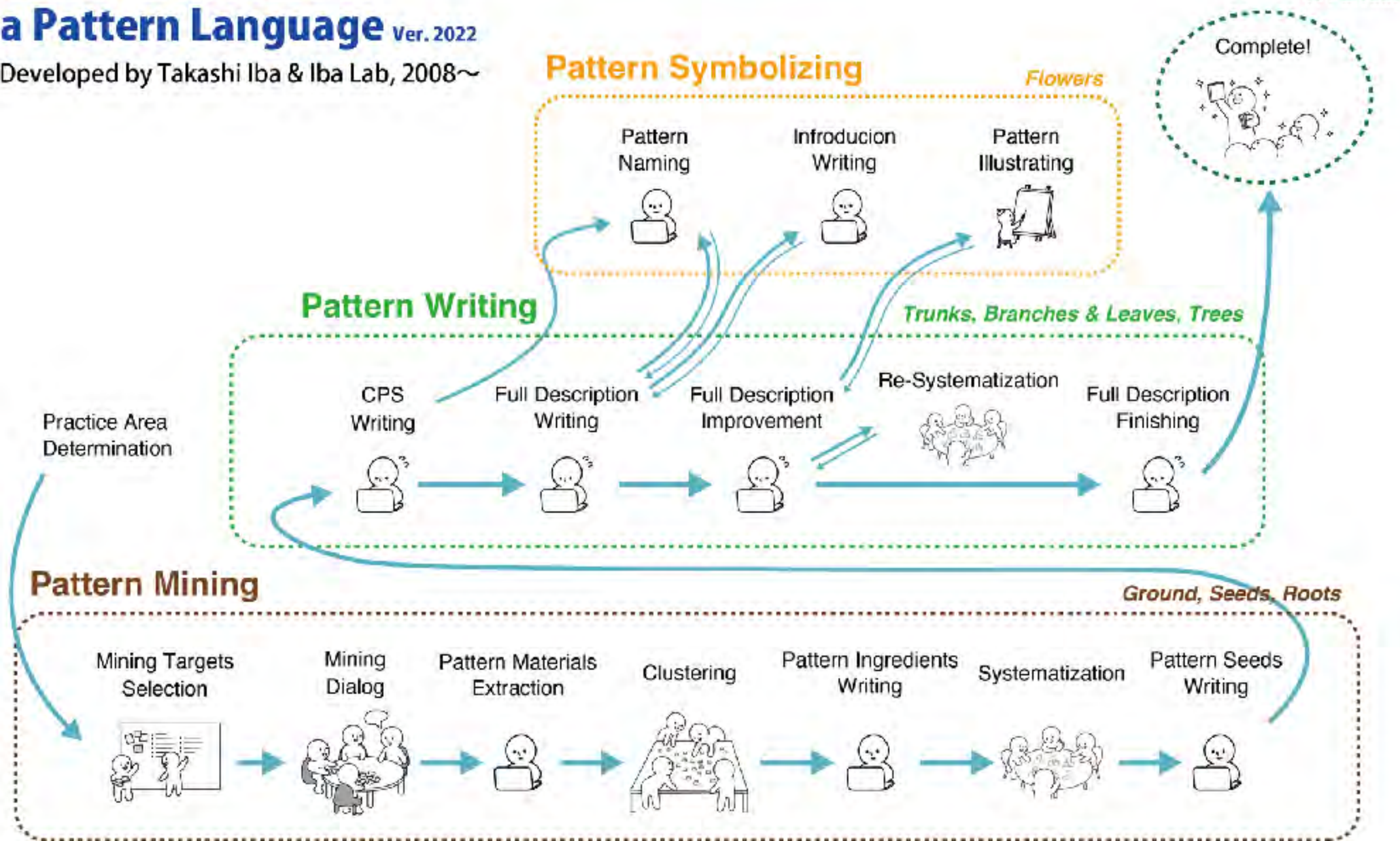
Figure 37: Example Illustrations of *Looking Back on the Past on the Left* (Time Flow from Left to Right)

Takashi Iba, Yuka Banno, Hinako Ando, "Principles of Pattern Illustration Design," *EuroPLoP'21: 26th European Conference on Pattern Languages of Programs,* ACM, 2021

Creation Process of a Pattern Language Ver. 2022

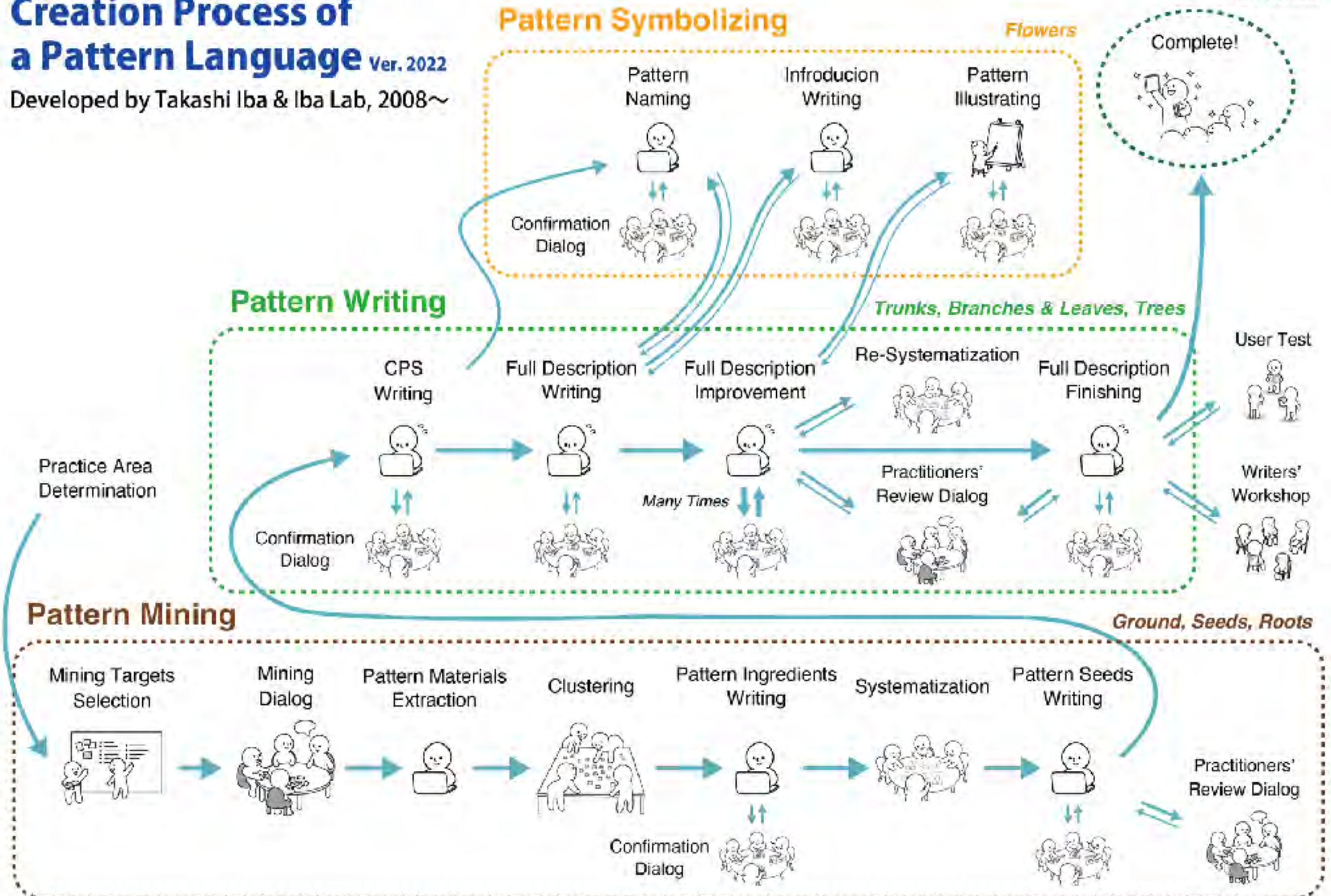Developed by Takashi Iba & Iba Lab, 2008~

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Transcript of Mining Interview

Patterns

| Interview #1 | Interview #2 | Interview #3 | Lecture | Feedback | Patterns |

1. Project Design Principles
2. Become a Real Customer
3. Direct Sourcing
4. On the Spot Feeling
5. Chance Taker
6. Personal Stock of Resources
7. Proto-Planning
8. Imagination Gap
9. Studying Not-So-Good Cases
10. Nutritious Information
11. Undiscovered Wants
12. Forgotten Potentials
13. Idea Coupling
14. Thorough Listing
15. Interactive Scoring
16. Graduated Consultations
17. Room for Commitment
18. Thinking with Reality
19. Unearth the Reason
20. Fundamental Values
21. Approach Search
22. Points of Play
23. Killer Pitch
24. Review in their Shoes
25. Incorporating the Future
26. Expansion of Interests
27. Combination of Strengths
28. Three Role Models
29. Empathetic Partners
30. Flat Collaboration
31. Professional Opinion
32. Pleasant Memories

PROJECT DESIGN PATTERNS

Creation Process of a Pattern Language Ver. 2022

Developed by Takashi Iba & Iba Lab, 2008~

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Pattern Writing Sheet for helping new writers to write their patterns

○Takashi Iba, "A Journey on the Way to Pattern Writing: Designing the Pattern Writing Sheet," *Hillside Proceedings of the 21st Conference on Pattern Languages of Programs*, 2014
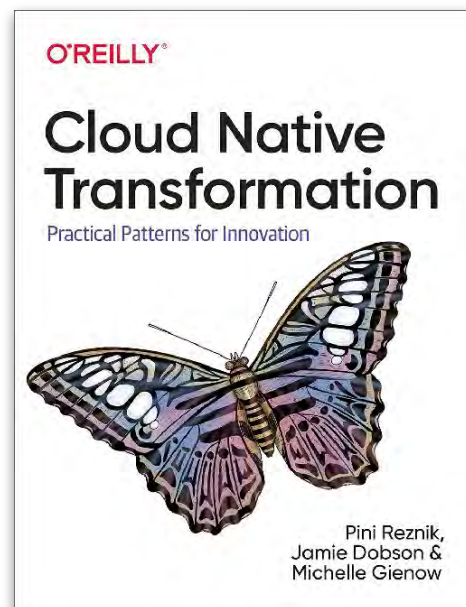
Pini Reznik, Jamie Dobson, Michelle Gienow, *Cloud Native Transformation*. O'Reilly Media, 2019

"As an aid to envisioning and articulating patterns, **Iba also created a Pattern Writing Sheet,** which he has made freely available under Creative Commons licensing. Figure 3-1 shows the template, which contains instructions for identifying elements of a pattern and spaces for defining the Context, Forces, Solution, and so on."
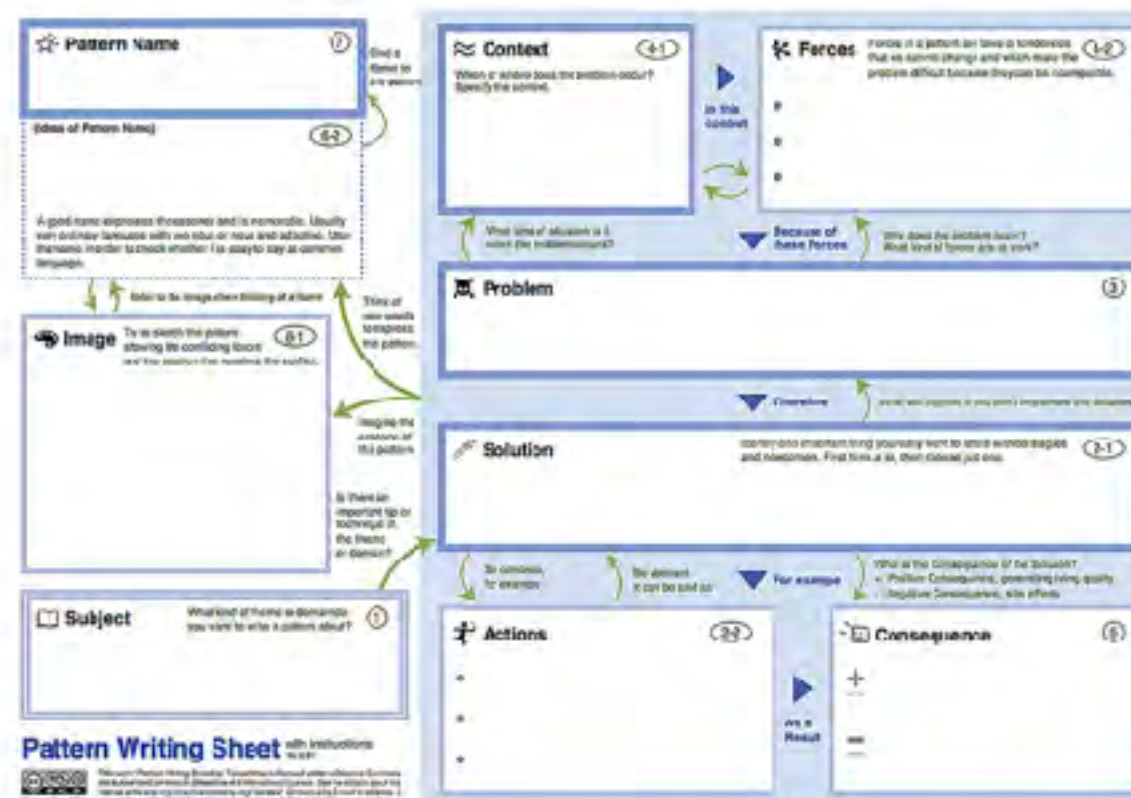
Figure 3-1. Takashi Iba's Pattern Writing Sheet

Pini Reznik, Jamie Dobson, Michelle Gienow, *Cloud Native Transformation*. O'Reilly Media, 2019

Naomi Stanford, *Designing Organisations*, Economist Books, 2022
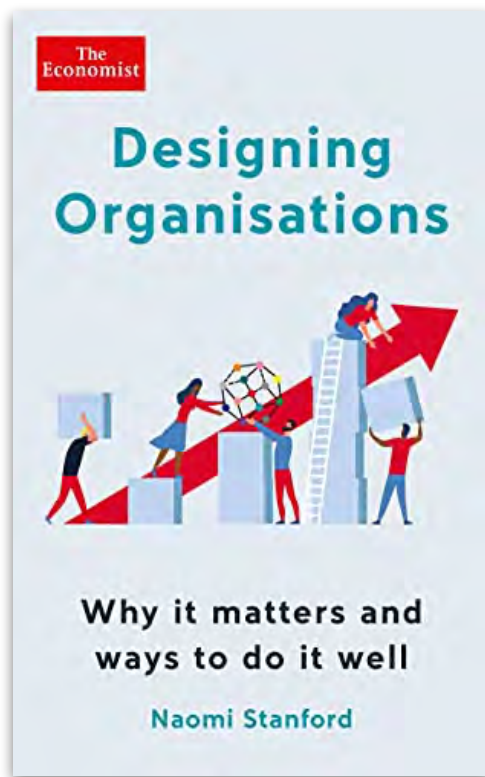
Takashi Iba, professor of policy management at Keio University in Japan, has taken this a step further, supporting the creation of many hundreds of patterns in different fields of activity."

Takashi Iba offers a template that helps with pattern recognition (shown in Figure 5.1).

FIGURE 5.1 **Pattern writing sheet** for helping new writers to write their patterns

Source: T. Iba, "A journey on the way to pattern writing designing the pattern writing sheet", in the *21st Conference on Pattern Languages of Programs, 2014*

Naomi Stanford, *Designing Organisations*, Economist Books, 2022

Pattern Writing Sheet for helping new writers to write their patterns

⭐ **Pattern Name** ⑦

Give a Name to this pattern

(Ideas of Pattern Name) 6-2

A good name expresses the essence and is memorable. Usually very ordinary language with two nous or nous and adjective. Utter the name in order to check whether it is easy to say as common language.

Refer to the image when thinking of a Name

🎨 **Image** 6-1
Try to sketch the pattern showing the conflicting forces and the solution that resolves the conflict.

Think of new words to express this pattern.

imagine the essence of this pattern.

Is there an important tip or technique in the theme or domain?

📖 **Subject** ①
What kind of theme or domain do you want to write a pattern about?

Pattern Writing Sheet with Instructions
Ver.0.91

≈ **Context** 4-1
When or where does the problem occur? Specify the context.

In this context

What kind of situation is it when the problem occurs?

✳ **Forces** 4-2
Forces in a pattern are laws or tendencies that we cannot change and which make the problem difficult because they can be incompatible.

-
-
-

Because of these Forces

Why does the problem occur? What kind of forces are at work?

☠ **Problem** ③

Therefore

What will happen if you don't implement the Solution?

🪄 **Solution** 2-1
Identify one important thing you really want to share with colleagues and newcomers. First think a lot, then choose just one.

Be concrete, for example

Be abstract. It can be said as

For exampe

What is the Consequence of the Solution?
+: Positive Consequence, generating living quality
- : Negative Consequence, side effects

🤸 **Actions** 2-2

-
-
-

As a Result

😊 **Consequence** ⑤

+ POSITIVE

— NEGATIVE

○Takashi Iba, "A Journey on the Way to Pattern Writing: Designing the Pattern Writing Sheet," *Hillside Proceedings of the 21st Conference on Pattern Languages of Programs*, 2014

In this keynote, I've done to…

invite you to the world of *pattern language*

by …

- showing **what kind of pattern languages** have been created in the area of human action (activity design) including education, creative works, welfare, and everyday life,

- introducing our method of **how to create** a pattern language from narrative of practitioners.

So that …

you can start creating a pattern language in your domain and write papers on them.

PATTERN LANGUAGES OF PROGRAMS CONFERENCE **2022**

PLoP 2022 will be held **ONLINE** (again)

PLoP22

OPOURRI | PLOP PAPERS | SL-PLOP PAPERS | REGISTRATION | PROGRAM

29TH CONFERENCE ON PATTERN LANGUAGES OF PROGRAMS

https://www.hillside.net/plop/2022/

europlop

5.-9. July 2023

26th European Conference on Pattern
Languages of Programs (EuroPLoP 2023)
Kloster Irsee, Germany

Conference | Patterns | Hillside Europe

Home

Submission

Acceptance Criteria

Proceedings

The Conference

Important Dates

Feb. 6, 2023:   Deadline for initial paper submission

https://europlop.net/

Evolution of Pattern Language

Take-Home Gift