

# Generator Patterns: A way of being that fascinates others with the attractive world and generates discoveries and excitement

KAITO SHIOTA, Graduate School of Media and Governance, Keio University, [gamtvyam@sfc.keio.ac.jp](mailto:gamtvyam@sfc.keio.ac.jp)

KIYOKA HAYASHI, Graduate School of Media and Governance, Keio University, [kiyoka@sfc.keio.ac.jp](mailto:kiyoka@sfc.keio.ac.jp)

AOI IMAI, Faculty of Policy Management, Keio University, [s20102ai@sfc.keio.ac.jp](mailto:s20102ai@sfc.keio.ac.jp)

HIROAKI TANAKA, Graduate School of Media and Governance, Keio University, [hrktnk@keio.jp](mailto:hrktnk@keio.jp)

TAKASHI IBA, Faculty of Policy Management, Keio University, [iba@sfc.keio.ac.jp](mailto:iba@sfc.keio.ac.jp)

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In this paper, we present the Generator Patterns as a pattern language for a way of being that fascinates others with the attractive world and generates discoveries and excitement. The patterns were developed through Mining Interviews with 10 people who embody the Generator way of being in various areas such as education, community development, and corporate management. Based on this, we created Generator Patterns, which consist of 27 patterns, and they are categorized into three: *LIVE IN AN ATTRACTIVE WORLD*, *FASCINATE WITH WORDS AND ACTION*, and *GENERATE DISCOVERIES AND EXCITEMENT*. This paper focuses on seven patterns, *World Builder*, *Overflowing Excitement*, *Awesome Story*, *A Little Beyond the Limit*, *Struggle Together*, *The Most Energetic One*, and *Going Beyond the Ceiling*.

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## 1. INTRODUCTION

In business, research, and in everyday life, we are constantly generating something as long as we continue to exist. Sometimes we are involved individually, and other times as part of a team. In such diverse contexts of generation, it has become challenging to rely solely on specialists or outstanding leaders to solve every problem.

Now, we must not simply leave everything to someone else; instead, while occasionally seeking the help of specialists, each one of us should become a proactive creator of something. This doesn't just apply to mere production, it signifies an era where we must determine our own lifestyles, work styles, ways of living, and even the direction of our communities and societies. Iba refers to such an era as a Creative Society (Iba, 2013; Iba, 2016).

In such generative situations, there are individuals who take the initiative more than anyone else. They genuinely enjoy what they do, inspiring those around them with their curiosity and spirit of exploration. They carve out new methods and lifestyles, aiming to find original solutions to the problems they encounter. Such individuals are called Generator, and their practices and concepts are gaining momentum as a new way of life.

## 2. THE CONCEPT OF GENERATOR

The concept of the Generator was born in 2011, when Iba and Ichikawa conducted a dialogic introspective interview mining things that they cherish in the exploratory project with children, aiming to consolidate what should be commonly valued on conducting generative learning and education.

The concept created at that time was included in the paper, "Pedagogical Patterns for Creative Learning," as patterns of Generative Participants (Iba et al., 2011). This pattern emphasizes that teachers engaging in creative

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learning should not position themselves as the instructors of students, but rather as participants. Then they contribute to new discoveries in the creative process, and encourage students' thinking and communication (Fig. 1).

## Generative Participant

*Encourage students in thinking, communicating, and  
creating,  
as a participant in the activity rather than a teaching actor.*

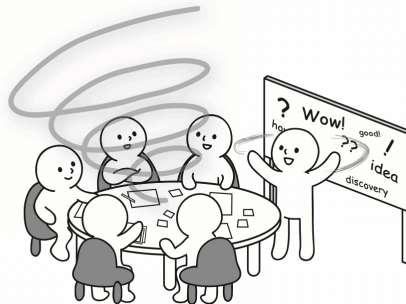


Fig. 1. Generative Participant presented in the paper, "Pedagogical Patterns for Creative Learning" (Iba et al., 2011)

Later, in 2013, Pattern Language for educators to become Generative Participant was proposed in the paper (Shibuya et al., 2013). This paper introduced the concept of a Generative Participant as a person who actively participates in creative activities alongside learners, creating an environment where learners can easily make new discoveries and generate ideas. It also presented patterns designed to make such environments easily achievable.

Moreover, in 2016, the term Generative Participant was revised to Generator, widening its application beyond the educational field. And then, a pattern language for becoming a Generator in a co-inquiry context was proposed in the paper (Nagai et al., 2013). These papers were created based on the idea of Generator at that time and the practice of Ichikawa and Iba, while it offers valuable insights of Generator.

Both Iba and Ichikawa have continued to practice as Generator, leading to an evolution in their thoughts over time. The culmination of their work was included in the book "*Creative Learning: Learning and Education in a Creative Society*," published in 2019 (Iba et al., 2019), and the book "*Generator: Generating Learning and Activity*," published in 2022 (Ichikawa and Iba, 2022).

In these books, various aspects of what concepts of a Generator are discussed. For example, Generator is described as "*someone who participates alongside others to create excitement, acting in a facilitator-like role, they involve everyone in the excitement while also being a participant themselves*" (Ichikawa and Iba, 2022, p.15), in creative activities. In another aspects, it is explained that "*Generator generously share their own ideas, insights, and accumulation of ideas. They also stimulate the creativity of those around them, welcoming each individual to freely express their own ideas and insights*" (Ichikawa and Iba, 2022, p.72).

The way of being a Generator might initially seem akin to the role of a leader who governs an organization. However, "*since it pertains to the style and attitude of participants facing a space for creation and communication, it does not have to be limited to one person; it could be everyone participating*" (Ichikawa and Iba, 2022, p.184). Thus, it is conceived that anyone can be a Generator.

Moreover, the number of individuals referred to as Generator has been increasing, and it is being practiced by an even broader range of people with diverse fields such as education, community development, and business operations. In 2021, a community for people interested in the Generator concept, "We are Generators!" was established (Ichikawa and Harajiri, 2024). The community has over 80 members who learn about the practice of being a Generator while implementing it in their lives. However, despite the growing attention and interest in the practice of being a Generator, it's not easy to adopt this role. This is because being a Generator isn't merely a

skill, it's a way of practice directly linked to how one lives their life. Therefore, it can be challenging to imitate others' practices, and there are individuals who aspire to become Generators but are unsure of the actual steps to take, leaving them struggling to put this concept into practice.

Therefore, we decided to create Generator Patterns that redefined what is important in the practice of being a Generator. This pattern will support those who aspire to become a Generator but are unsure of the actual steps to take, leaving them struggling to put this concept into practice.

From the next section onwards, we will introduce the creation process for actual patterns and introduce Patterns that have been created.

### 3. CREATION PROCESS

Generator Patterns were created based on the creation process developed in the Iba lab (Iba, 2021a), which involves three main phases: Pattern Mining, Pattern Writing, and Pattern Symbolizing.

#### 3.1 Pattern Mining

In the Pattern Mining phase, a process called Mining Interview (Iba and Yoder, 2014), was conducted to extract practical tips from practitioners, and then create Pattern Seeds that prototype elements that form the Pattern Language.

Interviews were conducted with Iba and Ichikawa, who constructed the concept of the Generator, as well as with a total of 10 individuals whom Iba and Ichikawa consider to be practicing Generator in Various fields, such as education, urban development, and corporate management. These individuals either consider themselves to be Generator or are regarded as Generator within the community of "We are Generators!" (Table 1).

This took approximately 180-300 minutes for each of them. As a result, over 1000 important things were extracted for the practice and way of life of the Generator as Pattern Materials.

Table 1. List of interviewees

| Name             | Activities Descriptions   |
|------------------|---|
| Chikara Ichikawa | For many years, researching, learning experiences that both adults and children can explore together, he has collaborated with Iba to conceive the concept of Generator and operate the "We are Generators!" community. Currently, he travels throughout the Japan and live as a Generator, creating community for mutual growth by unleashing participants innate curiosity through an activity called "Feel°CWalk." |
| Takashi Iba      | He is a professor at Keio University's Faculty of Policy Studies. He created the concept of Generator with Chikara Ichikawa. He builds theories that clarify what it means to be creative and creates pattern language that supports creative practice in a wide variety of fields. He lives as a Generator creating new academic disciplines, attracting students, and creating together.                            |
| Hideo Miura      | He serves as a company executive while nurturing cross-boundary leaders who support individuals with passionate aspirations they've developed within the corporate framework. Actively participating in and supporting the endeavors of those who look to him for guidance, he lives as a Generator who envisions and nurtures an exciting future together.   |
| Keibun Nakagawa  | He retired as president of a company that was producing attractive achievements, and moved alone to tuno Town in Miyazaki Prefecture, Japan where the population is 10,000, to work on community development. In the process of assisting in community development, he lives as a Generator who explores new forms of community development with young people.  |
| Yuka Watanabe    | Wanting to make her own children more aware of the attraction of learning living ability from nature, she involved people with similar interests and created the community named "Chikyu no Gakko (School of the Earth)" in Hinohara Village, Tokyo, to explore a new way of living in nature. She lives as a Generator conveying the attractiveness of learning the ability to live from nature.                     |
| Keiko Ito        | She was originally an elementary school teacher. While teaching, she met Chikara Ichikawa and sympathized with Feel°CWalk, becoming a disciple and working together with him. She organizes events around Japan where people learn about Feel°CWalk and Generator. She is a Generator of learning that organizes events to learn what she feels attractive and attracts others to it.                                 |
| Asuka Higuchi    | With a focus on food and agriculture, he engages in community-based food education activities in Kamiyama-cho, Tokushima prefecture, Japan. Aiming for a society where farmers become one of the most desired occupations, she goes to local schools on a daily basis and lives as a Generator to tell school staff and children about the attractiveness of agriculture and food.                                    |

|                |  |
|----------------|--|
| Hitomi Morooka | She is a mother of three boys and founded a mothers' community with the aim of creating a society where everyone can solve their parenting problems together. She lives as a Generator as a mother who realizes several projects that make child rearing fun and bring out the maximum creativity of children.           |
| Yuko Matsuki   | She is a mother who sets up events that make child-rearing fun. She lives as a Generator who plans and organizes an event called "Kinokonokonoko Camp," in which all participants become the main characters and enjoy the interesting things that come out of coincidence, with the involvement of a variety of people. |
| Mami Kinoshita | She was a teacher before, but with a love of ferns and a desire to be more involved with ferns, she moved to Yoshino, Nara Prefecture, where she created a fern habitat to study the fascination of ferns and live as a Generator of ferns to love and enjoy them.   |

Then, clustering (Iba et al., 2017) is performed based on the extracted Pattern Materials. The clustering process involves deep reflection about the meaning of every single sticky note on which something important practice is written. It demands that we go beyond the specific words to grasp the true meaning of what is written on the notes, and to compare each sticky note one by one, and group together those that share similar essence. As a result, 165 Pattern Ingredients for conducting Generator Practices were extracted (Fig. 2).

After that, to create pattern seeds and to systematize, the obtained Pattern Ingredients were then systematized based on their characteristics (Iba, 2021b). During the systematization process, it was decided to focus on three essential aspects of Generator Practice. This decision was driven by the desire to ensure ease of understanding for readers, simplicity in the structure, and the power to converge the content by limiting each category or group to only three patterns. As a result, 27 pattern seeds were created.



Fig. 2. Discussing the meaning of sticky notes while clustering

### 3.2 Pattern Writing

After Pattern Mining was completed, we moved on to the Pattern Writing phase. In the Pattern Writing phase, the 27 Pattern seeds obtained from the Pattern Mining phase were written in the form of a CPS Format: Context, Problem, Solution, aiming to express the essence of each pattern more concisely.

As the Pattern Writing and systematization evolved, the structure became more aligned with the important aspects of Generator Practice. Once the essence and systematization of the patterns were solidified, each pattern was described in a Full Description format, including specific examples with the Context-Problem-Solution-Consequence structure.

### 3.3 Pattern Symbolizing

Pattern Symbolizing was conducted simultaneously with the previously mentioned Pattern Writing process. In this phase, each pattern was given a Pattern Name, an Introduction, and a Pattern Illustration to create more appealing and evocative patterns.

The process began by naming each pattern with a single word that symbolizes its content. To capture the charm that may not be fully conveyed by the Pattern Name, an Introduction was created to succinctly describe the essence of the pattern. Furthermore, a Pattern Illustration was designed to enhance the image of practicing the pattern.



#### 4. THE OVERVIEW OF THE GENERATOR PATTERNS

The Generator Patterns consist of 27 patterns, and they are categorized into three categories: *LIVE IN AN ATTRACTIVE WORLD*, *FASCINATE WITH WORDS AND ACTION*, and *GENERATE DISCOVERIES AND EXCITEMENT*. As shown in fig. 3, each categories contains three groups and nine patterns. Each pattern is not entirely independent of the others but is interrelated across categories.

In the following, we introduce summary descriptions for each category of groups. While the content is presented in a specific order, it's important to note that one doesn't necessarily need to follow or complete everything in that exact sequence from start to finish in each category/group/pattern to implement them. We anticipate that individuals will select and use the patterns most relevant to their current situation.

In Generator Practices, the first important thing is to *LIVE IN AN ATTRACTIVE WORLD*. To realize this, it starts with *BELIEVING IN INTUITION* that perceives the fascination and charm within oneself and wholeheartedly pursuing it. In the process of giving shape to the ideas and dreams that arise from this pursuit, one achieves *BUILDING WORLD*. It is crucial to communicate the allure of this created "world" and *ENGROSSING WITH THE WORLDVIEW*.

The second important thing is to *FASCINATE WITH WORDS AND ACTION*, becomes vital. It involves continually opening up the sensibilities of the people present by *OBSERVING THE MINOR* in the surroundings and actively seeking discoveries and amusement. Creating an environment where team members can freely share their observations and thoughts, fostering an atmosphere letting everyone *BEING NATURAL*. It was revealed that they take what they have found or achieved and *REFRAMING ATTRACTIVELY*, ensuring that the time spent together becomes something extraordinary.

The third important thing is to *GENERATE DISCOVERIES AND EXCITEMENT* in the context of co-creating something with others. In order to do so, they put *ENDEAVORING STEADFASTLY* to generate discoveries and excitement while creating something. They strive to produce moments where something fascinating happen through *EXPLOSIVE CREATION* in collaboration with everyone present. Not confining the excitement to their own circle, but *EXPANDING BOUNDARIES* to involve various people and create even more thrilling future possibilities.

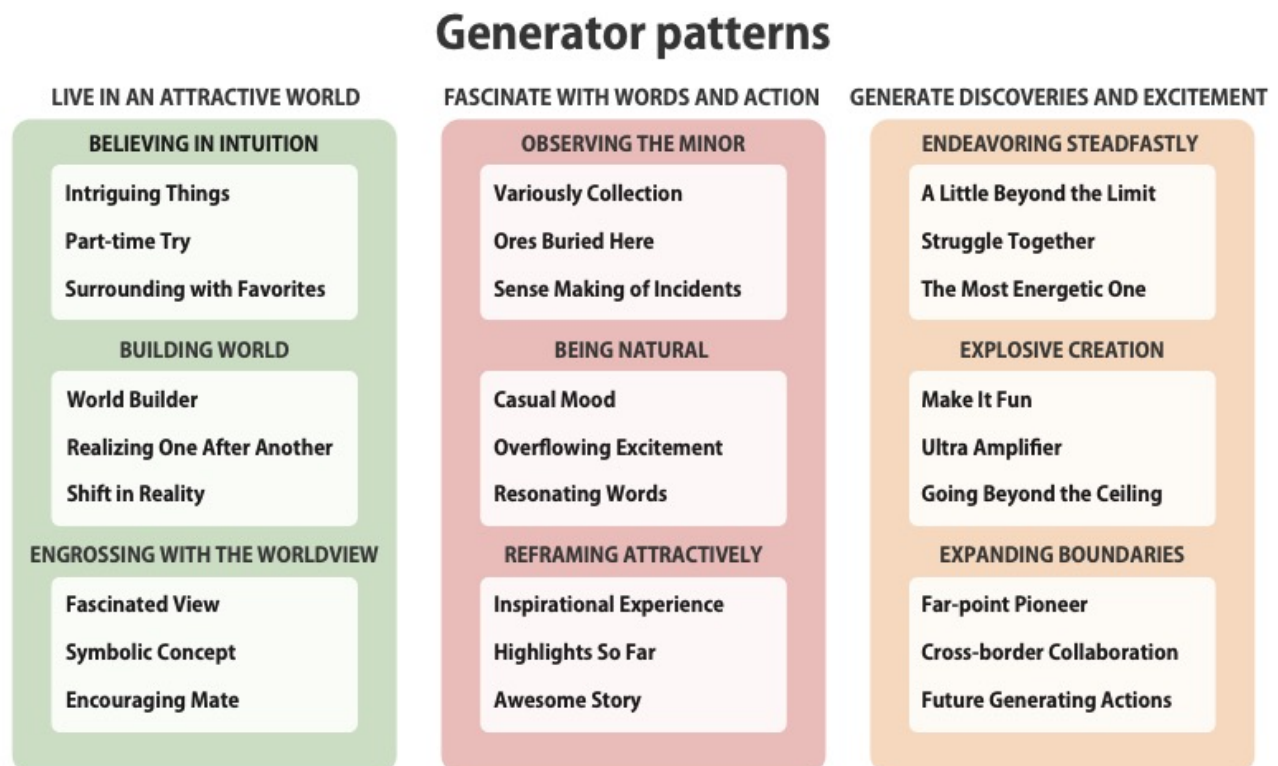


Fig. 3. The overview of the Generator Patterns

## 5. THE PATTERNS WRITTEN IN FULL DESCRIPTIONS

This section presents seven patterns from all three categories mentioned in the previous section: *World Builder* from *LIVE IN AN ATTRACTIVE WORLD*. *Overflowing Excitement* and *Awesome Story* from *FASCINATE WITH WORDS AND ACTION*. *A Little Beyond the Limit* and *Struggle Together, The Most Energetic One, Going Beyond the Ceiling* from *GENERATE DISCOVERIES AND EXCITEMENT*.

Each pattern is organized in a common format and contains the following information: Pattern Name, Introduction, Pattern Illustration, Context, Problem, Solution, Consequence (Fig. 4).

And, the 27 Generator Patterns, including those not fully described in this section, are presented in the Appendix. However, since full descriptions of every pattern would take up too many pages, the patterns in the appendix are presented in shortened sentences.

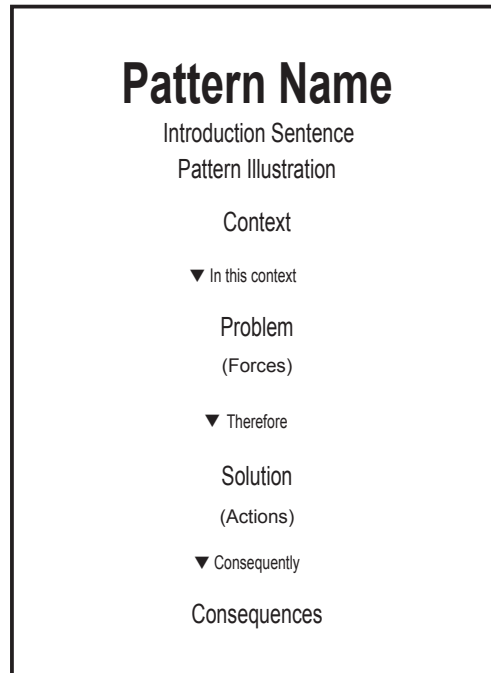


Fig. 4. Pattern Format for describing Generator Pattern

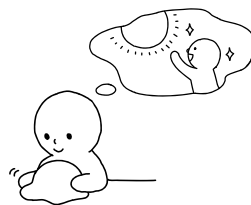
### 5.1 World Builder

The *World Builder* exists within the BUILDING WORLD group, supporting that the initiatives of practitioners turning into something that feels like a new “world,” emerging and taking shape.

#### 5.1.1 Pattern Description

### World Builder

Believe in the existence of the “world” that captivates you, and relentlessly engage in activities.



You have an idea or dream that would be great to focus on

▼ In this context

**While striving to make the endeavor more meaningful, there are occasions that lead to the unique charm diminishing.** Even if one starts engaging with the belief that they are captivating, when the activities are not receiving as much recognition as anticipated from the surroundings, it may lead to a shift towards making it even more socially significant. However, when approaching it in this way, even if you receive praise for its social value, there may be times when you struggle to fully find the personal significance in the pursuit.

▼ Therefore

**Perceiving the “world” as something to be created, emphasizes activities that stand out as something uniquely achievable by oneself.** The “world” is something that may not yet exist in reality and may seem like a dream, but it begins with believing that such a future is possible. Therefore, at the beginning, you might be perceived as a bit unconventional by those around you. However, it is essential to consistently believe in your own beliefs, investing overwhelming effort and time, to bring to life the “world” you believe in.

▼ Consequently

As your unique “world” takes shape, your distinctive charm emerges in everything you do, adding a personal touch to your actions. In such a process, as others recognize you as someone living in this “world” with certain values, you naturally find yourself in environments where you can deepen those feelings, such as being invited to relevant settings. This facilitates the opportunity to further nurture your aspirations.

#### 5.1.2 Examples

As a practical example, Kinoshita practices this pattern in her life. She engages in creating a “world” where they cherish and enjoy fern plants. Driven by her love for ferns and the desire to delve deeper into their charm, she relocated to the Yoshino region on the Kii Peninsula, where ferns thrive. She has repeatedly engaged in activities where she immerses herself in ferns and speaks about their allure. Through these experiences, she came to establish a “world” by observing ferns with others, and together, they appreciate and enjoy ferns by delighting in their forms and life processes.

Furthermore, to further explore the charm of this “world,” she has been traveling nationwide through talking session aimed at spreading the goodness of ferns, resulting in gradual increasing in funds and fans. She established a base called “Shida no Sumika” meaning “Where Ferns Live” in Yoshino, where ferns are cherished and enjoyed. She continues to be a practitioner of *World Builder*.

Another practical example, Ichikawa enacts this pattern in his life. He engages in the practice of creating a “world” where curiosity is awakened through walking. He has established a “world” through the activity called Feel°CWalk, where both adults and children can have their curiosity awakened, find joy in small discoveries, and appreciate together. Feel°CWalk is an activity where individuals gather to aimlessly wander, take photographs, and sketch whatever catches their interest, all while cherishing and enjoying it together. He continues to create a “world” where curiosity is awakened through “walking” for a wide range of ages, from adults to children, in various regions across Japan through this activity.

#### 5.2 Overflowing Excitement

*Overflowing Excitement* is a pattern within the category of *FASCINATE WITH WORDS AND ACTION* which supports the person to be natural with their own feelings of excitement.

##### 5.2.1 Pattern Description

## Overflowing Excitement

Follow your overflowing feelings and get excited.



You found something to be excited about.

▼ In this context

**If you keep your feelings inside, you may not be able to face your feelings of excitement honestly.** It is normal to think that it is something embarrassing to be honest about one's feelings, and to force oneself to hold back one's excitement. However, if you keep a lid on your own mind in this way, you will not be able to understand the feeling of excitement itself. Then, you will not be able to think of anything as interesting.

▼ Therefore

**By making them more and more interesting as you encounter them, you will become so excited that you will want to tell everyone around you about them.** First, without putting a stop to the thoughts that you feel excited about, respond impromptu to each connection as it comes to you, and make it interesting. Then, following the desire to share the excitement that emerges and wells up in the process, share it with those around you. Building a group of people with whom you can share your excitement and get excited together regularly will make you even more excited for your time.

▼ Consequently

By living each day according to what excites you from the depths of your heart, you can live joyfully without lying about your feelings. In addition, spending your time in such an exciting way will not only stay with you, but will also spread and influence the atmosphere of enjoyment to those around you. The people who are inspired become the ones who talk about their excitement, and then the next person, and the next, and the next, and gradually the number of people who talk about their excitement grows and grows.

### 5.2.2 Examples

As a practical example, there is a person who vividly tells some exciting moments in his daily life. For example, Iba expresses his new discoveries and hypotheses that he came across through reading books by saying things like, "I found this new thing!," "This is connected to something I've been thinking about!," "This is what I thought!."

In addition, in vegetable cultivation, he posts lively photos of the day's crops and what he discovered while growing them on the main communication tool with students, SLACK. This *overflowing excitement* has attracted some students that have actually started growing their own vegetables.

Another practical example, Miura was fascinated by something exciting from another person, and when he tried it out, he became on the side of the passionate talker. He started riding because a colleague at his company who was a horse rider repeatedly spoke passionately about the appeal of horses and social issues related to horse riding. He wanted to know why the colleague was so passionate about it. At first, he had no interest in riding horses, but he became curious and accumulated experience actually riding a horse himself. From that experience, he began to thoroughly explore what sensations he grasped from riding a horse.

In this way, the practitioners of this pattern are so overflowing with excitement about what they are interested in that their excitement is not limited to themselves, but they talk about it to the people around them.

### 5.3 Awesome Story

The pattern *Awesome Story* lies within the REFRAMING ATTRACTIVELY group, where everyone collectively turns their shared activities into something extraordinary.

#### 5.3.1 Pattern Description

## Awesome Story

The journey that feels the best when looking back.



The things you have worked on together have finally taken shape.

▼ In this context

**When something you have been working on is somewhat successful, you may be satisfied with that stage and end up not pursuing anything more, and it may only be remembered as one activity out of many.**

People work hard until they complete what they have been working on, but rarely do they move further in pursuit of something more. However, what has been done only to give shape to the project will fade from memory after a while. And it is also difficult to motivate people to take on new challenges with the people they have worked with.

▼ Therefore

**By designing the activities to become the best activities ever, make sure that when you look back on the process, it will be the best you have ever done.** For example, encourage your teammates that what you are working on is connected to something that will brighten the world and the future, and take action toward realizing that this is actually happening. It would be good to realize that you are making a difference, as well as to have those around you value your efforts and realize that you have created the greatest one.

▼ Consequently

What you have done with members will remain in their minds in a positive way as the best thing achieved. This confidence will motivate them to continue their activities in the future. It will also lead to the building of trust and bonds, such as the feeling that it was a pleasure to work with these members and that there is hope to work hard together again, which may lead to new challenges.

#### 5.3.2 Examples

As a practical example, Iba practices this pattern when collaborating with student members as they move forward. While challenging a single theme together with everyone, he values expressing the feeling of achievement more than anyone else when they overcome a hurdle. He cherishes experiencing the journey towards that accomplishment with everyone. By doing so, he creates an environment where everyone can collectively realize that our efforts have turned into something great.

Furthermore, when embarking on the next challenge, he takes the time for everyone to collectively reflect on what they have achieved so far and to capture every single event as a treasure, then creating a sense of unity in the group.

Another practical example in when Miura applies this pattern while coaching children's soccer classes. He was asked to be a coach despite having no prior soccer experience. While he couldn't teach soccer techniques, he thought about making the time spent with the children the best it could be. He worked on improving his physical fitness, studied soccer, and engaged in an initiative with everyone to come up with original names for the skills and strategies.

This initiative came about when he noticed that the children were not enjoying themselves during the game due to instructions like "Pass the ball!" He thought about how to make it fun with the kids and worked on things like giving names to skills and strategies together. The strategies were given names that sounded like they could come from an anime, and the time spent playing soccer together became something extraordinary.

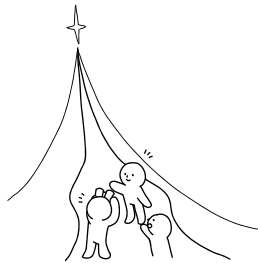
#### 5.4 A Little Beyond the Limit

*A Little Beyond the Limit* is a pattern within the category of *GENERATE DISCOVERIES AND EXCITEMENT* to support to be engaged in creative activities with *ENDEAVORING STEADFASTLY*.

##### 5.4.1 Pattern Description

### A Little Beyond the Limit

A goal that is a bit overwhelming but exciting.



You are trying to create something interesting together.

▼ In this context

**If you start from what seems achievable based on past experience, it may be difficult to create something exciting and interesting.** People tend to work on things in areas that seem doable, thinking that it will be more enjoyable to work with members after having precisely set a goal or range of things that can be predicted to a certain extent. However, if you just try to work steadily within the possible range, it is easy to imagine the goal and the path to it in reverse. If so, there will be a lack of enthusiasm and a looseness in the way the project is carried out, and anything exciting and interesting will not come out of it.

▼ Therefore

**By setting a goal that is a bit challenging but exciting, that cannot be achieved without all the people working hard, create a situation in which people have to work hard to achieve it.** First, decide to work on something that involves a new challenge for you and everyone else, based on what you are most interested in or excited about at that moment. Then, determine the time period in which you can accomplish it, declare it to those around you, and proceed with it all at once.

▼ Consequently

By tackling the things that are a Little Beyond the Limit, team members can work with vitality and forward momentum toward the direction they are aiming for. In tackling something challenging, one must learn each time what is necessary to realize it, and there will be many opportunities to grow while gaining new insights and

discoveries that go beyond the limits of what has been done so far. Furthermore, it can be an opportunity to be inspired by the efforts and to want to take on new challenges.

#### 5.4.2 Examples

As a practical example, Iba practices this pattern when collaborating with student members. He engages in creative activities involving students by setting *A Little Beyond the Limit* goals and themes. For example, based on the results of an event held with students, he conceived of a new theme of experimentation and research, and launched it as a project in his study group. The project was launched with the declaration that it would complete design, prototype, fabricate, explain, experiment, analyze, write, and finalize the thesis within a short period of three months. The project was completed with the involvement of the members who were working together on the research.

In addition, in the collaboration techniques class he was teaching at the university, he gave the students a group theme of proposing an attractive place. He asked students to think about what they meant by attractive and what an attractive place would be like. Since the theme is polysemic, the students themselves have to identify the meaning and enrich the content of the theme, but the theme is designed in such a way that there is a restriction that they cannot submit anything that is not attractive or is not a place.

Another practical example, Morooka practices this pattern within a mothers' community. she asks mothers in her community to find 100 good things about their children in one week, which is *A Little Beyond the Limit* mission. When given such a mission, members of the community were at first worried, wondering what to do. In reality, however, strategy meetings were held among the members of the community together, and everyone was excited about discussing how to make it happen, taking into account the children's personalities, the positive feedbacks from the schoolteachers, and suggesting that it might be a good idea to ask grandparents.

In this way, they set as *A Little Beyond the Limit* mission that cannot be realized unless all the members involved are seriously committed to it, and that is challenging and would be exciting for everyone if it could be realized.

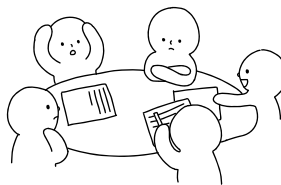
#### 5.5 Struggle Together

The *Struggle Together* pattern is within the ENDEAVORING STEADFASTLY group, and it supports the practice of collectively grappling with challenges, irrespective of one's position or experience, to realize themes that are *A Little Beyond the Limit* and generate ideas.

##### 5.5.1 Pattern Description

## Struggle Together

Together, determined to generate and deepen the thoughts.



You are trying to create something together with the gathered member.

▼ In this context

**If an atmosphere is created in which those with higher years or more experience must lead the process well, they may become reticent to each other and not be able to create together.** If an atmosphere is created in which those with higher years or more experience must lead the process well, they may become reticent to each other and not be able to create together. While trying very hard to create, it is a natural tendency to keep



the appearance of being troubled hidden and to try to act cool, so as not to make everyone feel anxious. However, if we act in such a way, they will not be able to notice what is happening, and it would become difficult for everyone to create together.

▼ Therefore

**By showing your struggles and desperate efforts to create together, build a sense of unity that encourages everyone participating in the project to work together to realize the goal of the project.**

Openly tell the members that you don't know the answer to the problem either. And, expose to members how they are struggling, sometimes groaning, "Hmmm," while thinking together with them about how to make things better. If there is something you notice in the process of working on it, share our concrete ideas with them, like, "How about something like this?" , and If there is something that is unclear about an idea, ask the member on the spot about the intention of that idea, and deepen the point.

▼ Consequently

By sharing concerns and combining everyone's strengths with each other, the project can be created together. Collaboration can take place in areas where each member is strong, or where each member compensates for weaknesses, and efforts can be made that combine the strengths of each member. In this way, the product of everyone's combined strengths will contain many discoveries and insights that one would not have expected.

### 5.5.2 Examples

As a practical example, Iba practices this pattern when creating pattern languages with students (Fig. 5). When creating pattern languages with students, he makes a conscious effort to choose challenges that go beyond the boundaries of his own expertise, including topics he may not be very familiar with, and the latest themes. By doing so, he engages in the *Struggle Together* practice with student members, collectively struggling with what is essential and how to convey it while pondering and deliberating together.

Another practical example, Ichikawa practices this pattern when inquiry-based learning in high school. In his experience, while discussing with students about the inquiry theme of how to achieve the SDGs (Sustainable Development Goals), there was a moment when he unintentionally purchased a plastic bottled beverage, and this was observed by the children. During that moment, when the children said, "Hey, you bought another PET bottle and tried to hide it, didn't you?" he didn't immediately feel ashamed or try to make excuses. Instead, he asked the children, "Why do you think I keep buying plastic bottles?" and engaged in the *struggle together* with them. From there, they collectively pondered and committed to taking thorough actions.



Fig. 5. *Struggling Together* when creating pattern languages with students

## 5.6 The Most Energetic One

*The Most Energetic One* pattern is within the ENDEAVORING STEADFASTLY group, and it supports the practice of first having the practitioner themselves wholeheartedly engaged in the endeavor, which then energizes the members and helps create something great with momentum.

### 5.6.1 Pattern Description

## The Most Energetic One

Leading the way in creating something interesting, and involving others with the enthusiasm.



You want to create something better together with all the participants.

▼ In this context

**In the process of working together, if you try to let someone else do it, thinking that someone else will surely work on it, it may be difficult to reach the realization of the project.** When people work together with others, they tend to lose their temper at some point, thinking that someone else will do it for them even if they don't move themselves. However, expecting someone else to do it for you does not make the situation better. Even if someone tries to take responsibility for making things happen at the last minute, it is difficult to move forward on one's own with little time to do so. In such a situation, it is impossible to create something good.

▼ Therefore

**By being the first to run headlong toward a challenge and working on it more hands-on than anyone else, engages the people around you with your own enthusiasm.** Instead of worrying about their position or experience, or waiting for someone else to make a move, begin to think and make a move earnestly toward how they can create something good. Not only in the situation where you work together, but also when you have time to work by yourself, try hard to generate something. Through the way you work so hard to figure out how to make things interesting, they infect the enthusiasm of the people around you.

▼ Consequently

The enthusiasm with which they are earnest in creating something is passed on to the members around you, and everyone becomes earnest in creating a good thing. With everyone participating with a high level of enthusiasm, it enables the creation of something with a high sense of speed and density. Even things that may have seemed difficult to achieve at first can be realized if everyone works together, and this makes it possible to challenge even higher goals in the future.

### 5.6.2 Examples

As a practical example, Morooka practices this Pattern within the mothers' community. She values expressing through her actions that she is the most excited, enthusiastic, and genuinely enjoying herself. To engage in that practice, she dedicates herself to learning more than others and investing plenty of time in her own personal growth.

For instance, on a regular basis, she actively seeks out opportunities to learn about things she considers important, using these experiences to deepen her knowledge for her own courses, and incorporating them as conversation topics. By doing so, it not only inspires other members to strive harder and encourage one another but also brings vitality to the community, leading to an increase in new member enrollments.

Another practical example, Ichikawa practices this pattern implementing this through collaboration with students. Despite it being student-driven theme-based learning, he, as a teacher, gets more dedicated than anyone else in thinking, and he encourages the members by asking questions like, “Could it be better this way?” or “Are you satisfied with this?” He involves them in that atmosphere and revitalizes the effort. In the midst of wholehearted dedication, there are moments when he becomes stern and uses tough words precisely because he takes it so seriously. He acknowledges these negative aspects and corrects them when necessary, but ensures that he speaks candidly about what must be said to genuinely improve.

In this way, practitioners who are the most dedicated, motivating their fellow members, work tirelessly and earnestly in their activities to collectively create something great. This is the essence of *The Most Energetic One* practice.

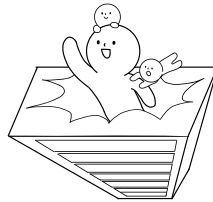
## 5.7 Going Beyond the Ceiling

*Going Beyond the Ceiling* lies within the EXPLOSIVE CREATION group, and it supports the practice of pushing far beyond what everyone perceives as the maximum attainable point in their endeavor.

### 5.7.1 Pattern Description

## Going Beyond the Ceiling

By leveraging the expertise of professionals, achieve results that significantly surpass predictions.



You desire to create something considered excellent by those around.

▼ In this context

**It can be hard to know what's truly excellent based on your own experiences, so you might feel satisfied when things seem okay from your perspective, but that could limit your ability to achieve even better outcomes.** You may tend to confuse your own limitations with the limitations of quality, often resigning to the belief that although improvement seems possible, there is no further action you can take. However, compromising at such a stage would prevent the creation of something truly remarkable in the eyes of others.

▼ Therefore

**By seeking the wisdom of experts, incorporating all the experiences at hand, and making deliberate efforts to maximize quality, create an experience that can dramatically transform the current perception of the world.** One approach is to first acquire overwhelming expertise oneself, enabling the ability to independently discern what is valuable. If you can't achieve that immediately, gaining a certain level of knowledge and then bringing in experts for your activities, seeking advice from individuals who resonate with your vision, can also help you create something extraordinary.

### ▼ Consequently

With the involvement of experts, you can confidently make judgments about what is good, and it becomes possible to create things that are praised as remarkable by those around you. Furthermore, the standards for what the team members consider good are significantly elevated by having experts closely involved. This heightened quality awareness encourages a focused approach to future endeavors. Through this shift in mindset, the quality of what the individuals involved in this context create is further enhanced.

#### 5.7.2 Examples

As a practical example, Iba practices this pattern when collaborating with his student. Having a 30-year career as a researcher, he is able to generate creative activities by coming up with higher-level ideas in collaboration with the students.

For example, in a situation where he is working on creating a pattern language, although the field he is creating is new, with his more than 10 years of experience in creating pattern language, he is able to grasp the essence of the practice and really bring it to the overwhelming quality in the description of the language. In doing so, students will experience a much higher level of quality than they had imagined, and they will experience that there was a much higher level.

Another practical example, Watanabe practices this pattern implementing a program that allows parents and children to experience the creation of their own playground by cultivating a mountain. In this case, she is *Going Beyond the Ceiling* with the help of a specialist in the field of what she is planning to do. In implementing the program, she has the participants experience the process of building a road in the mountain together with her. Rather than having only amateurs build the path, she invites a professional forestry expert to walk through the forest with the participants, and decides with them where they would like to build the path from the very beginning.

In this way, she is practicing *Going Beyond the Ceiling*, telling participants that even amateurs can make a real path through the mountains.

## 6. CONCLUSION

In this paper, we have presented the Generator Patterns as a pattern language for a way of being that fascinates others with the attractive “world” and generates discoveries and excitement. This concept consists of 27 patterns, and we were able to put the definition and details in words.

The concept of being a Generator has been explored in previous research through perspectives on how one can change their behavior in a situation to become a Generator (Nagai et al., 2016), and what kind of environment facilitates a Generator's activities (Shibuya et al., 2013). Based on the contributions of these papers to understanding the concept of the generator, our research aims to clarify the essence of generator practices among individuals across various fields, which has not yet been sufficiently revealed. Our investigation revealed that being a Generator extends beyond mere behavior in creative contexts but is intrinsically linked to one's way of living.

These patterns have achieved the goal of revealing the essence of Generator practice, by conducting Mining Interviews with individuals actively implementing the Generator approach in various fields, including not only education but also community building and business management. This content is expected to support a broader range of individuals, with diverse gender, age, and professional backgrounds, in expressing their creativity and generating new meanings and values in response to various challenges they face.

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## REFERENCES

- Iba, T., Ichikawa, C., Sakamoto, M., and Yamazaki, T. 2011. "Pedagogical Patterns for Creative Learning," In *the 18th Conference on Pattern Languages of Programs (PLoP2011)*.
- Iba, T. 2013. "Pattern languages as media for the creative society," In *the 4th International Conference on Collaborative Innovation Networks (COINS2013)*.
- Iba, T., and Yoder, J. 2014. "Mining Interview Patterns: Patterns for Effectively Obtaining Seeds of Patterns," In *Proceedings of the 10th Latin American Conference on Pattern Languages of Programs (SugarloafPLoP2014)*.
- Iba, T. 2016. "Sociological Perspective of the Creative Society," In 6th International Conference on Collaborative Innovation Networks (COINS2016).
- Iba, T., and Isaku, T. 2016. "A pattern language for creating pattern languages: 364 patterns for pattern mining writing, and symbolizing," In *Proceedings of the 23rd conference on pattern languages of programs (PLoP2016)*.
- Iba, T., Yoshikawa, A., and Munakata, K. 2017. "Philosophy and methodology of clustering in pattern mining: Japanese anthropologist Jiro Kawakita's KJ method," In *Proceedings of the 24th Conference on Pattern Languages of Programs (PLoP2017)*.
- Iba, T., Suzuki, K., Iwase, N., Imai, M. and Ichikawa, C. 2019. *Creative Learning: Learning and Education in the Creative Society*, Keio University Press (in Japanese).
- Iba, T. 2021a. "A Practical Guide on Pattern Writing for Pattern Languages of Practices," PLoPourri, In *the 28th Conference on Pattern Languages of Programs (PLoP2021)*.
- Iba, T. 2021b. "Systematization of Patterns: How to Craft a Pattern Language as a Whole," PLoPourri, In *the 28th Conference on Pattern Languages of Programs (PLoP2021)*.
- Ichikawa, C., and Iba, T. 2022. *Generator: Generating Learning and Activity*, academic publisher (in Japanese).
- Ichikawa, C., Harajiri, J. 'We are Generators!'. <https://fants.jp/community/generators>, 15 February 2024.
- Nagai, M., Isaku, T., Akado, Y., Iba, T. 2016. "Generator patterns: a pattern language for collaborative inquiry," In *the 21st European Conference on Pattern Languages of Programs (EuroPLoP2016)*.
- Shibuya, T., Seshimo, S., Harashima, Y., Kubota, T., and Iba, T. 2013. "Educational Patterns for Generative Participants," In *the 20th Conference on Pattern Languages of Programs (PLoP2013)*.

## APPENDIX




The following is a table with summaries for each of the patterns in the Generator Patterns.

### A.1 PATTERNS FOR LIVE IN AN ATTRACTIVE WORLD

#### A.1.1 BELIEVING IN INTUITION

Patterns in the group BELIEVING IN INTUITION are shown in Table 2.


Table 2. The summaries of the patterns in BELIEVING IN INTUITION

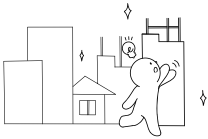
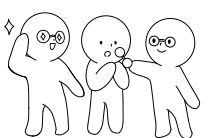
| Pattern Name               | Illustration  | Pattern Summary (Context/Problem/Solution)   |
|----------------------------|---|--|
| Intriguing Things          |    | You're trying to find something that will become the central focus of your activities. In this context, since it's common to let intriguing things pass by in everyday life, you might find yourself unable to recognize what truly captivates you when you try to discover it in reality. <b>Therefore, not overlooking the transient emotion of 'intrigue,' and by delving into it each time you encounter something that piques your interest, you explore the sources of your cur.</b> |
| Part-time Try              |   | You have encountered something that will become the central focus of your activities. In this context, even after researching and pondering about things that pique your interest, it's often difficult to see a unique way of engaging in activities that is truly your own. <b>Therefore, by diving into environments where you can thoroughly explore things that interest you and gaining hands-on experience, you can develop a tangible understanding.</b>                           |
| Surrounding with Favorites |  | You begin to see what you want to delve deeper into as your central focus. In this context, if you think about it only when you have a decent amount of time, it is difficult to deepen what you are curious about. <b>Therefore, incorporate what you like and what you are interested in into your daily life, constantly engage with it, and create a state where you're always thinking about it.</b>  |

#### A.1.2 BUILDING WORLD

Patterns in the group BUILDING WORLD are shown in Table 3.

Table 3. The summaries of the patterns in BUILDING WORLD

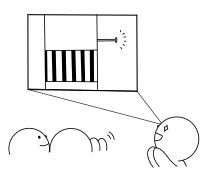

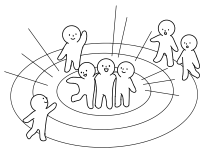
| Pattern Name  | Illustration  | Pattern Summary (Context/Problem/Solution)   |
|---------------|---|--|
| World Builder |  | You have an idea or dream that would be great to focus on. In this context, while striving to make the endeavor more meaningful, there are occasions that lead to the unique charm diminishing. <b>Therefore, perceiving the "world" as something to be created, emphasizes activities that stand out as something uniquely achievable by oneself.</b> |

|                             |   |   |
|-----------------------------|---|---|
| Realizing One After Another |  | You've come up with an exciting activity idea. In this context, waiting to finish current tasks before starting new ones can delay execution and prevent the "world" from launching. <b>Therefore, even if you have to work on several things at the same time, if you feel even a little bit excited about it, carry it out and make it happen while you are still full of motivation.</b> |
| Shift in Reality            |  | You feel the attraction and value of your own activities. In this context, even if you are confident in its value, if those around you cannot see any merit in it, the activity will not be accepted by society. <b>Therefore, by making your activities contribute to positive changes in reality, no matter how small, you can make them valuable to those around you.</b>                |

### A.1.3 ENGROSSING WITH THE WORLDVIEW

Patterns in the group ENGROSSING WITH THE WORLDVIEW are shown in Table 4.

Table 4. The summaries of the patterns in ENGROSSING WITH THE WORLDVIEW

| Pattern Name     | Illustration  | Pattern Summary (Context/Problem/Solution)   |
|------------------|---|--|
| Fascinated View  |  | You want to convey what you're feeling to others. In this context, you might end up using simpler words to be easily understood, but this could diminish the richness of what you truly wanted to express. <b>Therefore, by articulating what you find appealing in your own words and expressing it, you share the "world" you see with others.</b> |
| Symbolic Concept |  | You want to deliver the charm and value of the "world." In this context, merely using words to describe and convey doesn't always ensure the allure is fully understood. <b>Therefore, you can captivate and draw others into your worldview by using objects or actions that succinctly symbolize the allure.</b>                                   |
| Encouraging Mate |  | You've found people who resonate with your worldview. In this context, just approaching people when needed and trying to get them to become a part of the group will not expand the circle of activities. <b>Therefore, actively involve those who resonate with you, making them companions in expanding your "world."</b>                          |


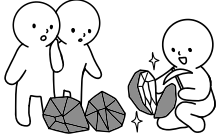
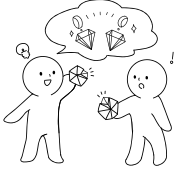


## A.2 PATTERNS FOR FASCINATE WITH WORDS AND ACTION

### A.2.1 OBSERVING THE MINOR

Patterns in the group OBSERVING THE MINOR are shown in Table 5.


Table 5. The summaries of the patterns in OBSERVING THE MINOR



| Pattern Name              | Illustration  | Pattern Summary (Context/Problem/Solution)   |
|---------------------------|---|--|
| Variously Collection      |    | You want to be able to make something interesting to talk. In this context, even finding something that could be interesting, it's hard to find a connection with yourself and it can lead to less excitement than expected. <b>Therefore, by collecting and keeping on hand at any moment whatever is even slightly interesting or memorable, gather the seeds of exciting ideas from which something might develop on a daily basis.</b> |
| Ores Buried Here          |    | You're looking for a perspective to advance discussions or become a talking point. In this context, focusing too much on expedient ideas for you can lead to abrupt opinions that don't follow the flow. <b>Therefore, by sharpening your senses to the present moment and polishing the interesting "ores" that could be interesting in the moment, revitalize the flow of the discussion.</b>  |
| Sense Making of Incidents |  | You want to fully appreciate and enjoy what happens in the moment. In this context, trying to make early conclusions against the conceptual framework you know may prevent you from discovering new discoveries. <b>Therefore, keep sensing potential connections and try to think about the meaning and story in your own interesting way until satisfied, finding new significance in unexpected connections.</b>                        |

### A.2.2 BEING NATURAL

Patterns in the group BEING NATURAL are shown in Table 6.

Table 6. The summaries of the patterns in BEING NATURAL


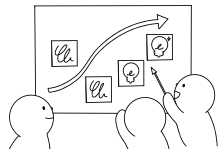

| Pattern Name | Illustration  | Pattern Summary (Context/Problem/Solution)   |
|--------------|---|--|
| Casual Mood  |  | You want to create an environment where discoveries are excitingly shared. In this context, if there is an atmosphere where people are too concerned about the other person or the flow of the moment to say what they are thinking, and try excessively to provide opinions and correct answers that are good for the discussion at that moment, the development of a discussion that might have led to a discovery may be missed. <b>Therefore, share even trivial insights without hesitation, lowering the barrier for expression.</b> |

|                        |   |  |
|------------------------|---|--|
| Overflowing Excitement |  | You found something to be excited about. In this context, if you keep your feelings inside, you may not be able to face your feelings of excitement honestly. <b>Therefore, by making them more and more interesting as you encounter them, you will become so excited that you will want to tell everyone around you about them.</b>  |
| Resonating Words       |  | You want to convey your feelings effectively. In this context, even though you try to find a good word that expresses your feeling well at the time, you may not find it immediately and not be able to tell it well. <b>Therefore, by collecting words that you feel are beautifully expressed and using them many times on a constant basis, enable what you want to express with suitable and attractive words.</b> |

### A.2.3 REFRAMING ATTRACTIVELY

Patterns in the group REFRAMING ATTRACTIVELY are shown in Table 7.

Table 7. The summaries of the patterns in REFRAMING ATTRACTIVELY

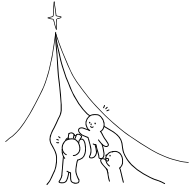
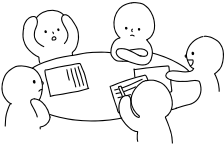

| Pattern Name             | Illustration  | Pattern Summary (Context/Problem/Solution)   |
|--------------------------|---|--|
| Inspirational Experience |  | You've had an amazing discovery you want to share with everyone. In this context, although you may share your experience as you were excited at the moment of discovery, what you are moved by and the message you want to tell will only be received as someone else's for the other person. <b>Therefore, reconstruct the discovery by focusing on its crucial points, creating a flow that effectively delivers your intended message.</b>                        |
| Highlights So Far        |  | You want to share your thoughts with all members. In this context, trying hard to convey, but not sharing the image, can lead to vague and misunderstood discussions. <b>Therefore, recapitulate each time an important turning point in what you have been working on and what triggered your awareness, so that you can share what you have taken so far whenever needed.</b>  |
| Awesome Story            |  | The things you have worked on together have finally taken shape. In this context, when something you have been working on is somewhat successful, you may be satisfied with that stage and end up not pursuing anything more, and it may only be remembered as one activity out of many. <b>Therefore, by designing the activities to become the best activities ever, make sure that when you look back on the process, it will be the best you have ever done.</b> |

### A.3 PATTERNS FOR GENERATE DISCOVERIES AND EXCITEMENT

#### A.3.1 ENDEAVORING STEADFASTLY

Patterns in the group ENDEAVORING STEADFASTLY are shown in Table 8.


Table 8. The summaries of the patterns in ENDEAVORING STEADFASTLY


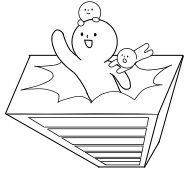
| Pattern Name              | Illustration  | Pattern Summary (Context/Problem/Solution)  |
|---------------------------|---|---|
| A Little Beyond the Limit |    | You are trying to create something interesting together. In this context, if you start from what seems achievable based on past experience, it may be difficult to create something exciting and interesting. <b>Therefore, by setting a goal that is a bit challenging but exciting, that cannot be achieved without all the people working hard, create a situation in which people have to work hard to achieve it.</b>  |
| Struggle Together         |    | You are trying to create something together with the gathered member. In this context, if an atmosphere is created in which those with higher years or more experience must lead the process well, they may become reticent to each other and not be able to create together. <b>Therefore, by showing your struggles and desperate efforts to create together, build a sense of unity that encourages everyone participating in the project to work together to realize the goal of the project.</b> |
| The Most Energetic One    |  | You want to create something better together with all the participants. In this context, in the process of working together, if you try to let someone else do it, thinking that someone else will surely work on it, it may be difficult to reach the realization of the project. <b>Therefore, by being the first to run headlong toward a challenge and working on it more hands-on than anyone else, engages the people around you with your own enthusiasm.</b>                                  |

#### A.3.2 EXPLOSIVE CREATION

Patterns in the group EXPLOSIVE CREATION are shown in Table 9.

Table 9. The summaries of the patterns in EXPLOSIVE CREATION

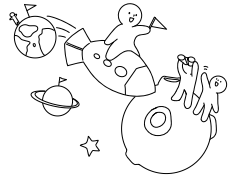


| Pattern Name | Illustration  | Pattern Summary (Context/Problem/Solution)   |
|--------------|---|--|
| Make It Fun  |  | You're trying to create something interesting with all members. In this context, in order to make the discussion more lively, trying to suppress one's own opinions and react to what everyone else is thinking can lead to a situation where you do not enjoy yourself and the discussion is not deepened as much as it could be. <b>Therefore, by expressing what you find interesting by drawing on your interests and domains of expertise, create opportunities to deepen thinking.</b> |

|                          |   |  |
|--------------------------|---|--|
| Ultra Amplifier          |  | You want to generate something that people will find exciting as well. In this context, struggling to generate anything beyond ordinary ideas can prevent the creation of truly exciting concepts. <b>Therefore, delve deeply using metaphors and other techniques, persistently proposing ideas until they transform into something everyone finds interesting.</b>   |
| Going Beyond the Ceiling |  | You desire to create something considered excellent by those around. In this context, it can be hard to know what's truly excellent based on your own experiences, so you might feel satisfied when things seem okay from your perspective, but that could limit your ability to achieve even better outcomes. <b>Therefore, by seeking the wisdom of experts, incorporating all the experiences at hand, and making deliberate efforts to maximize quality, create an experience that can dramatically transform the current perception of the world.</b> |

### A.3.3 EXPANDING BOUNDARIES

Patterns in the group EXPANDING BOUNDARIES are shown in Table 10.

Table 10. The summaries of the patterns in EXPANDING BOUNDARIES

| Pattern Name               | Illustration  | Pattern Summary (Context/Problem/Solution)  |
|----------------------------|---|---|
| Far-point Pioneer          |  | You're looking to engage in new activities. In this context, if you are just trying to expand within the familiar areas that have worked well in the past or are related to them, it is difficult to have a greater impact beyond what you have worked on before. <b>Therefore, by expanding the range of activities in new areas of attraction and practice, make it possible for more people to know how interesting your activities are.</b> |
| Cross-border Collaboration |  | You want to spread your activities to the wider world. In this context, interacting only with those related to your activities won't significantly impact the broader world. <b>Therefore, by sharing your vision with those engaging in interesting activities in other areas and co-creating with combining the strengths of each, expand the "world" that is to be realized as a significant influence on the society as a whole.</b>        |
| Future Generating Actions  |  | You've been developing step by step to realize an exciting "world". In this context, no matter how attractive the activity, just working on it may end as a momentary endeavor without influencing the future. <b>Therefore, seriously consider how to make your activities meaningful for the future, and create a system that continues to impact even in your absence.</b>   |