How to Write Tacit Knowledge As a Pattern Language: Media Design for Spontaneous and Collaborative Communities

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Introduction

Spontaneous and collaborative community is much sought but hard-to-get in either physical or virtual community. The difficulty in realizing such communities comes from the requirement that two conflicting conditions, the freedom of participants and a whole or order, must be satisfied. Pattern language, which describes the tacit knowledge of local acts to create global order. We propose a procedure for making pattenr language, demonstrating from our experience of making "Learning Patetrns", which is a pattern language for creative leraning.
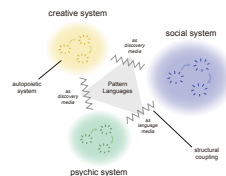
Pattern Language

"Pattern languages" is known as the method to share "knowledge of practice." The idea of pattern language was originally proposed in architectural design (Alexander et. al. 1977, Alexander 1979) and it has been applied and well known in the software design (Beck and Cunningham 1987, Gamma et. al. 1995). Recently, languages in specific theme like interface design (Tidwell 2005) and in broader domain like organization design (Manns & Rising 2005), human activity design of learning (Iba et. al. 2009), and so on.
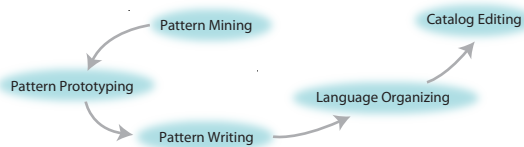
Pattern Languages as Media

Pattern languages provide a new view for the reader so that they can think, in other words "media for consciousness". And they fill the role of providing common vocabulary on designing principle of the problems as "media for communication". Besides they help to transform improbable discoveries to probable discoveries, and support the creative system to forms as "media for discoveries".

5 Phases for Making a Pattern Language

We would like to propose 5 phases process for making a pattern language.

Case: Learning Patterns 2009

"Learning Patterns" is a pattern language for creative learning, which is originally developed for an official guidebook for learning "how to learn" in Keio University. The catalog booklet of Learning Patterns to undergraduate students was handed out to more than 4,000 students of two faculties: Faculty of Policy Management and Faculty of Environment and Information Studies.

Pattern Catalog
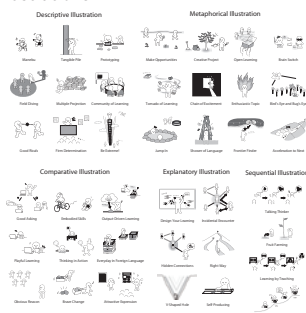

Pattern Form

Project Members

9 Undergrauate students of Iba lab., Keio University.

Illustrations

Pattern Mining

To discover embodied patterns in the activities within the target community.

We started by brainstorming about the knack of experienced learners, considering the curriculum of our faculties and campus life. Then, we discussed the ideal acts to realize individual creative learning and community development. After that, we described the core parts of patterns: pattern name, problem and solution.

Pattern Prototyping

To make a few patterns in full format, in order to clarify and share the vision of final product.

We moved on to make three patterns as prototypes. At the same time, we decided the concrete form of our pattern language: Pattern Number, Pattern Name, Introduction, Illustration, Context, Problem, Forces, Solution, Actions, and Related Patterns.
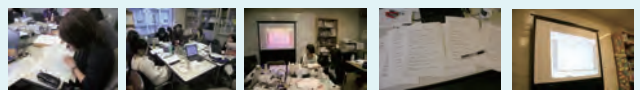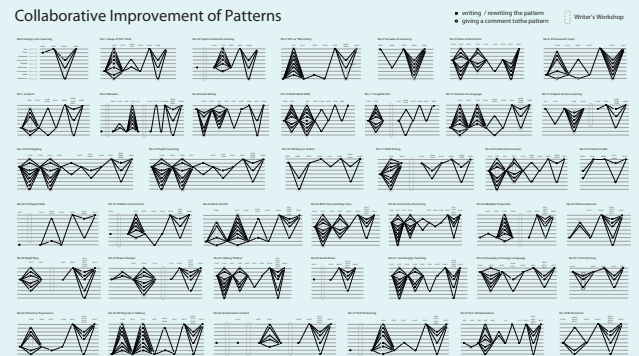

Pattern Writing

To write up all patterns, and to improve them through Writer's Workshop inside the project.

Each member takes charge of some patterns, and we spent six hours a week to improve the patterns through writer's workshop. Taking them home, we rewrite the patterns.
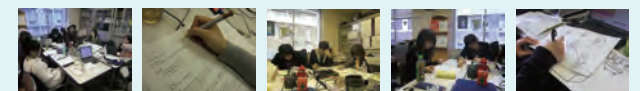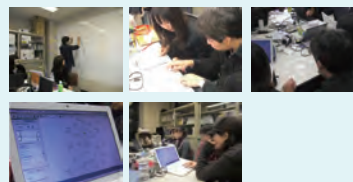

### Collaborative Improvement of Patterns

Language Organizing

To clarify the relations among patterns, and make the whole well-organized.

We made effort to organize 40 patterns into a whole inter-connected system. Sometimes, we discuss and change the pattern name and key message of patterns, considering the role of the pattern in the whole pattern language.

Overview of Leaning Patterns
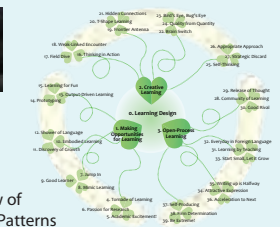
Catalog Editing

To made and edited the pattern catalog, including cover design, books recommendation, and index.

We edited the catalog, cosidering readability for university students and usability in daily campus life.