

Fun Language: Sharing the “Fun” to Motivate People to Do Daily Activities

TAKASHI IBA, Faculty of Policy Management, Keio University

AYAKA YOSHIKAWA, Faculty of Environment and Information Studies, Keio University

HITOMI SHIMIZU, Faculty of Policy Management, Keio University

This paper proposes a method to organize and share elements of enjoyment in activities, the Fun Language. Fun Language is a language in which the elements of enjoyment within a targeted field of activities are organized into small units, and are named. Comparing to a pattern language, which aims to generate quality in a design, the purpose of a Fun Language is to motivate people to do the activity. This paper discusses the similarities and differences between these two languages, and presents examples of programming, reading, home farming, and cooking. Furthermore, the purpose and aim of the Fun Language is discussed, examining psychologist Mihaly Csikszentmihalyi’s Flow theory for lively and creative activities.

1. Introduction

When one is engaging in the act of creating or doing something, there can be a gap in how the act is perceived from the outside, and the inside (what the act really means to the person who is doing it). For instance, when someone is cooking, the purpose of that act may solely be to prepare food in order to get nutrition, or the purpose may be to enjoy the act of cooking as a hobby. Similarly, one may engage in the activity of shoemaking because it is their job, while others may enjoy shoemaking as an art form. Hence, the purpose or the meaning of any activity will differ depending on how and who is doing it.

Let’s say that someone enjoys programming. That person (most likely) likes programming because he/she has discovered a certain “enjoyment” behind creating a program; it is not that they simply enjoy the act of typing in commands and variables into the keyboard. This is at least the case with Linus Torvalds, the creator of the Linux OS who states that, “to the outside, it (programming) looks like the most boring thing on Earth,” but that “to somebody who does it, it’s the most interesting thing in the world.” He also describes programming as, “a game much more involved than chess, a game where you can make up your own rules and where the end result is whatever you can make of it” (Torvalds & Diamond, 2001, p.73). Torvalds states the reason behind his love for programming in the following statement.

“What makes programming so engaging is that, while you can make the computer do what you want, you have to figure out *how*. I’m personally convinced that computer science has a lot in common with physics. Both are about how the world works at a rather fundamental level. The difference, of course, is that while in physics you’re supposed to figure out how the world is made up, in computer science you *create* the world. Within the confines of the computer, you’re the creator. You get to ultimately control everything that happens. If you’re good enough, you can be God. On a small scale” (Torvalds & Diamond, 2001, p.73).

Of course, what is stated above is not the only enjoyment of programming. There are people who have their own other ways of enjoying it. However, there are also many people who would agree with

Torvalds' description and feel the same way¹, including one author of this paper, Iba, who has enjoyed programming from a young age.

However, for people who are completely unfamiliar with the enjoyment of programming, this way of thinking is extremely surprising and new. For instance, the other two authors of this paper (who do not like programming and have never done it outside of introductory courses) were surprised to learn that some people enjoy programming for this reason, with reactions such as, "I didn't know programming could be thought of that way" and "I might have enjoyed programming classes more if I had this perspective." Indeed, the feelings behind the people who engage in a certain activity are invisible to those who have little or no experience of it.

The fact that there can be various meanings / motivation for the same activity indicates that it is possible for people to change their own meaning / motivation for the activity as well. Therefore, if the ways to enjoy a certain activity is shared in a way that people can access them, many people will have a chance of enjoying that activity for themselves. This can be said about various activities in various fields. This paper proposes a method to share the elements of enjoyment in a certain activity, which we call, the Fun Language.

A Fun Language contains the "ways of enjoying" within a targeted field of activities, which are organized into small units, and are named. This structure is similar to that of a pattern language. We believe that in any domain, a pattern language and Fun Language should be created together as a set, in order to support both the quality of the design itself, as well as the quality of experience for the people engaging in the process of creating/doing the design.

In what follows, the concept of the Fun Language is proposed first of all, by examining its differences with the pattern language. As an example of a Fun Language, the fun languages for reading, home farming, and cooking are introduced. Further on, the implication and future direction of the Fun Language is discussed, using psychologist Mihaly Csikszentmihalyi's Flow theory.

2. Fun Language

Fun Language is a collection of perspectives and actions that allows one to "enjoy" a certain activity. The term Fun Language, like pattern language, points to both the methodology and the languages themselves.

In practice, a Fun Language will be created for a certain target domain (Fun Language for ...) that the author chooses to focus on. A Fun Language is comprised of ways to enjoy a certain activity, organized into small units, which we call "Fun". Each "Fun" unit contains information about when and how to enjoy that activity, and is named with a "Fun Word". This structure is much similar to that of the pattern language, which is comprised of various patterns that each has a pattern name.

If the structure of the Fun Language and the pattern language is so similar, is it necessary to differentiate them as two different types of languages? The answer is that, despite their similarities, the two have distinct differences that indicate they should be considered as two separate things. Fun Language and pattern language have three main differences; their target, format, and purpose.

2.1 Fun Language targets the state of mind of the people

The first difference between the Fun Language and pattern language is in their target. A pattern language is created to function as a common language to enable a good design. In other words, the

¹ The perspective that creating a program is much like creating a virtual world, has been discussed by various people. For instance, Terry Winograd, in the preface of his work, *Bringing Design to Software* (Winograd, 1996) focuses on the virtuality of "the world which software user perceives, acts, experiences, and responds" and states that "software is not just a device with which the user interacts; it is also the generator of a space in which the user lives. Software design is like architecture: When an architect designs a home or an office building, a structure is being specified. More significantly, though, the patterns of life for its inhabitants are being shaped" (Winograd, 1996, p.xvii).

pattern is targeted to change the *product* itself that is being constructed/created. On the other hand, a Fun Language focuses on the feelings of the *people* who are doing the constructing / creating.

Interestingly, Christopher Alexander, who created the pattern language method and emphasized the importance of creating “quality without a name” in towns and buildings, does not mention anything about the “feelings of the people” that create the towns and buildings. To be more specific, Alexander does talk about how the people who participate in the construction process put in their feelings into the buildings, and that people’s comfort in living spaces is important (Alexander, 1979; Alexander, et al., 1985; Alexander, 2002), but he makes no statements about the people during the construction process itself. This fact is not surprising, however, since Alexander is an architect, not a psychologist. The same can be said about patterns in the software field (Beck and Cunningham, 1987; Gamma, et al., 1995).

For Fun Language, however, the target is in the feelings of the people who engage in an activity. That is, the focus is on “how to make a certain activity enjoyable.” As a result, a Fun Language does not deal with the *product* of the activity. The underlying intention is that enjoying the process of creating / doing something increases the *person*’s effort and motivation for the activity, which should naturally create better results. This is why the Fun Language focuses on the psychological side of the creating / doing process.

2.2 There is no “Problem” to be solved in a Fun Language

The second difference between a Fun Language and a pattern language lies in its format. A pattern in a pattern language consists of a *Context* in which a certain *Problem* occurs, and presents a *Solution* to solve that situation as well as the resulting *Consequence*. On the other hand, in a Fun Language, there is no *Problem* to solve. Instead, it simply describes a *Context* in which a *Solution* is enacted, which leads to a certain *Consequence*. More precisely, the term “solution” implies that there is a problematic situation to begin with, so it should be more suitable to use the terms *Context*, *Action*, and *Consequence*.

The importance of having a *Problem* statement in a pattern language has been discussed by Alexander and his definition of *design*. According to Alexander, design is an act in which one creates a *form* that *fits* a certain situation (Alexander 1964). More specifically, every environment has various forces that exist within them, which work together to create a conflict, and a design is something that should *solve* that conflict and create harmony (Alexander, 1979).

On the other hand, each unit of Fun in a Fun Language does not have any *problem* to be solved. This is because each Fun suggests a certain way to enjoy something, not a solution to solve a problematic situation; even if one fails to take that action, no problem will occur. Of course, if there is no Fun at all in an activity, there will be the problem that the act has no excitement or entertainment, which may cause the person to feel unmotivated about engaging in that activity. However, this problem (that there is no motivation), is a psychological one and is not a result of conflicting forces, which suggests that it is completely different from the *Problem* statements in pattern languages.

Our current proposal of the form of Fun Language is as follows: Context, Perform, (Resulting Forces), and Consequence. It means that, when a person performs what is described in a fun, new forces will be added to the context, and then different consequence will happen. Figure 1 compares it with the form of Pattern Language: Context, (Forces), Problem, Solution, and Consequence.

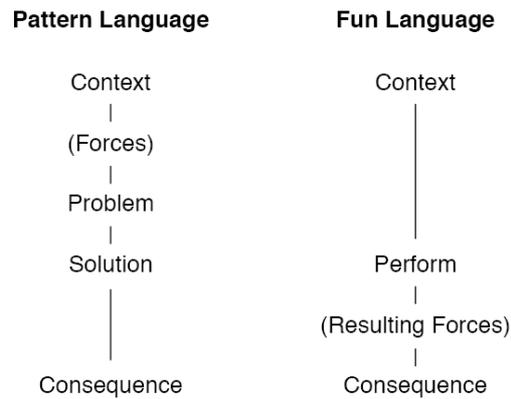


Fig 1. Difference of Forms of Pattern Language and Fun Language

2.3 Fun Language enhances the “quality of experience” of the people

The third difference between Fun Language and pattern language is the purpose of the languages. The purpose of pattern language is to generate quality in an object that is produced through a process of constructing /creating. Alexander calls this a “quality without a name,” and created a pattern language to generate this quality (Alexander, 1979). On the contrary, the purpose of the Fun Language is to enhance the “quality of experience” of the people who is engaging in a certain activity (including constructing and creating a design).

In a pattern language, the people involved are merely a component; it is by creating an output with the “quality without a name” that the people involved can gain enjoyment. The motivation of those who are involved in the designing / constructing process is born through the desire to achieve the “quality without a name” in their final output. This approach, though effective for achieving quality results, is not directly effective in motivating people’s participation in the process.

On the other hand, Fun Language directly contributes to raising people’s motivation to participate in an activity. It helps even those who are inexperienced to grasp the fun and enjoyment of the certain activity. Once a person is able to experience the enjoyment and develop his/her own motivation, he/she will be more likely to commit to that activity with more passion. Hence, the purpose of the Fun Language is to enhance people’s “quality of experience” by suggesting ways to find enjoyment in an activity. When one discovers an element of “fun” in an activity, it gradually leads to “enjoyment”, which then develops into a more long-term feeling of “joy”.

To summarize, Fun Language is similar to pattern language in that it contributes to the generation of “quality” by using a common language to promote communication and thinking, but differs in terms of its target, format, and purpose. The following section will introduce an examples of Fun Language, the Fun Language for reading, home farming, and cooking.

3. Examples of Fun Language

We here present three examples of fun language.

3.1 Fun Language for Reading

The first example of fun language is a fun language for reading:

➤ **Book the Date**

It's such a pity to postpone those dear books, so sometimes reserve the whole day for the book and spend the day in luxury. Block the day by actually writing "Reading Day" in my schedule book, turning down plans by saying "Sorry, I already have plans with Hemingway", as a matter of fact.



➤ **Brain Workout Rush**

Some days when I'm feeling ambitious, I read as many books as I can, packing in the maximum amount of information that my brain can handle, and think on and on about everything I take in. After I've organized it, absorbed it, and got an understanding in my head, I get a rush similar to the boost in confidence after an intense work out: tired but refreshed. It's super effective when I have something on my mind, or when reaching to a dead end.



➤ **Bookstore Supporter**

I make it my personal rule that when I come across a really great book at a bookstore, I buy it on the spot. Even if its a little heavy or a tad bit pricier than the one sold online, I buy it there as a "thanks for letting me meet my new beloved book". Oh how good it feels to be a bookstore patron!



3.2 Fun Language for Home Farming

The second example of fun language is a fun language for home farming:

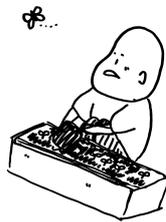
➤ **A Bit of Everything**

Planting a little bit of many kinds of vegetables and fruits (one pot a plant, two pots for seeds) makes watering a pleasure with changes like budding, blooming, and bearing fruit coming up everyday. Since harvest times differs for each plant, you have a treat of harvesting something everyday.



➤ **Watering Mindfulness**

Watering time (when it gets hot, or in the evening) is the time when you can clear your head and relax in your busy life. You can obtain the time by thinking that watering is essential for the plants to keep growing or not withering. Just watching the plants and soil without anything in your mind will be a precious time to spend the day cheerful.



➤ **Rain Day Treat**

Rain usually dampens the day, but with plants on your mind, it turn into a welcome rain. Of course it's good for the plants, but the best part is, **NO NEED TO WATER THEM TODAY!** Even if rain is bothersome and dull for us, we can in a way balance the merit/demerit by sharing it with our plants. How wonderful is it to feel yourself as part of nature on rainy mornings?



3.3 Fun Language for Cooking

The third example of fun language is a fun language for cooking (Shimizu et al., 2017):

➤ **Chef's Privilege**

When cooking for everyone, you, a “chef” could appreciate having a little treat. Tricks and privileges that you have because you are in the kitchen fill you with giggles, making you want to be in the kitchen and make food for people. Now, which plate should you put the “bingo” /prize in today? For example, on weekends, drink wine from a glass while making pasta; sneak in one lucky egg roll filled with cheese; when cooking with friends, take sneak-peak bites of the food before it gets to the table.



➤ **Motivation Switch**

Even if you want to cook, you tend to become lazy without a trigger. In situations like that, use my little spell to turn me into cooking mode. If you can get my mind ready before you stand in the kitchen, you know I'll have a good time in the kitchen. For example, actually do warm ups to pump up your blood flow before cooking; put on your favorite apron and switch to your "cooking mode"; wash your face before going into the kitchen to freshen up your mind.



➤ **Kitchen Fantasy**

When cooking curry, the spices led you to want to go to India. You hesitated for a while, but you followed and turned the music on. Your body is dancing without control. You are stirring the curry to the rhythm. You are feeling like you are in India. Music, clothes, the entrance can be anything. It counts on you to enjoy the world, or hesitate and not get absorbed in it. For example, dance to Indian music as you make curry and throw in the spices rhythmically; make Chinese food while wearing a china dress; listen to the soundtracks of "The Nutcracker" as you make a yule log cake.



4. Discussion

In order to discuss the goal of the Fun Language, this section will examine theories by Mihaly Csikszentmihalyi, a psychologist who engaged in research about enjoyment and creativity. Csikszentmihalyi conducted interviews to people who engaged in creative activities in various fields to find out what their mental states were like and found the following commonality.

“What is extraordinary in this case is that we talked to engineers and chemists, writers and musicians, businesspersons, and social reformers, historians and architects, sociologists and physicians — and they all agree that they do what they do primarily

because it's fun. Yet many others in the same occupations don't enjoy what they do. So we have to assume that it is not *what* these people do that counts but *how* they do it. Being an engineer or a carpenter is not in itself enjoyable. But if one does these things a certain way, then they become intrinsically rewarding, worth doing for their own sake." (Csikszentmihalyi, 1996, p.107-108)

As Csikszentmihalyi states, what sets apart people who enthusiastically engage in activities from those who don't, is that they are able to make what is originally not enjoyable, into something that they enjoy. Csikszentmihalyi also conducted research on chess players, rock climbers, dancers, and composers, who work for joy rather than just for money or fame. Through his research, he found that the state of being completely engaged in an activity brings satisfaction and motivation, and called that condition a state of "flow".

"After examining our interview and questionnaire results, we concluded that people who enjoy what they are doing enter a state of "flow": they concentrate their attention on a limited stimulus field, forget personal problems, lose their sense of time and of themselves, feel competent and in control, and have a sense of harmony and union with their surroundings. To the extent that these elements of experience are present, a person enjoys what he or she is doing and ceases to worry about whether the activity will be productive and whether it will be rewarded." (Csikszentmihalyi, 1975, p.182)

The reason why the experience mentioned above is called "flow" experience, is because it "is the term many of the people we interviewed had used in their descriptions of how it felt to be in top form: 'It was like floating,' 'I was carried on by the flow.'" (Csikszentmihalyi, 1990, p.40). Once one enters this "holistic sensation that people feel when they act with total involvement" (Csikszentmihalyi, 1975, p.36), one would feel more enjoyment in that activity, which gives them more satisfaction and motivation to engage in that activity. In other words, the activity will become more intrinsically rewarding, and become autotelic. The term "autotelic" is comprised of the Greek word "auto", which means "self," and the Greek word "telos," which means "purpose," and together means "self-fulfilling."

When one is in a state of "flow", the person goes through growth and change. During a state of "flow", one may feel that he/she is "designing or discovering something new" (Csikszentmihalyi, 1996, p.108), but in fact at the same time, there is a "loss of the self" that occurs, which allows one to transcend their boundaries. In other words, as one's concentration and engagement heightens, the sense of "self" becomes lost from the mind.

In one of his works, Csikszentmihalyi mentions the following words of a climber: "It's a Zen feeling, like meditation or concentration. One thing you're after is the one-pointedness of mind. You can get your ego mixed up with climbing in all sorts of ways and it isn't necessarily enlightening. But when things become automatic, it's like an egoless thing, in a way" (Csikszentmihalyi, 1990, p.63). Furthermore, he states, "when not preoccupied with our selves, we actually have a chance to expand the concept of who we are. Loss of self-consciousness can lead to self-transcendence, to a feeling that the boundaries of our being have been pushed forward" (Csikszentmihalyi, 1990, p.64).

As a result, "after an enjoyable event we know that we have changed, that our self has grown: in some respect, we have become more complex as a result of it" (Csikszentmihalyi, 1990, p.46). Similar

things have been said by writers Haruki Murakami² and Michael Ende³ about their creative processes, and the following passage from Jiro Kawakita is closely related as well.

“A creative act involves the creation of the ‘object’ itself, but also generates change within the individual who is engaging in the creation. In other words, the ‘subject’ is also being created. A creation that is done one-sidedly is not truly a creative act. The more creative the act is, the more remarkable the change within the subject will be.” (Kawakita, 2010)

For this reason, when one engages in activities and enter a state of flow, they are able to feel enjoyment in the process itself, which leads to the feeling of joy in their lives.

In this sense, being in a state of flow is highly appealing, but this is not something that everyone can easily accomplish. According to Csikszentmihalyi, “most people need some inducement to participate in flow activities, at least at the beginning, before they learn to be sensitive to intrinsic rewards” (Csikszentmihalyi, 1975, p.14). This is due to the fact that “enjoyment happens only as a result of unusual investments of attention” (Csikszentmihalyi, 1990, p.46).

“Many of the things we find interesting are not so by nature, but because we took the trouble of paying attention to them. Until one starts to collect them, insects and minerals are not very appealing. Nor are most people until we find out about their lives and thoughts. Running marathons or climbing mountains, the game of bridge or Racine’s dramas are rather boring except to those who have invested enough attention to realize their intricate complexity.” (Csikszentmihalyi, 1997, p.128)

Hence, we have not found the enjoyment of every activity that we take part in. We enjoy certain activities that we find enjoyment in, while we do not for many other activities throughout our lives.

“Without enjoyment life can be endured, and it can even be pleasant. But it can be so only precariously, depending on luck and the cooperation of the external environment. To gain personal control over the quality of experience, however, one needs to learn how to build enjoyment into what happens day in, day out.” (Csikszentmihalyi, 1990, p.48)

This is exactly where the Fun Language comes into play. Csikszentmihalyi says that even “Mowing the lawn or waiting in a dentist’s office can become enjoyable provided one restructures the activity by providing goals, rules, and the other elements of enjoyment to be reviewed below” (Csikszentmihalyi, 1990, p.51). Such “elements of enjoyment” are what each Fun in a Fun Language describes. By defining various Fun (elements of enjoyment) in various fields, we have more potential of enjoying many activities in our lives. Csikszentmihalyi proposes an approach to practice getting into the state of flow in what follows.

“How can you get more enjoyment from brushing your teeth? Taking a shower? Dressing? Eating breakfast? Getting to work? Take the simplest of these routines and experiment with

² “The adventure that the main character goes through is simultaneously the adventure that I as the writer go through. When I am writing, I feel the same things that the main characters feel, and go through the same trials as them. In other words, from the time I start writing a book to the time I finish writing the book, I become a completely different person” (Murakami, 2011).

³ “This is something that I say often, but when I write, it is as if I am going through an adventure. Even I don’t know where that adventure will take me and how it will end. Therefore, in every book I’ve written, I myself became a different person by the time I finished writing it” (Ende, 2009).

engineering its flow potential. ... If you take this question seriously and try to answer by testing various alternatives, you will be surprised at how much fun brushing teeth can be.” (Csikszentmihalyi,1996, p.350)

While Csikszentmihalyi suggests taking this approach to practice discovering the enjoyment in everyday life, the Fun Language takes a more direct approach. That is, to collect various elements of enjoyment from various people and organize them into a language that can be shared. Of course, not all Fun will be agreeable by everyone, but there should be a few out of each collection that readers will find interesting and worth practicing. When one learns about a new Fun in a domain they are not familiar with, it can become a significant hint that allows them to find enjoyment in that activity. Furthermore, when one finds an overlap with what they already practice and what is written in a Fun Language, it will be easier for them to communicate about that concept with other people, and to also find people with common interests.

In this way, as one takes in more and more elements of enjoyment using a Fun Language, that person will grow to find the activity more appealing and motivating. That in itself is remarkable, but an additional effect that can be expected, is that using a Fun Language in one domain leads the reader to enjoy other activities as well.

“After you have practiced improving the quality of experience in a few everyday activities, you might feel ready to tackle something more difficult —such as a hobby or a new interest. Eventually you will master the most important skill of all, the metaskill that consists in being able to turn any activity into an occasion of flow. If the autotelic metaskill is developed enough, you should be able to enjoy any new challenge and be on the way to the self-sustaining chain reaction of creativity.” (Csikszentmihalyi,1996, p.350)

Hence, developing the ability to enjoy a daily life activity leads to a more enjoyable, fulfilling life. Csikszentmihalyi adds, “to control attention means to control experience, and therefore the quality of life” (Csikszentmihalyi, 1997, p.128). A Fun Language, therefore, is a media to make a certain activity an enjoyable experience, and to also enhance people’s quality of life.

5. Conclusion

This paper proposed the concept of the Fun Language, and presented three examples of Fun Language. The purpose and aim of the Fun Language was discussed, using theories by Csikszentmihalyi. Whether the “elements of enjoyment” discussed in this paper really has an effect on motivation remains a question. The authors of this paper along with the people around them have experienced a definite change in their mindset, but the question of effectiveness is something to be tested in future studies.

To conclude this paper, let us talk about an episode from Linus Torvalds once again. Torvalds describes his childhood, long before he began creating the Linux in the following: “It probably won’t surprise anyone that some of my earliest and happiest memories involve playing with my grandfather’s old electronic calculator” (Torvalds & Diamond, 2001, p.6). Influenced by his grandfather who was a professor of statistics, Torvalds enjoyed calculation from a young age.

“I remember having tons of fun calculating the sine of various random numbers. Not because I actually cared all that much for the answer (after all, not many people do), but because this was long time ago, and calculators didn’t just give you the answer. They *calculated* it. And they blinked a lot while doing so, mainly in order to give you some feedback that “Yes, I’m still alive, and it takes me ten seconds to do show how much work

I do.” That was fascinating. Much more exciting than a modern calculator that won’t even break into a sweat when doing something as simple as calculating a plain sine of a number. With those early devices you knew that what they did was *hard*. They made it very clear indeed.” (Torvalds & Diamond, 2001, p.6)

As stated in the quote above, his fascination for computers began with his fascination over the simple fact that “they blinked a lot while doing so”. He later develops passion for programming by realizing that it is like creating your own world, and eventually brought about a significant worldwide movement. What this example shows us is that a sense of “fun”, even if seemingly insignificant, can be a starting point that triggers something significant.

Torvalds states, that what we are headed towards is “Past the information society, the entertainment society” (Torvalds & Diamond, 2001, p.246). That transformation is fueled by the three driving factors that motivate people: first “survival,” second “social relations,” and third “entertainment.” The book in which he reflects on his life is entitled *Just For Fun*: what a fitting title indeed, to represent a world where “entertainment” is wealth in itself.

Just For Fun – It is simply through having Fun that we develop Enjoyment, and furthermore, Joy in our lives.

Acknowledgements

The Fun Language for Cooking mentioned in this paper was created through a collaborative research between Iba Laboratory, Keio University and Cookpad, inc. We thank Shiori Shibata as a member of our project and Takuji Ikeda and Ryo Katsuma as our research partners, as well as Akimitsu Sano for giving us the opportunity to conduct this collaborative research. We would also like to thank Konomi Munakata for drawing wonderful illustrations for fun words and all interviewees for sharing their “seeds of fun” for this project.

References

- Alexander, C. (1964) *Notes on the Synthesis of Form*, Harvard University Press.
- Alexander, C., Ishikawa, S., Silverstein, M., Jacobson, M., Fiksdahl-King, I. and Angel, S. (1977), *A Pattern Language: Towns, Buildings, Construction*, Oxford University Press, New York.
- Alexander, C. (1979), *The Timeless Way of Building*, Oxford University Press, New York.
- Alexander, C., Davis, H., Martinez, J. and Corner, D. (1985), *The Production of Houses*, Oxford University Press, New York.
- Alexander, C. (2002) *The Nature of Order: An Essay of the Art of Building and the Nature of the Universe, Book 1: The Phenomenon of Life*, Center for Environmental Structure.
- Beck, K. and Cunningham, W. (1987), “Using pattern languages for object-oriented programs,” *OOPSLA-87 Workshop on the Specification and Design for Object-Oriented Programming*, Florida.
- Csikszentmihalyi, M. (1975) *Beyond Boredom and Anxiety: Experiencing Flow in Work and Play*, Jossey-Bass.
- Csikszentmihalyi, M. (1990) *Flow: The Psychology of Optimal Experience*, Harper & Row.
- Csikszentmihalyi, M. (1996) *Creativity: Flow and the Psychology of Discovery and Invention*, Harper Perennial.
- Csikszentmihalyi, M. (1997) *Finding Flow: The Psychology of Engagement with Everyday Life*. Basic Books
- Ende, M. (2009) *Monogatari no yohaku: ende ga saigo ni hanashita koto [Margins in a Story: Ende’s Last Words]*, in Japanese, Iwanami Shoten, Publishers.
- Gamma, E., Helm, R., Johnson, R. and Vlissides, J. (1995), *Design Patterns: Elements of Reusable Object-Oriented Software*, Addison-Wesley, Boston.
- Harasawa, K., Miyazaki, N., Sakuraba, R. & Iba, T. (2015) *A Tale of Pattern Illustrating*, CreativeShift Lab.
- Murakami, H. (2011) *Yume wo miru tameni maiaasa boku wa mezameru no desu [I Wake up in Order to Dream: Interview series with Haruki Murakami 1997-2011]*, in Japanese, Bungeishunju Ltd.

- Iba T., Nakano H., Eto K., Nakanishi Y., Takenaka H., Hanyuda E. (2013) *Pattern Language: souzouteki na mirai wo tsukuru tamenno gengo [Pattern Language: Language for the Creative Society]*, in Japanese, Keio University Press.
- Iba, T. & Yoder, J. (2014) “Mining Interview Patterns: Patterns for Effectively Obtaining Seeds of Patterns.” *10th Latin American Conference on Pattern Languages of Programs*.
- Iba, T. and Iba Lab. (2015), *Pattern Illustrating Patterns: A Pattern Language for Pattern Illustrating*, CreativeShift Lab, Yokohama.
- Iba, T. (2016) “Pattern Language 3.0 and Fundamental Behavioral Properties,” Peter Baumgartner, Tina Gruber-Muecke, Richard Sickinger (Eds.), *Pursuit of Pattern Languages for Societal Change. Designing Lively Scenarios in Various Fields*. Berlin: epubli, pp.152-176 pp.200-233
- Iba, T., and Isaku, T. (2016) “Creating a Pattern Language for Creating Pattern Languages: 364 Patterns for Pattern Mining, Writing, and Symbolizing,” *23rd Conference on Pattern Languages of Programs (PLoP2016)*.
- Kawakita, J. (2010) *Souzousei towa nanika [The Definition of Creativity]*, in Japanese, Shodensha Co., Ltd.
- Shibata, S., Kogure, S., Shimizu, H., Iba, T. (2016) “Pattern Symbolizing Patterns: Showing the content and value by expressions to encourage intuitive comprehension,” *23rd Conference on Pattern Languages of Programs (PLoP2016)*.
- Shimizu, H., Ayaka, Y., and Iba, T. (2017) “Cooking Fun Language: Sharing the hidden Fun of cooking,” in *the Conference on Pursuit of Pattern Languages for Societal Change (PURPLSOC2017)*.
- Torvalds, L. & Diamond, D. (2001) *Just for Fun: The Story of an Accidental Revolutionary*, Harper Collins.
- Winograd, Terry (eds) (1996), *Bringing design to software*, Addison-Wesley Professional.