Empowerment Based Co-Creative Action Research

Towards A World of Possibilities for Sustainable Society

Tokie Anme, PhD
Editor

Introduction

This book was designed for those who feel that they can do something to improve society. Is it enough to be swept away during major changes in society, such as climate change, resource depletion, poverty and social unrest, and the spread of infectious diseases? If I want to do something to make a difference for the better world, what is an effective method?

Action research based on empowerment is a tool to steadily support a step-by-step approach on the path to change society. In this book, we focus on **co-creative action research** that we create together, among the many kinds of action research methods. This is because the realization of a sustainable society, through **SDGs** (Sustainable Development Goals), is based on empowerment that draws out the power of the involved and produces the greatest energy for change.

Empowerment is to give people dreams and hopes, encourage them, and bring out the wonderful power of life that they originally have.

Everyone is born with great power. And you can continue to exert great power throughout your life. Empowerment is to bring out that wonderful power. Just as gushing out from the spring, it is critical to bring out the vitality and potential of each person.

In practices such as health, medical care, welfare, education, psychology, administration, management, and community development, the wonderful potential that each person originally has is brought up and manifested, and through activities, can create positive change for the development of people's lives and society. We will make use of it. In addition, in groups such as organizations and communities, the vitality and abilities hidden in each person are effectively drawn out, and this power is used as energy to support the growth of people and the development of the community. This is the empowerment required of organizations, communities, and people.

This book is an introduction to the method of action research that creates innovation based on the theory and technology of empowerment. Aiming for a sustainable society, we will outline a concrete method of creating positive change together with people from various positions based on practical examples.

It is a technique that can be used by anyone who wants to improve society, such as all practitioners, researchers, and students involved in health, medical care, social service, education, psychology, administration, management, town planning, etc.

Recognizing the diversity of various people, and utilizing empowerment and action research methods toward a society where everyone of us shines, we will realize the goals of a sustainable society, the SDGs.

This book consists of theory and practice. The theory section outlines the theory and basic techniques of empowerment and action research. It describes the current state of society that requires action research and empowerment, the basics of empowerment to be utilized in action research, the method of action research based on empowerment, the evaluation of action research, and provides tips for effective action research.

In the practical section, concrete examples of action research in various practices such as community development, organization development, human resource development, child-rearing support, dementia prevention, disaster prevention, multidisciplinary collaboration, international support, etc. are given, and their application methods and tips. In all cases, the empowerment model design will clarify the whole picture, built on the four pillars of 1) action research story, 2) action research process, 3) action research outcomes, and 4) empowerment tips in action research. This is organized for easy understanding.

It is full of tips for action research rooted in empowerment and "creating a sustainable society through co-creation" that springs from various sites that are close to people. Please apply it to your environment and take action!

We hope that this book will help you to create your own empowerment and empowerment environment.

Tokie Anme, PhD

Contents

Introduction ····· 1

Part I Theory ····· 5

Chapter 1 Why Action Research and Empowerment Now ····· 6

Section 1 Necessity of co-creation for a sustainable society ····· 6

Section 2 What is action research? ····· 6

Section 3 What is empowerment? ····· 7

Chapter 2 Basics of Empowerment for Action Research ····· 10

Section 1 Empowerment principles ····· 10

Section 2 Essential conditions for empowerment ····· 10

Section 3 Types of empowerment ····· 11

Chapter 3 Method of Action Research based on Empowerment ····· 12

Section 1 Action research principles ····· 12

Section 2 Action research process and development stage ····· 12

Section 3 Vision design involving the parties ····· 13

Section 4 Creating a plan for co-creation ····· 14

Section 5 System design for co-creation ····· 15

Section 6 Three elements of action research development ····· 16

Chapter 4 Evaluation of Action Research ····· 18

Section 1 Eight elements of evaluation ····· 18

Section 2 Validity and reliability ····· 19

Chapter 5 Tips for Action Research for Empowerment ····· 21

Section 1 Seven tips for empowerment ····· 21

Section 2 Action research three tips ····· 24

Part II Practice ····· 27
Chapter 6 Creating a Happy Community for Everyone ····· 28
Section 1 Action research story ····· 28
Section 2 Action research process ····· 31
Section 3 Action research outcomes ····· 33
Section 4 Empowerment tips for action research ····· 34

Chapter 7 Children-Centered Community Empowerment ····· 37
Section 1 Action research story ····· 37
Section 2 Action research process ····· 38
Section 3 Action research outcomes ····· 40
Section 4 Empowerment tips in action research ····· 41

Chapter 8 Human Resource Development ····· 43
Section 1 Action research story ····· 43
Section 2 Action research process ····· 45
Section 3 Action research outcomes ····· 47
Section 4 Empowerment tips in action research ····· 49

Chapter 9 Comprehensive Evidence-based Child Care Support Systems ····· 51
Section 1 Action research story ····· 51
Section 2 Action research process ····· 53
Section 3 Action research outcomes ····· 54
Section 4 Tips for empowerment in action research ····· 56

Chapter 10 Internet-based Child Support ····· 58
Section 1 Action research story ····· 58
Section 2 Action research process ····· 60
Section 3 Action research outcomes ····· 61
Section 4 Empowerment tips in action research ····· 62

Chapter 11 Community Library for Intergenerational Activities ····· 64
Section 1 Action research story ····· 64
Section 2 Action research process ····· 65
Section 3 Action research outcomes ····· 67
Section 4 Empowerment tips in action research ····· 68

Chapter 12 Supporting Program for Kindergarten-Primary School Transition ····· 71
Section 1 Story of action research ····· 71
Section 2 Action research process ····· 74
Section 3 Action research outcomes ····· 75
Section 4 Tips for empowerment in action research ····· 76

Chapter 13 Dementia Prevention with Community Volunteers ····· 78
Section 1 Story of action research ····· 78
Section 2 Process of the action research ····· 81
Section 3 The outcome of action research ····· 84
Section 4 The key to empowerment of action research ····· 86

Chapter 14 Disaster Prevention and Education for Leave No One Behind ····· 87
Section 1 Action research story ····· 87
Section 2 Action research process ····· 89
Section 3 Action research outcomes ····· 89
Section 4 Tips for empowerment in action research ····· 90

Chapter 15 Interdisciplinary Collaboration and Robotics Use ····· 92
Section 1 Action research story ····· 92
Section 2 Action research process ····· 93
Section 3 Action research outcomes ····· 94
Section 4 Empowerment tips in action research ····· 97

Conclusion Enhance Co-Creative Action Research for a Sustainable Society ····· 98

Part I
Theory

Chapter 1

Why Action Research and Empowerment Now

Section 1 Necessity of co-creation for a sustainable society

Global issues such as climate change, resource depletion, poverty and social unrest are piled up. No matter where you are born on earth, what should you do to live a safe, prosperous, and happy life? People all over the world need to share their wisdom and take actions together to make a better world.

The United Nations adopted the **Sustainable Development Goals (SDGs)** in 2015 for a sustainable society. These are the goals of 3 areas, 17 goals and 169 targets that 193-member countries will achieve in the 15 years from 2016 to 2030 (Figure 1). Everywhere in the world, everyone is the protagonist, and the mission is to leave no one behind.

Figure 1 Sustainable Development Goals (SDGs)

(United Nation website, 2015)

To realize SDGs, it is essential that everyone in their communities takes the initiative in creating activities together toward a sustainable society.

The subtitle of this book is "Towards a Sustainable Society Created Together." To achieve these, we can use action research and empowerment to realize a society in which each person becomes the leading actor in his or her life, enjoys the differences from others, and feels the joy of living together.

Symbiosis (共生) does not mean just living together. In Buddhist terminology, it is read as "gusho" and means to live together while stimulating each other. However, symbiosis as a Buddhist term is a little different from the common usage. "Symbiosis" is opposed to both "self-existence" which is "existing by oneself," and "dependent on other life" which is "existing by other life." Symbiosis is a state in which oneself and other life are combined, that is, being caused by something else while being present by oneself. The meaning of one's existence becomes clear when there is a partner, and one can recognize oneself only when there is a partner. "Creating a society together" can be imagined as such a state.

In fact, action research and empowerment to improve society have evolved together through practices in which community members participate and work together. Paulo Freire was one of its big founders. Freire, as a Brazilian educator, engaged in action research on literacy education and life improvement in the 1940s and 1960s. He said that it is important for people to work on their own through dialogue to change the status, rather than teaching knowledge unilaterally (Freire, 2011). Freire, who believed in the power of the parties and brought out the power to the maximum, is said to be the father of empowerment practice.

Start with small things. First envision the future with the people living in the local community. Action research can be said to be a process of building **"community co-creative skills"**. While grasping the whole picture from a bird's-eye view, determine the direction, gather the thoughts of the participants, and take some action. Action research for a sustainable society is nothing but the creation of empowerment mechanisms based on the connection and support of people.

Section 2 What is action research?

Subsection 1 Definition of action research

Action research is a word with "research" added to

"activity action". This is a research method that bridges practice, research, and theory. It is a type of study that delves into issues from practical questions and returns them to practice. In close collaboration with the parties, practitioners, and researchers, we plan activities based on relevant issues, analyze the results and utilize them in practice, find issues in practice, and carry out further research and evaluation activities. It refers to activities that are premised on the close connection of research.

In other words, **action research** is an activity that continuously carries out a series of processes of working together with the parties to solve the problems raised by the parties, verifying them, and creating a better society together.

One of the major strengths of action research is that it has the potential to create a new paradigm by grasping issues from a **multi-person standpoint**. In addition to the third person standpoint who observes objectively, which is the basis of research, the second person standpoint directly faces the parties, the first person as a member of the parties, and the strength of utilizing a multi-layered perspective. Being close to the parties and thinking with them opens opportunities to come up with ideas that approach the essence of the solution, such as new perspectives and new methods.

Action research is the process of starting from practice with the parties concerned, researching in practice, and immediately applying the results to practice. We will develop that activity like a circular loop and aim for something better.

It does not end with “task setting” → “practice” → “evaluation”, but further development by repeating “evaluation” → “new task setting based on evaluation” → “practice” → “evaluation” → “new task setting based on evaluation” → ...

It is a process to continue forever.

Subsection 2 History of action research

Historically, it is said that Kurt Lewin systematically introduced it in 1946 as "action research is one of the ways to challenge society to change."

Since then, many researchers and practitioners in various fields have used action research for the purpose of changing society and the environment. The fields are really wide, such as medical care, education, and practice of community activities. In many disciplines related to people's lives and social issues, action research has been improved in each discipline system based on the results of better practice (Herr and Anderson, 2005). They are the foundation for today's action research.

The scope of application of action research has expanded significantly in order to respond to the challenges of globalizing and complex society. It can be widely used in fields such as health, medical care, welfare, education, psychology, administration, management, and community development. It is an activity in which the parties, practitioners, and researchers work together to utilize each other's knowledge and pursue the development of a sustainable society. It can be said to be a "social evolution approach that links practical knowledge and scientific knowledge."

Therefore, in action research, interdisciplinary efforts that transcend the boundaries of various intellectual associations and areas of knowledge will be indispensable in the future.

Section 3 What is empowerment?

Subsection 1 Definition of empowerment

The word empowerment consists of the word power with the prefix em-, which together mean drawing out and demonstrating the potential power within us.

Put simply, it means giving people hopes and dreams, offering them encouragement, and prompting them to generate within themselves the wonderful potential strength to live that everyone essentially has. It is the act of enlivening people, drawing out their power, forming bonds, and developing networks of empathy. By becoming aware of the magnificent power that lies within individuals, organizations, or communities, developing such strengths, communicating and sharing these sentiments, and having them resonate among us, it becomes possible to nurture new ways to work together. In a sense, it is an extremely creative type of power. It is a type of power that triggers the imagination, spreads, and

strikes the true essence of colleagues and organizations like a pulse.

The word empowerment is used in various fields, and, in fact, has different definitions depending on the area in which it is used. To introduce some of them, in education it is defined as intrinsic motivation, experiences of success, a sense of competency, the development of strengths, and self-respect. In the field of social development, it is defined as respect for mankind, belief in the potential capacity of all people, and activities aimed at creating a fair and equal world where those potential abilities can be demonstrated. As to the area of business, it is creative decision-making from the delegation of authority and expanded responsibility. In social welfare, empowerment is defined as the process that a person undergoes to gain greater control over the decision-making and activities that influence a person's well-being (Anme, 2004).

Subsection 2 History

The word empowerment is said to have been used for the first time as a legal term during the seventeenth century, to "give legal power to another person".

It continued to be used in the context of giving rights and authority to others, and was used during the 1950s in activities aimed at improving social positions, such as the civil rights movement, indigenous peoples' rights, and women's rights. People are born with magnificent capacities. To ensure that such capacities do not end without coming abloom due to social limitations, there is a need to deploy various resources in order to improve the conditions to allow them to reach their full potential. These types of efforts have led to movements to promote independent living for people who have handicaps to thrive in society and to self-help group activities for people faced with difficulties to support one another.

As proposed by Paulo Freire, a Brazilian educator and philosopher who proposed empowerment as a civil rights movement, the concept spread in Latin America and developed as a global movement. It has expanded to improving the positions of local municipalities and the disadvantaged, and the term empowerment has been used for its objective to realize a fair and equal society, where people can perform fully to their potential capacity. In these ways, the beginning had meant an escape from a state of a lack of power.

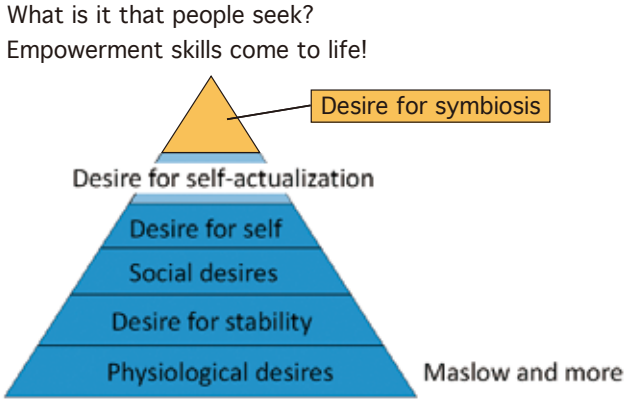
It became an initiative to prompt people to take part in public health and welfare from around 1980 and started to be widely used in the area of business for delegating authority from the 1990s.

Today, the word empowerment applies to the creation of environments that nurture the potential abilities in all people, groups and societies and generates possibilities within them, as well as offer support for realizing their well-being. It is a dynamic way of thinking for developing frameworks while involving all types of resources. It is defined as individuals, groups, or communities being enabled to control their environments, achieve the objectives that they have set, and for individuals and others to learn to be able to fully improve the quality of their lives, or else the process for individuals, groups, or communities to learn to control their lives.

Subsection 3 Theoretical background

People initially have a desire to coexist, to live for the sake of another person. Figure 2 is a revision of the hierarchy of needs that was proposed by Abraham Maslow, who was active in the 1960s.

Figure 2 A revised version of Maslow's five steps of desires (Anme, 2004)



Maslow said that people have five levels of needs, and that their higher requirements can only be fulfilled once those at the lower levels have been met. The most basic needs shown at the bottom of the pyramid are physiological needs, such as eating and sleeping. Above that is the need for safety, to be able to live safely

without concern over security, with social needs for a sense of belonging and a desire for recognition, and self-actualization at the top of the pyramid, to be able to realize a person's full potential.

However, it is known today that even when the lower level needs are not met, there are times when people try to fulfill their needs higher up in the pyramid. A good example is a person who may be poor and lack in food, clothing, and shelter yet dedicate him or herself to helping others. While their physiological needs may not be fulfilled, that person may continue to seek self-actualization.

One way of considering a case of further development in self-actualization is the concept of greater needs. The meaning of a person's existence cannot be understood in a closed world where only self-fulfillment exists. It is possible to gain a firm grasp of the meaning of one's own existence when a person exists for the good of someone else.

While it is a need to coexist that people initially desire, today's reality is that more and more, opportunities to form ties are being lost. Because of that, we are in an era when there is a greater need for empowerment—to develop our power to nurture ties and to generate the strength that we have within us (Anme, 2005).

Chapter 2

Basics of Empowerment for Action Research

Section 1 Empowerment principles

There are eight principles for empowerment:

1. A person chooses his or her own objectives.
2. The person takes initiative and the authority to make decisions.
3. The person considers his or her issues and the ways by which to resolve them.
4. Successes and failures are analyzed as opportunities to learn and build capacities.
5. Inner elements within the person and their supporters are discovered and fortified to change behaviors.
6. The person is prompted to participate in the process of resolving issues to boost their sense of responsibility.
7. Improvements are made to networks for supporting the process of resolving issues and their resources.
8. Motivation is boosted toward improving conditions for the person (such as the achievement of his or her objectives or their well-being).

In other words, the principles for empowerment are based on the individual. It is therefore the role of supporters—experts, superiors at work, or colleagues—to prompt an individual to generate power that oozes from within them and to improve their surroundings to enable that to happen. The individuals that we refer to here include people who are centrally involved, both people and organizations. Supporters mean people or organizations that offer them support.

These principles for empowerment apply not only to individuals but to all people and organizations (Anme, 2007). It is also essential to improve conditions when promoting empowerment in groups of people and organizations such as companies to have their individuals select their objectives and actively participate in taking initiative, the authority to make decisions, and lead the process of considering steps to resolve issues.

Section 2 Essential conditions for empowerment

There are three prerequisite conditions for all three types of empowerment: self, peer, and community. They are:

1. **Hope**: The presence of a visible goal that leads to hope.
2. **Faith**: An individual's ability to believe that they have the capacity to head toward their goal. Self-efficacy and group efficacy (a sense that it is possible for an individual or a group to take approaches toward external matters).
3. **Meaning**: The ability to find meaning in aiming for and working toward a goal.

The important thing is that all three are in place (Anme, 2012a).

Let me give you an example. For example, let's say you are involved in a major disaster. You might get upset and ask, "why me?" or you might want to look away from a difficult situation. Or perhaps you would be overwhelmed with shock and fall into a state of depression or start praying to the gods to save you. But once you've settled down from the initial impact, you'll probably face reality and take some sort of action to try to resolve the issue. What is necessary in order to do that? First you need to have hope for a new life. Next, you believe that you have the power to deal with and do your best. In addition, you can inspire yourself by thinking that it makes sense to work with your peers.

The idea of these three elements can also be used in action research created together. What do you do when you face a big challenge? We will set visions, values, and goals that will open up the future, believe in our strengths, and make efforts to move forward step by step, meaning and trying to overcome them.

It is not limited to crisis situations. Whether it's daily life or work routines, people fall into a powerless state if they lose these three elements. A powerless state

is a condition in which you entertain negative thoughts such as the belief that you are unable to do anything or conviction that there is no meaning to your existence. Social ignorance can be a knife that significantly cuts into the meaning of hope, a sense of efficacy, or the act of making an effort. A state of social ignorance where a person is ignored despite the presence of people around them is strongly associated with a worsening in the person's physical condition (WHO, 2008). There has also been a report that a powerless situation due to abuse or domestic violence can damage the nervous system (Tomoda, 2011).

Section 3 Types of empowerment

There are three types of empowerment: self empowerment, peer empowerment, and community empowerment (Anme,2009).

Self empowerment means bringing out one's own capacities. Examples of this might include the use of a certain method for building motivation or to absorb oneself in a favorite pastime to relieve stress. **Peer empowerment** is to draw out individual capacities through peers, such as by dining together or talking with one another. **Community empowerment** is the leveraging of communities, organizations, the workplace, or their systems to invigorate such groups. Examples of community empowerment include activities undertaken by the entire community to organize something together, such as an event or a local festival.

The combined use and leveraging of these different types of empowerment are essential in order to realize something that is both sustainable and effective, and are called **empowerment synergy models** (Figure 1).

Figure 1 Empowerment synergy model (Anme, 2012)

Chapter 3

Method of Action Research based on Empowerment

Section 1 Action research principles

Co-creative action research is to clarify the values and needs of the parties, identify what the parties can do, and improve the environment.

The values of the parties are the history, culture, and thoughts that individuals, people, and organizations value. Needs are what individuals, people, and organizations are looking for. The values and needs of the parties are often different from the expectations of outsiders. Therefore, the first step in action research is to communicate with parties. Fully discuss what the parties' value and want. In addition, we will try to understand the environment in which the parties are placed, the facial expressions of the parties, the gestures, etc. from nonverbal things. Verbal appeal is sometimes not always a true need. It is necessary to grasp the thoughts behind the words.

As mentioned in Chapter 2, the parties play the leading role by the principle of empowerment. Even in co-creative action research, we will prepare an environment in which the parties understand the issues on their own and continuously carry out activities for solving them on their own.

In other words, the principle of action research is to take into account three points: 1) the values of the parties, 2) the needs of the parties, and 3) what the parties can do (Table 1).

Table 1 Principles of action research

1. Values of the parties
2. Needs of the parties
3. What the parties can do (with sense of belonging, and being together)

For example, action research on community development in a certain area. What kind of community do people in the area want to be? What do they want to achieve? What can they continue to do for their own realization? By discussing these three points with people, deciding the direction, and improving the environment, it will be possible to carry out activities steadily.

Section 2 Action research process and development stage

There are various methods in the action research process. Here, we will introduce the **PDCA cycle** and **OODA loop** as typical examples (Figure 1).

PDCA is an acronym for Plan (plan), Do (execution), Check (evaluation), and Action (improvement), and is one of the methods aimed at steadily solving problems. It has been popular in Japan since the late 1990s. Implement from planning to improvement as a series of cycles. Better results can be obtained by repeating the cycle as many times as necessary. It is effective when team members share issues together and work on them while visualizing planning, execution, evaluation, and improvement.

The OODA loop is an acronym for Observe, Orient, Decide, and Act. Originally, it was devised as a method aimed at solving the problems of pilots who need agile judgment according to the situation. This method is suitable for solving problems such as determining the direction based on observation and making swift decisions and acting when the environment changes dramatically.

Nowadays, there are increasing cases where the PDCA cycle and the OODA loop are linked and used flexibly. Please use them flexibly and adopt each or both depending on what kind of problem, what kind of member, and what kind of environment you are working on.

Figure 1 PDCA cycle and OODA loop

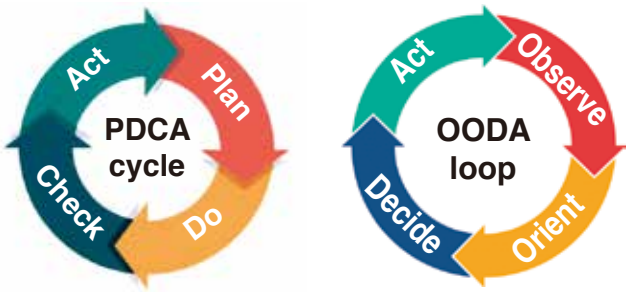
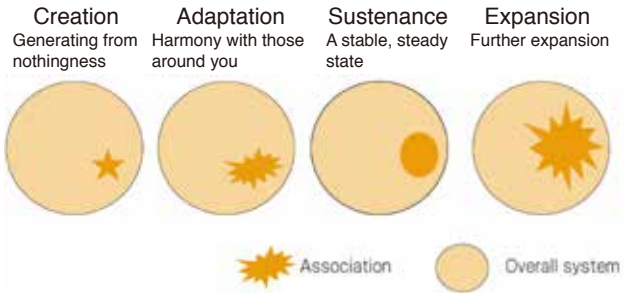


Figure 2 Steps for the development of empowerment (Anme, 2008)



For empowerment, there is a need to reveal current positions while moving forward, during which time a **CASE model** (Creation, Adaptation, Sustenance, and Expansion), used in empowerment program designs throughout the world (Anme & McCall, 2008), can be used as a yardstick (Figure 2). It is effective for the subjects involved in the empowerment to leverage various techniques as they proceed while grasping the current level of development.

The **creation stage** is where new activities and associations are generated where nothing exists. Techniques aimed at starting new activities and relationships are needed, such as techniques for creation, emergence, and innovation.

The **adaptation stage** is for activities and relationships that have been generated to become steady through adjustments with their surroundings. There are needs for techniques for adjusting conditions and coordinating teams, such as techniques for adaptation, coordination, cooperation, and communication.

The **sustenance stage** is for making activities and associations steady. What becomes important here are techniques for maintaining activities and relationships, such as those for implementation, pursuit, and for achieving control.

The **expansion stage** is for expanding activities and associations for further progress. The important techniques are those for the integrated growth of complicated, chaotic subjects, such as techniques for deployment, influence, and integrated techniques.

In order to promote empowerment, it is important to understand current positions that are always growing and changing and to design strategies that match conditions.

Section 3 Vision design involving the parties

In action research, it is necessary to repeat the process of creating paths that lead to the future while involving subjects. The first thing you need is a vision design that involves the parties.

The three steps for building a framework for spreading innovation, 1) creating a vision, 2) responding to need, and 3) gaining wide recognition, all apply in the same way for both actual practice and business. For example, implementation as a small group activity will enable a vision to be created with which everyone can empathize and lead to motivation for full-fledged deployment.

An effective first step for building a framework for empathy is envisioning a desirable venue that is used by the group, where time is spent together with peers. We recommend doing this with the involvement of the relevant persons, such as consumers, residents, patients, and people who use the facility. One method is to replace the word "vision" with something that is easier to imagine, such as "flower of dreams". "Flower of Dreams" generates signs of brightness and hope. It can help people look straight ahead and draw out their desire to give things a try. They will realize that they are a part of society and feel joy in being together with their peers. They will be able to achieve the strength to move forward with clear prospects.

The key words are inclusion, or everyone being

together; empowerment for optimal performance leveraging potential strengths; and innovation, for moving forward toward dreams. By using these three key words, any group, organization, or community can create a foundation that subjects can share. The steps to take are as follows:

(1) Sharing the basic way of thinking among members. For example, this might be about inclusion, empowerment, or innovation. Verify that all members and all teams envision the future based on these key words [the sharing of principles].

(2) Generate ideas for "Flower of Dreams" through a brain storming session. Clearly indicate the period for achieving objectives. The period for achieving a big dream may be set in the distant future while something that is close to reality can be planned for a period that is closer to the present [establishing objectives: creating a vision].

(3) Envisioning the "root" and the "leaves" that will nourish your "flower of dreams". The root represents your current resources, absorbing nutrients from the soil, and the leaves, in which nourishment is produced through photosynthesis, are resources that need to be developed [sorting through existing resources and resources that need to be procured].

(4) Forming the "root" that will support your own "flower of dreams". The root is a path that delivers nourishment to the flower. Sort through the process for realizing your "flower of dreams" as a specific annual plan, ensuring that plenty of nourishment is provided so the flower of dreams can develop from a bud to full bloom [process design: responding to needs].

(5) Compile a rendering of a concept of results that will be clear to everyone. One method is through visualization, such as a specific design to issue an advertisement to the general public when the "flower of dreams" becomes a reality [visualization: gaining wide recognition].

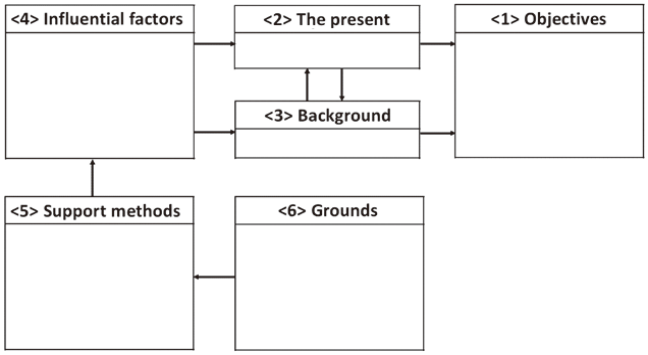
(6) Include feedback obtained from various people. An effective way to do this is to collect and reflect on "S points" that represent strengths and "C points" for challenges from all participants.

(7) Compile all of the above together and create a design for the empowerment process, which will be explained in the next section. A design for the empowerment process is based on a logic model and indicates 1) objectives, 2) the current situation, 3) the background, 4) influencing factors, 5) support methods, and 6) on what grounds.

Section 4 Creating a plan for co-creation

The use of a design for the empowerment process is effective for designing empowerment measures so it reflects the needs and intentions of the subjects (Figure 3). A characteristic of this model is that it allows the path and basis for determining if objectives and support methods will lead to the success of a particular project to be clearly shown. In addition to whether or not a project will be successful, the method (how) and the basis (why) are also to be clarified in a logical manner (Anme & McCall, 2008).

Figure 3 Design for supporting empowerment (Anme, 2005)



These points are sorted in order, in line with the following six steps:

Step 1: What are the intended results?

Step 2: What is the current status?

Step 3: What sort of background is there?

Step 4: What are the primary causes that impact the problems, points of issue, and background factors?

Step 5: What support measures (strategies) bring change to impacting factors?

Step 6: On what grounds?

In Part II: Putting it to Use, we have provided supplementary notes on designs for the empowerment process for all projects. Please refer to each case study for details.

Section 5

System design for co-creation

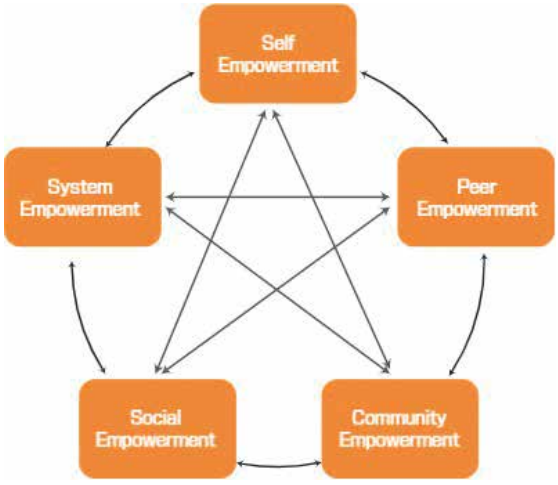
Figure 1 mentioned that there are three types of empowerment: self-empowerment, peer empowerment, and community empowerment, and also touched on combinations between them for synergistic models of empowerment (see P11)

Of the three, community empowerment can further be broken down into three levels. They are community empowerment in a strict sense of the term, social empowerment within markets or communities, and system empowerment for systems and frameworks. There are five elements when self- and peer empowerment are included, and the dynamic association of these types of empowerment is called a dynamic model for empowerment (Figure 4).

Such a dynamic model is a model that demonstrates complicated associations between the five levels of empowerment, with strengthening or weakening between them. They are similar to the five practices written in the Book of Changes which indicate characteristics such as sosho, or relationships, or sokoku, or conflict. Sosho refers to relationships in which elements positioned next to each other help and strengthen each other while sokoku stands for relationships of conflict and rivalry between elements that are positioned two items apart.

The different levels of empowerment—self, peer, community, society, and system—affect each other and are linked in a circle. Thus, they fall under a sosho relationship, while a sokoku association is also present.

Figure 4 Dynamic model for empowerment (Anme, 2012)



Here are some examples of these types of relationships:

(1) An individual who is too strong may weaken an organization.

In an organization where individual independence is given greater weight, it may be difficult at times to make decisions as a group.

(2) The presence of some groups which are too strong may weaken systems as standards.

Strong groups or divisions that assert their claims may sometimes distort the logic of the system as a whole.

(3) A system that is too strong can bind and weaken the strengths of peers with regulations.

Totalitarian control can sometimes eliminate outside groups.

(4) Peers who are too strong may create factions and weaken their society.

Groups of peers who pursue their self-interests may at times pretend to be ignorant toward the well-being of society as a whole.

(5) A society that is too strong may weaken individuals.

It may enforce social norms and restrict individual freedom. The application of these models will allow the true essence of something to be seen in an overall manner and enable the observer to understand changing conditions in a flexible way.

For example, in the practice of healthcare and welfare it can go beyond simply paying attention to the well-being of individuals and enable systematic understanding of the changes in integral relationships while paying attention to the families, peers, organizations, communities, systems and frameworks, culture, or history behind individuals or other relevant factors which correspond to individual growth or aging.

As to corporate environments, in addition to market development, interest has recently been focusing on how to link new technology to empowerment that involves individual consumers, their peers and communities, as, for example, how to make consumers fans of a brand as its partners. Particularly through the development of social networking services using the Internet, attention has been focusing on methods to reach out to individuals through peers and social communities. The use of a

dynamic model for empowerment offers possibilities to create more effective.

Section 6 Three elements of action research development

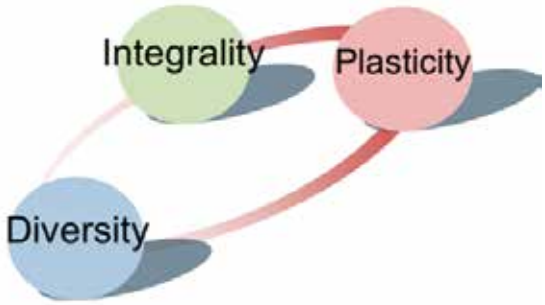
Three elements for developing action research are plasticity, diversity, and integrality (Figure 5).

Plasticity: Plasticity of and adaptability to objectives, procedures, and methods.

Diversity: Inclusion of various possibilities

Integrality: Coherence from a long-term perspective

Figure 5 The three elements of action research development (Anme, 2012)



Plasticity refers to the act of making improvements in a person's plasticity and adaptability to objectives, procedures, and methods. It's a strength that enables them to cope with change. With plasticity, they are able to endure difficulties and always face tasks with a positive attitude. It is a crucial element for action research.

The original meaning of plasticity is to deal with things in a smooth manner and the nature of changing while adapting to conditions. It is a term that is used at various levels, from molecules to internal organs, solid matter, the environment, to the universe.

Among these, three types of plasticity are particularly closely related to the deployment of action research: physical plasticity, cognitive plasticity, and environment plasticity.

Physical plasticity is a characteristic of the physical organs, and it builds associations within the body depending on conditions. It is the modification of the way that things are viewed with cognitive plasticity, and adapting. Environmental plasticity, an ecological nature of the environment, refers to its modification for stability and balance amid changes in various conditions such as climate change and social backgrounds.

These three types of plasticity are actually deeply interrelated. If a person modifies the way that they view things and exercises their cognitive plasticity, adjustment is also made to connections within their physical system. Acting and stimulating the environment will bring change to its conditions.

In other words, it is possible to change any one of the types of plasticity by intentionally modifying any one of the others, regardless of the order, and we often do this unconsciously. But conscious modification now and then can enable further enhancements in the results of our plasticity.

Cognitive plasticity, or changing the way that we see things, is probably the easiest way for us to exercise our plasticity in our daily lives. We can vigorously leverage our cognitive plasticity and adjust the circuitry in our brain for dealing more effectively as we aim to fulfill our objectives or improve our environment to enable easier action.

Diversity is the breadth of our capacity to contain various possibilities. It is a treasure for the next step in development, a principle that exists in a large number of fields such as evolution, genetics, and neuroscience.

Diversity here does not mean the superficial fact that there are people who look different or have different ideas. Recognizing the significance of the existence of various appearances and ways of thinking, and enjoying their value because they are different, that is the breadth of true diversity.

Diversity allows us to cope well with unexpected and inexperienced situations. If you have various opinions, it will be easier for you to come up with various ideas from multiple perspectives that you cannot think of by yourself.

Of course, in a different culture where we spend time with people who have different opinions, it is natural that everyone may feel lost and struggle. It will be an opportunity to look at yourself again while accepting the feeling of strangeness. And in the diversity, it can be an opportunity for each participating member to realize

their own wonderfulness.

Diversity is an important treasure for the next development. Through the long evolutionary process, human beings have been able to connect their lives while maximizing diversity. Various people have shared their wisdom and have adapted to the rapidly changing new environment. In action research, it is extremely important to create an environment where each participating member can enjoy diversity.

Integrality is a state in which overall coherence is exercised over a long-term period. While people and communities may appear to be moving about separately from one another, there is a need for a framework to integrate them as a whole. There may be ups and downs at times, but growth continues as balance is maintained from a long-term perspective.

Plasticity, diversity and integrality apply not only to individuals, but also to organizations, regions and global activities. Understanding the three elements of plasticity, diversity, and integrality in the development of action research is a great strength.

Chapter 4

Evaluation of Action Research

Section 1

Eight elements of evaluation

In order to create an environment that enables co-creative action research, there is a need to have eight values for action research (Anme, 2012). These elements are necessary for exercising action research and can also be used as indicators for evaluation for measuring results.

1. Empathy

Empathy is indispensable for an empowering environment. Empathy means individuals have their own will and also recognize that likewise, others also have their own clear will. Individuals can accept the intentions of others, apply these to themselves, and understand them. That is what empathy is about.

Empathy does not stop at associations between people. Empathy with the purposes and details of their business, projects, or programs and their results and contributions can have a significant influence on the realization of empowerment. Programs that have high levels of empathy and ties between its members will have strong momentum for empowerment.

2. Self-Actualization

Self-actualization is a sense among each and every member that through their individual activities, they are able to realize their values. Regardless of whether they are children or senior citizens, people take action when they feel enjoyment and have a sense of meaning. Activities that offer high rates of self-actualization will arouse people's desires to take part and remain involved in such activities.

3. Inter-Sectoral Characteristics

Inter-sectoral characteristics are measured to indicate the ways in which each member is involved in the affairs of others, as if they were matters that pertained directly to them. Personal involvement indicates a state in which they are convinced in the presence of their roles for achieving objectives.

When a person is unable to clearly see where they stand, it becomes difficult to grasp the issue at hand as their own affair. Particularly in the case of projects or corporate environments where a large number of people are involved, people are often a part of such groups for vague reasons and unable to gain an inter-sectoral sense that they are directly involved.

To promote empowerment, it is necessary to have some sort of role and contribute to the whole, regardless of how small that part may be.

4. Participation

Participation is an indicator for the extent to which each member actually feels that they are impacting their activities. Not limited to physical participation, this is an indicator for how people feel that they are clearly involved in some way.

The difference between inter-sectoral characteristics and participation is that participation includes specific actions for involvement which are visible and recognizable by both individuals and by others. People are able to give meaning to themselves when they are recognized by others. It is possible to establish the presence of their participation or involvement, which become opportunities to gain such recognition.

It is important that measures are considered so that by having people work together to create something, such efforts become positioned as invaluable experiences in their daily lives. Establishing frameworks that will lead to internal motivation—one idea for that is to promote regular participation as events in themselves.

5. Equality

Equality, or fairness, is essential for promoting solidarity between members. They will not be able to perform unless they feel that a project or program is being conducted fairly, as well as the feedback that is given and the treatment of each member. Without a sense of equality, they will end up losing their motivation.

One way for presenting fairness when dealing with situations where equal treatment to all members may not be possible is to explain rational reasons that will convince them and to facilitate an environment that everyone is willing to accept.

6. Diversity of Strategies

The presence of diversity in strategies is a significant strength for individuals, groups, and also for the environment, which ties in to the procurement of a multitude of resources that are aimed at the development of a project or program. In addition to the diversity among members, consideration should also be made for the diversity of resources to be used.

7. Plasticity

Plasticity is an indicator for assessing whether it is possible to deal flexibly with various changes in conditions and presents significant impact on the development of an individual or an organization. Performance assessments are made on the extent to which members, the project or program, or the process for achieving objectives may be carried forward while implementing modifications, regardless of changing conditions or changes among members.

8. Innovation

Innovation for future development and possibilities for sustainability will bring members a sense of security. This is because by envisioning the future, it becomes possible to establish standards for behavior and determine roles in a strategic manner. Performance assessments are made for projects and programs by examining whether there are prospects for innovation for growth and stable sustainability.

Section 2 Validity and reliability

There are various debates about the science of action research. For example, Lincoln & Guba (1985) defines credibility as its four criteria: (1) transferability, (2) credibility, (3) dependability, and (4) confirmability. On the other hand, Herr & Anderson (2005) cite, (1) outcome validity, (2) process validity, (3) democratic validity, and (4) catalytic validity as four criteria for validity.

Whether action research is effective as a scientific method requires clarification of its validity and reliability. Action research often takes the form of qualitative research, and it is not possible to talk about reliability and validity in the same way as quantitative research. This is because qualitative research and quantitative research differ in the nature of the research process. However, for qualitative research, it is possible to set scientific standards and devise ways to improve its validity and reliability.

Validity is an infinitely true approximation of a proposition, that is, it is just an "approximation," not a belief that the proposition is true. The validity in action research is the question of "approximation of facts". In other words, the validity of action research is judged by whether or not it "fits" the subject, often "grabs" the phenomenon, and "works" sufficiently. “Fit” means that the content extracted by action research clearly reflects the actual situation. Also, "grab" means that what is guided by action research captures the essence and is at the core of it in practice. Furthermore, "work" means that the derivation is effective in explaining, interpreting, and predicting the phenomenon (Anme, 2018).

On the other hand, what is reliability in action research? Generally, in quantitative research, the accuracy of a measuring tool when measurement is repeated is called reliability. In some cases, reliability is evaluated as reproducibility, which is the repeatability when the measurement is repeated many times. However, in action research, the inability to repeat has been criticized as a major methodological flaw. Because action research cannot be done "again." Action research reflects the results of the team's best efforts, such as the skills,

creativity, time, resources, and analytical skills of those who work with the parties to solve problems. Therefore, reproducibility is out of the question in terms of being able to repeat the exact same thing.

Therefore, the reliability of action research is verified by utilizing the results in practical situations and whether the results can be applied to similar situations and different problems. Will it work if the results of action research are used in similar situations? That is the standard is whether or not the phenomenon can be interpreted, understood, and predicted.

In action research, instead of validity and reliability, it is required to clarify the accuracy of information grasping and analysis, so the terms such as "evidence" and "credibility" are often used.

Chapter 5

Tips for Action Research for Empowerment

Section 1 Seven tips for empowerment

Tips for the effective promotion of empowerment (Table 1) are as explained below (Anme, 2012).

Table 1 Seven tips for promoting empowerment (Anme, 2012)

1. Have clear objectives
2. Enjoy relationships
3. Create networks of empathy
4. Produce a sense of comfort
5. Offer flexible forms of participation
6. Always aim for development
7. Have a perspective of evaluation

1. Have Clear Objectives

First, it is necessary to involve the relevant subjects. By subjects we do not only mean the people who are directly involved in the matter at hand; they include everyone with whom the subjects come into contact: those who need support, employers, friends and families of consumers, and residents of the community who are associated with the particular project. Clear objectives, which reflect the values of the subjects, are established based on their needs. These values include standards and policies that must be maintained within the process for realizing the targeted conditions. The values of each and every member are brought together and the basic ways of thinking of the group, its principles, guidelines, and guidelines for action are shared.

The presentation to participants of results that match their values will often lead to a sense of unity and a will to participate, while it is difficult to achieve a sense of satisfaction by simply sharing values to suit the occasion for a particular project or exercise. The reason for that is because we are able to affirm the meaning of our existence or our work when we achieve a sense of connection and empathy with our peers or with the people in our society. The effective steps to take are to give importance to individual values while always recognizing the values that the group or organization aims to achieve and affirming such matters verbally.

A need will arise for values that are based on empathy, which will enable members to understand and feel that they can make an impact on knowledge that is worth sharing with others, issues, new ideas, and future activities. Such values are determined by participating members.

Another recommendation is to have someone other than the members of the group, such as a person in a supporting role or an external expert, set such values. It is preferable to obtain multifaceted opinions from experts on the social values of a particular initiative or how it might be possible to draw out more capacities.

2. Enjoy Relationships

This means finding enjoyment in associations between people and communities or the process of working on a theme in itself.

Sharing enjoyment with others is the most important principle of empowerment, as it relies largely on self-actualization based on empathy. The important things that enable people to share enjoyment are an open atmosphere that invites voluntary involvement and prompts people to enjoy associating with others; a sense of reciprocity that gives them a sense that they are gaining something, although there is no need to be able to clearly identify what that something is; and above all, a sense of trust. Confucius said, "One who knows is no match for one who likes. One who likes is no match for one who enjoys." The most effective way to achieve something is to enjoy it.

Empowerment may be described as empowerment through connections. There is a need to boost ties between

people and communities and to create environments that enable people to enjoy those ties.

3. Create Networks of Empathy

Networks of empathy are for enabling participants to have a sense of closeness and stimulation while experiencing a feeling of connection. Closeness means a relaxed sense of security while stimulation refers to a sharp sense of tension. The combination of both aspects is known to invigorate empowerment.

When personal relationships between people are strong and a high level of closeness exists, activities within the community as a whole will be enriched, as the trust that is nurtured through daily personal exchange will be tied in to new activities. Conversely, close associations can be developed through overall activities as well. On the other hand, a sense of stimulation will increase if there are opportunities to belong to multiple groups depending on the situation. Stimulus is obtained through a new position in a new group outside the constraints of daily associations.

To promote the development of networks of empathy, regular activities and stimulating new activities can be combined intentionally, taking steps to boost personal relationships with new people and expanding the scope of stimulating topics.

4. Produce a Sense of Comfort

Neuroscience has revealed that the brain is an organ that experiences comfort from rhythms. Everything that exists in the natural world has been demonstrated to have a rhythm. From the rhythm of plants and animals during growth to the rhythm of the expanding universe, periods of growth or suspension, repetition and change, a rhythm is something that is found in all processes of growth and development. The same may be said for the growth of individuals, communities, and society: the growth of relationships between people, people and communities, or people and society.

So, to promote growth and development, it is crucial to intentionally create rhythm. Whether the subject is an individual or a community or organization, a rhythm promotes growth. For example, even if a person is facing challenges and is biding his or her time, when viewed from a long-term perspective it is often an opportunity for the person to take the next major step for growth. The science of lifelong development indicates that the presence of vulnerability makes it possible for people to develop the strength to overcome difficulties and the empathy to be considerate of others. The area of aquaculture occasionally introduces large fish to intentionally create a tense environment for the smaller fish, which is said to actually invigorate the smaller specimens and extend their longevity or improve their state of reproduction.

A rhythm is a wave motion. It serves as a wave motion in the human body, such as a heartbeat or a brain wave, to ensure that energy is spread throughout the body. It can also invigorate a particular subject, people, or communities.

The following types of initiatives are effective for generating a sense of comfort:

1) Maintaining a balance between stimulation from coming into contact with a large number of people and opportunities to create close relationships.
2) Maintaining a balance between debates for coming up with new ideas and training sessions aimed at disseminating existing knowledge.
3) Creating a rhythm of the comings and goings of various people and conducting an array of activities.
4) Developing an awareness of the pulsation felt toward actions such as personal interaction or development.
5) Intentionally generating a rhythm that matches occasions.

In order to promote empowerment, a rhythm should be created for periods for making efforts for dealing with change, as well as for maintaining order. Change stands for a person's acute sensitivity to changes in his or her surroundings, and order is the effort to organize the methods which have been developed for adapting and expanding them more effectively and efficiently.

Efforts for coping with change should start by reviewing the standards of value that people and communities have, without realizing it, utilized as the basis for decision-making. An assessment should be made on whether they are desirable or require modification and then flexibly adjusted according to need. What is

necessary is the clarification and review of such bases.

In dealing with change, it is necessary to eliminate past concepts and methods. In reality, however, many people and communities are not skilled at discarding such conventional beliefs and tend to adhere to what they are familiar with, particularly if things have been going well in the past. Rather than changing the course of their direction to what is necessary, they try to continue to use the same concepts and methods in a more efficient way.

It is essential to identify the things that should be modified and those for which order should be maintained. Change is the opposite of order, and it means the destruction of preconceptions, or is itself the object of destruction.

Initiatives for coping with change: a review of the preconditions and frameworks behind the concepts, actions, and decision-making of people or communities, an assessment of desirability, and modification if so required. Initiatives for order: the dissemination of shared values. It is an opportunity for individuals and communities to show their skills in just how beautiful a rhythm they can weave these together to give life to empowerment.

5. Offer Flexible Forms of Participation

A fundamental rule for the roles and state of people's participation is that flexible leeway is given so that periodical changes can be recognized. Examples of the forms of participation include the following (Figure 1):

1) Coordinator: A person who takes on a role for adjusting plans as well as for the organization.

2) Core member: A person who is proactively involved in planning and operations.

3) Active member: A person who is involved in activities on a daily basis.

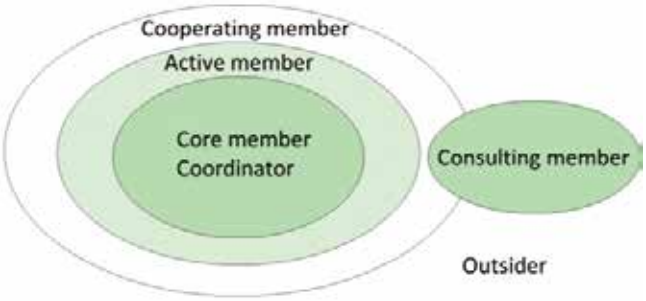
4) Cooperating member: A person who takes part when they are interested.

5) Consulting member: A person who offers expert information and technical skills according to need.

Consideration should be made for planning activities so that members at each level will feel that they can fulfill their roles at any time.

Rather than enforcing participation, an effective way to exercise successful empowerment is to create a mood that attracts people like a magnet and enables people to take part in a casual and natural way. It is also important that the forms of participation are made flexible and interchangeable so that any member can be active as a core or active member based on need.

Figure 1 Types of participation



6. Always Aim for Development

People and communities are both entities that cannot remain unchanged in a single state. They are invigorated by moving toward the future, always aiming for growth. Instead of becoming fixed, various members are accepted in a flexible manner. Dynamic activities get underway while they adapt to their environment.

What empowerment aims to achieve are people and communities that are invigorated. By prompting them to generate their potential power, it becomes possible to bring them change.

Charles Dederich, who founded a self-help community for drug abusers in the United States, introduced the expression, "Today is the first day of the rest of your life."

What is important is to be prepared with a plan for always aiming for development in order to maintain a lively perspective for the future.

7. Have a Perspective of Evaluation

To appreciate the significance of conducting activities, it is necessary to have a perspective for understanding their meaning, to be able to evaluate them. By being aware of the meaning of things that are associated with the community and their activities and understanding their objectives, results from activities,

impact, and costs, it will be possible to achieve a sense of satisfaction and develop outlooks for the future.

In order to promote empowerment, it is necessary to always reveal the value of activities that take place. They are assessed over the course of activities as required for the purpose of conducting objective evaluations. The level of strength, both apparent and potential—the amount of strength that is present and the level of potential strength that potentially exists—are made clear. And furthermore, new methods are proposed and predictions are made on issues that may arise in the future.

By presenting values based on assessment, it will become possible to identify the motivation for people and communities to proactively participate. Effective assessments are those made by both internal and external parties who can see through the essence of the community.

The purpose of an evaluation is to leverage the findings in the next stage. Like Edison, who said that he had never failed and only found ten thousand ways that won't work, an attitude is needed to use assessments as a step for further growth.

Section 2 Action research three tips

To promote action research, it is effective to utilize the following three tips together (Anme, 2018).

1. There is something that each person can do (self-efficacy)

2. Enjoy the difference with others

3. Believe in the power of the group

First of all, it is essential for the participating members to have a sense of self-efficacy that "each person can do something." This is because respect for others is not born where you are not confident in yourself. Only by holding oneself firmly can one recognize others.

Next, "enjoy the difference with others." Diversity is the source of action research development. Evolutionary biology reports that evolution is not rational, but irrational with rational. Diversity, ambiguity, chaos, and incomprehensible things create new values and meanings. It is necessary to cherish the miscellaneous and ambiguous world, which seems to be useless. It is also known as so-called "play" or "a margin left for applying."

And "believe in the power of peers and organizations." The sense of trust required for peers and organizations is not limited to the sense of trust regarding the connection between individuals. Recognize various personalities and trust the power of the group that embraces that diversity.

As one method, it is effective to give each person some role. For example, "☆ net supporters" (☆ is a name that leads to a role, such as a region name or business nickname). To start, first, "visualize" the role so that it can be communicated to other people, and secondly, do not define the role too strictly. It is possible to freely select the efforts and contents to be fulfilled by oneself (it is better to give a rough name with a range of choices for the role), and then finally, make loose connections and make friends in a loose place.

In co-creative action research, each person is confident in oneself and enjoys activities toward the goal together while taking various differences in individuality as a matter of course.

In action research activities, participants believe that there is something they can do, and when it is recognized by others, it is possible to recognize various others, which leads to teamwork. Let's enjoy action research while making good use of the three tips.

References of Theory Part

1. Adams R, Social Work and Empowerment, Palgrave Macmillan, 2008
2. Anme T, Culture, Care and Community Empowerment: International Applications of Theory and Methods, Kawashima Press, 2008
3. Anme T, Empowerment sciences for professionals enhance inclusion and a world of possibilities, Japan Pediatric Publication, 2018
4. Anme T, Creating Empowerment in Community: Theory and Practice from an International Perspective, NOVA, 2019b
5. Bandura A, "Self-efficacy: Toward a unifying theory of behavioral change", Psychological Review, Vol.84, 1977, 191-215
6. Blair T, Minkler M, Participatory action research with older adults: Key principles in practice, The Gerontologist, 49(5), 2009
7. Conger JA, Kanungo RN, The Empowerment Process: Integrating Theory and Practice, Academy of Management Review, Vol.13, 1988, 471-482
8. Coghlan D, Brannick T, Doing action research in your own organization, SAGE, 2014
9. Coleman JS, Foundations of social theory, Belknap Press of Harvard University Press, 1990
10. Fetterman DF, Empowerment Evaluation Principles in Practice, Guilford Press, 2005
11. Freire P, Pedagogy of the Oppressed. New York, Continuum, 1970
12. Hart E, Bond M, Action research for health and social care: A guide to practice. pp. 36-58, Philadelphia, Open University Press, 1995
13. Herr K, Anderson K, The action research dissertation: A guide for students and faculty, Sage, 2005
14. Holter I M, Schwartz-Barcott D, Action research: What is it? How has it been used and how can it be used in nursing?, Journal of Advanced Nursing,18(2), 298-304, 1993
15. Lathlean J, Choosing an appropriate methodology, In J. Buckeldee R, McMahon (eds.), The research experience in nursing. 31-46, London, Chapman and Hall, 1994
16. Lewin K, Action research and minority problems, J. Social Issues, 2, 34-46, 1946
17. Lincoln YS, Guba EG, Naturalistic Inquiry, Newbury Park, CA: Sage Publications, 1985
18. McClelland DC, Human Motivation, Cambridge University Press, 1988
19. Meyer J, Qualitative research in health care: Using qualitative methods in health related action research, BMJ, 320, 178-181, 2000
20. World Health Organization, Social Exclusion: Meaning, measurement and experience and links to health inequalities A review of literature, WHO Social Exclusion Knowledge Network Background Paper, 2008

Part II
Practice

Chapter 6

Creating a Happy Community for Everyone

Section 1

Action research story

1. Overview

In order to actualize sustainability in an aging society with a declining birth rate, urgent attention needs to be given to the issues of frailty and long-term care prevention for older adults. Each local government has actively developed preventive care projects and interventions for older adults, which have yielded several results. The Ministry of Health, Labor and Welfare has promoted the development of a comprehensive regional support and service provision system (community care system) with the goal year of 2025 (Figure 1). This comprehensive community-based care system aims to maintain the dignity of older adults by promoting their independence and developing a structure that allows them to continue their way of living throughout their lifespan in their own localities (Ministry of Health, Labor and Welfare). Additionally, it is necessary for local government bodies and residents to adapt to the characteristics of the region and promote independence. Japan's *Healthiest Longevity Village Study Group* was established in 1991 in Tobishima Village, Aichi Prefecture, with the slogan "Making Japan's Healthiest and Longevity Villages." For nearly 30 years, we have been conducting a study titled "Community Empowerment and Care for Well-Being and Healthy Longevity: Evidence from Cohort Study" (Japan's Healthiest and Longevity Village Study Group, 2011).

Japan's Healthiest and Longevity Village Study Group aims to create a community where all residents can share their *joy of living*. Based on the findings of the 30-year follow-up study, residents, government officials, professionals, and researchers will work together to ensure happiness, health, and longevity for residents, and to continue the partnership project among the parties concerned. I have been promoting this idea of healthy and longevous villages; we are conducting activities emphasizing the residents' independence through community empowerment (Anme, 2004), by drawing out the power of the residents themselves. Consequently, we aim to provide scientifically evidenced results, such as extended healthy life expectancy, reduced medical and nursing care costs, improved satisfaction among residents, increased care prevention projects for older adults, and enhanced variety of medical services. For these purposes, projects aimed at maintaining multigenerational health have been implemented, for example, health promotion classes using training gyms and courses to improve infants' and children's physical fitness.

Since its inception, this project has been actively engaged in supporting regional movements. This support was provided through a series of efforts, which began by assessing the current situation through needs surveys and health awareness promotion projects and has now developed into the widespread Tobishima's *original gymnastics* program, where residents take the initiative to practice and promote healthy behaviors. Original gymnastics was built as a promoter of improved dietary habits; it involved committee members promoting sports, with a resident leader who represented the core committee and acted as the main axis while exercising with the residents. We are conducting promotional activities, which incorporate the thoughts of the residents and professionals about the community.

In 2019, we designed a regional rehabilitation project (Tobi Rehabilitation System, Figure 2) by integrating the existing services to form a seamless project. The new project connects all five elements of the comprehensive community care system (Figure 3) to facilitate improved care prevention. This paper talks about the new system and its efforts for community care prevention.

Figure 1 Community-based integrated care systems

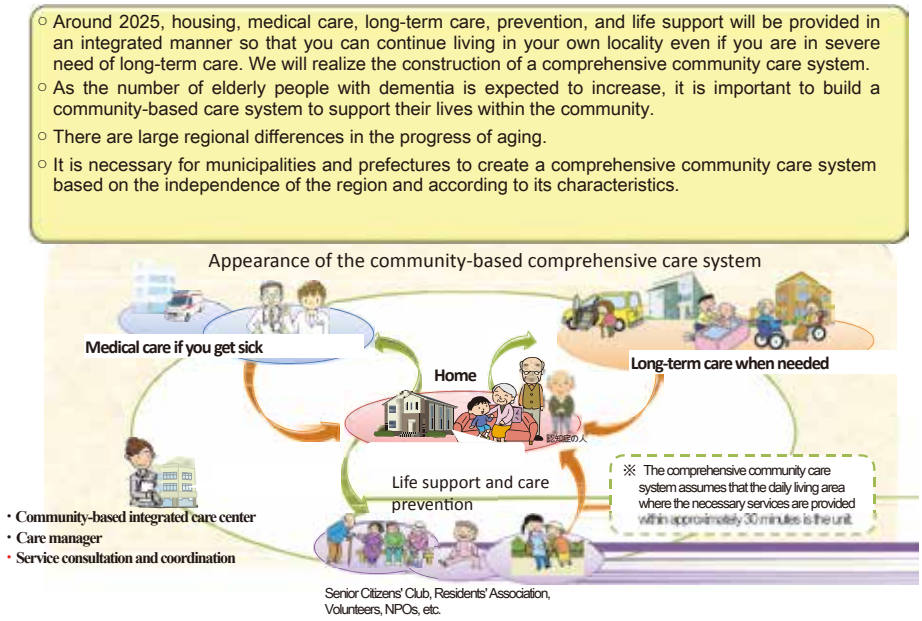


Figure 2 Sustainable community rehabilitation project "TOBIRIHA system image"

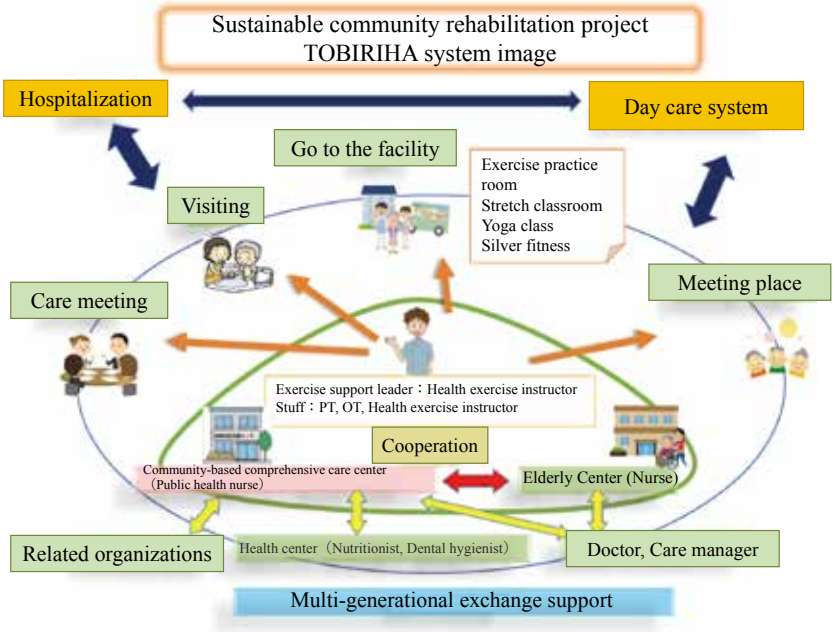
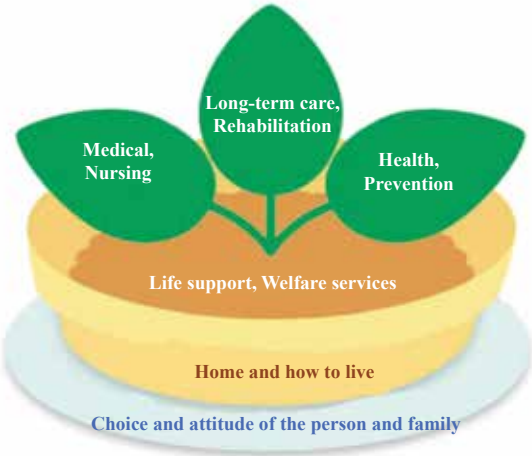


Figure 3 Five components of the comprehensive community care system



2. Action research planning (Figure 4)

The empowerment process design (Anme, 2014) was used to develop an action plan.

(1) Objectives

We set the following five goals with the aim of continuing a vibrant project within the locality

1) To ensure that residents feel free to participate happily
2) To take advantage of regional characteristics
3) To use existing projects effectively
4) To promote evidence-based development and sustainability
5) To create a base for project continuity

(2) The Present

The strengths of this municipality include:

1) It is the result of the long-term efforts made by residents, experts, and researchers who worked together
2) Mechanisms built to reflect the voices of residents, adapt services, and quickly present the results

The Challenges faced by this municipality include:

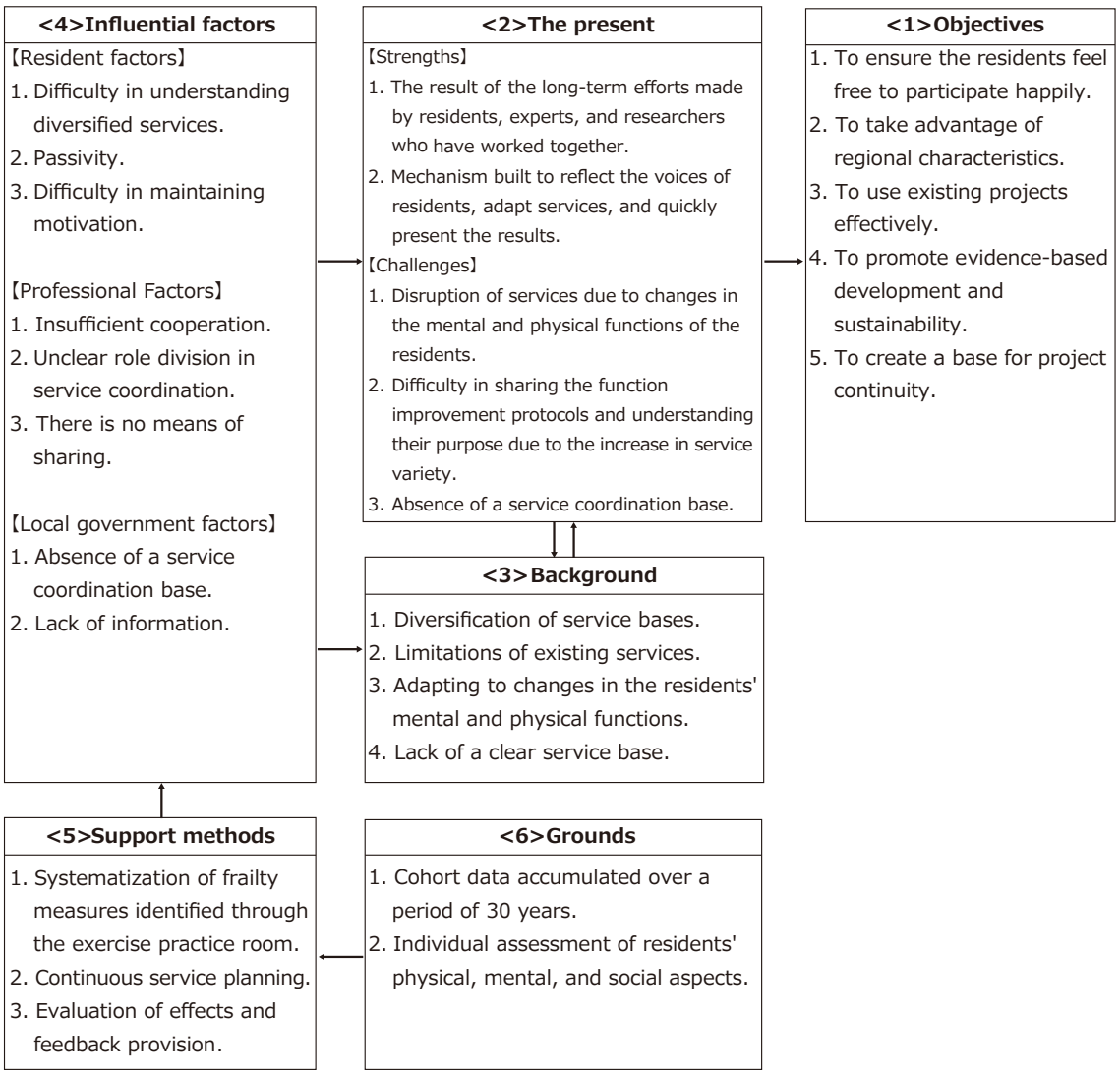
1) Disruption of services due to changes in the mental and physical functions of the residents
2) Difficulty in sharing the function improvement protocols and understanding their purpose due to the increase in service variety
3) Absence of a service coordination base

(3) Background

The background of the rehabilitation project development is as follows:

1) Diversification of service bases
2) Limitations of existing services
3) Adapting to changes in the residents' mental and physical functions

Figure 4 Design for supporting empowerment



4) Lack of a clear service base

(4) Influential factors

Influential factors existed in three different aspects:

【Resident factors】

1) Difficulty in understanding diversified services
2) Passivity
3) Difficulty in maintaining motivation

【Professional Factors】

1) Insufficient cooperation
2) Unclear role division in service coordination
3) Lack of means for sharing

【Local government factors】

1) Absence of a service coordination base
2) Lack of information

(5) Support methods

The following methods were used:

1) Systematization of frailty measures identified through the exercise practice room
2) Continuous service planning
3) Evaluation of effects and feedback provision

(6) Grounds

The program was based on the following evidence:

1) Cohort data accumulated over a period of 30 years
2) Individual assessment of residents' physical, mental, and social aspects

Section 2 Action research process

1. Background of the project

For about 30 years, the local government has been designing exercise-based activities inculcating various perspectives and promoting their results. This project was recently proposed as a countermeasure to the following issues:

Issue 1: Interruption in support services

E.g.: A resident participating in a care prevention project (exercise practice room) may be restricted from participating due to a fracture caused by a fall. Even if it is possible for the resident to return home post an intensive functional treatment, at times there are cases where functionality is disrupted and the amount of activity decreases. Moreover, it limits residents' day care or function maintenance services in the exercise practice room.

Issue 2: Difficulty in sharing rehabilitation and exercise protocols

E.g.: Protocols for each service provided, such as care prevention projects, day care, and rehabilitation at hospitals cannot be shared. This leads to a very high or insufficient load.

Issue 3: Decrease in the connection between long-term care insurance service users and the community

E.g.: Individuals are focused on the consumption of services, thereby weakening their connection with

Figure 5 Based in the practice room

the community and their relationships with people due to lack of participation in social activities.

In order to deal with these issues, a sustainable community rehabilitation project was proposed. This project has led to the development of the "Exercise Practice Room" (see Figure 5), which is a base for supporting the health and exercise routine of older adults; it makes effective use of existing projects, based on regional characteristics, to enable easy and enjoyable participation of residents at any time. It is a project unique to the local government that will be continued, based on its results and utility (Figure 2).

2. Sustainable community rehabilitation project

Following are the primary characteristics of this project:

(1) Multidisciplinary collaboration

Professionals, such as public health nurses, health and exercise instructors, nurses, rehabilitation specialists, and social workers work together for the development and maintenance of this project.

(2) Initiatives for multiple generations

At the initial stage, multi-generational exchanges are conducted through the original gymnastics program, but other services are being developed mainly for older adults. In the future, I believe it will be necessary to create opportunities and events that cater to multiple generations.

(3) Continuous efforts

Beyond the classroom, residents receive unconditional support at all stages, regardless of prevailing health problems in the community, need for prevention, and need for treatment or rehabilitation.

(4) Co-creation of parties

Residents identify problems, set goals, and actively and enjoyably look for solutions themselves; these activities enable residents to act independently in the community.

3. Structure of the sustainable community rehabilitation project

(1) Assessment and goal-setting

The data were obtained through interviews with nurses, while public health nurses, registered dietitians, and dental hygienists conducted assessments and provided health guidance as needed. Data were collected using the following information:

1) Questionnaires
- Basic health checklist
- Index of Social Interaction
- The Tokyo Metropolitan Institute of Gerontology Index of Competence

2) Mini-Mental State Examination
3) Physical condition, consultation status, medication status
4) Oral frailty screening test
5) Dietary survey
6) Subjective view of health
7) Life goal setting

(2) Exercise assessment and exercise program creation

The exercise support staff, including a health instructor, a physical therapist, and an occupational therapist, carry out the assessments. Wherever necessary, participants were required to obtain permission from their doctor for exercise protocols and contraindicatory instructions. Exercises were carried out in the exercise practice room, depending on the condition, assessment, and guidance at home. The following review goals were set in accordance with the regular assessment results and exercise protocols:

1) Checking motor function
2) Body composition measurement
3) Setting exercise goals
4) Proposal of the exercise program

4. Implementation status

The initial assessment started in October 2019, followed by goal setting and program planning. Residents who did not attend the exercise practice room, which is a base for daily care prevention, are being encouraged to participate. In addition, long-term care insurance service

users face issues such as coordination between other occupations, such as the care manager in charge, and the service establishments that are being used.

Section 3 Action research outcomes

This project was evaluated on the basis of the eight elements of empowerment (Anme, 2014), and the results of the initial assessment are presented here. Based on these results, we will continue to actualize healthy living in the community and to disseminate the results through this new sustainable community rehabilitation project.

1. Empathy

The sustainable community rehabilitation project is characterized by a variety of programs in the community that are efficiently tailored to the changing physical functions of the participants. In order to adapt to these changes, empathy for issues and initiatives is imminent; these results were achieved through empathy between residents as well as between service users and providers.

2. Self-actualization

Professionals target the issues concerning the residents beyond community boundaries and generate support by incorporating the necessary services. This led to the realization that the issues arising in response to the situational changes needed professional efforts to bring about positive changes, thus, making the professionals aware of their required expertise in various areas. It also called for innovation and further development of expertise. Several activities exist to maintain physical function and health to ensure consistency in tackling challenges. Therefore, each professional has the opportunity to contribute to their own activities, achieving a sense of realization when participants want to continue and practice the activities by themselves.

3. Intersectoral

Each participant can be involved in the project independently. In this project, it is easy to understand your role and purpose. There is a sense of security that it is okay to find your own role and implement it. Furthermore, the support system allows you to start over, even if you make a mistake, as is clearly stated.

4. Participation

The concerned parties are working together toward the purpose of *keeping older adults healthy*. Participation makes each member aware of their contribution, and in this project, we aim to create an organization where everyone involved can feel like equal partners. The parties share the participant's issues with their families and professionals and develop activities to resolve them. These professionals demonstrate their expertise by collaborating with other professionals, depending on the situational demands. This ensures that no individual entity holds all the power, and participation is enhanced through the mechanism of cooperation.

5. Equity

There is no defined leader, and equality is maintained through communication among all positions. The system allows service users and providers to continue working together in a horizontal connection rather than a hierarchical system.

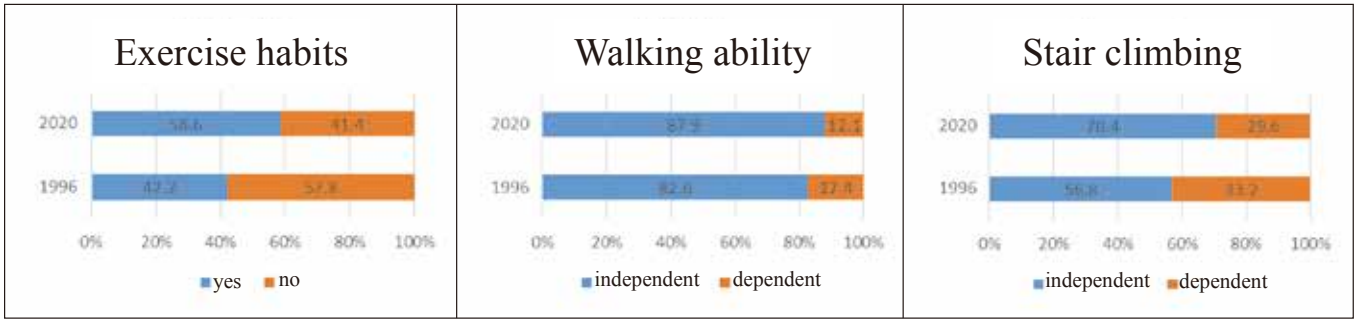
6. Multi-strategy

The main members are the residents, local government bodies, and professionals; the professionals consist of health instructors, nurses, public health nurses, registered dietitians, physiotherapists, occupational therapists, and many more. We have set up a place for sharing information and discussions about developing activities that incorporate each of our strengths, and we have a system in place to share issues and results.

7. Plasticity

This project was established to address the problem of functional change among older adults, and its strength is to be able to adapt. Thermoplastic metrics show how extensively a participant's processes, activities, and goals can be changed to adapt to changes within themselves and the environment. Services can be restructured as needed to provide appropriate support for your problem.

Figure 6 Results of measures against frailty syndrome for older adults



8. Innovation

Health promotion activities, which started in 1991, have spread across generations and already evolved into various activities. Launched in 2019, this project has not been proposed as a new endeavor but is rather the result of 30 years of research and has ample potential for further development among family members and acquaintances, starting from health maintenance for older adults.

9. Outcome

This project is the result of the continuous exercise support against frailty for nearly 30 years (Fig. 6). Residents' exercise routines have been established, and the rate of independence for performing activities of daily living is high.

Section 4 Empowerment tips for action research

1. Clarify the purpose

The purpose of this project was to enable participants to perform activities that make them feel good anytime, anywhere, with anyone, and continuously.

The inspiration for this project is the strong desire of the residents to stay healthy and continue living in their community. Professionals, local governments, and research institutes collaborate toward the clearly defined purpose of "I want to stay healthy," and discuss the possibilities of each professional to take further action. The parties involved are older adults, their family members, relatives, friends, neighbors, the professionals that support them, the local governments, and the researchers. Older adults with impaired abilities work to improve their functioning, healthy older adults work toward long-term care prevention, family members and acquaintances support them and sometimes seek suggestions to stay healthy themselves when they are affected. Public health nurses coordinate the entire process by facilitating social interaction and improving the residents' physical and mental health, while the exercise support professionals evaluate the exercise protocols. The nurses manage vital signs and observe the overall physical condition. A registered dietitian manages the nutrition necessary for maintaining health. The local government makes arrangements to actively and efficiently continue the process. Each party's strength can be directed toward the pre-defined goal of "I want to stay healthy."

2. Enjoy the relationship

In this project, previously independent projects have collaborated to create newer networks. Currently, many services exist and the exercise practice room acts as a base for these activities and strengthens the relationships between these services. Initially, the parties involved in the services played a central role in establishing connection. However, in the sustainable community rehabilitation project, the services themselves are interconnected by utilizing administrative and social resources, such as long-term care insurance establishments and neighboring hospitals in the community. This allows us to build strong networks between all services, and not just services that stakeholders are connected to. For example, a physiotherapist who was in charge of rehabilitation at a facility came to see how he lived at home. Older adults and professionals can create and share functional improvement programs necessary for their daily functioning. Physical and occupational therapists who were in charge of hospital rehabilitation can continue the rehabilitation program at

the hospital while maintaining or improving participant functionality through continuous exercise support in the exercise practice room. The presence of a professional in the exercise room inculcates a preventive perspective alongside a functional improvement program. The new connections between people and expert services enable the discoveries of novel and enjoyable aspects for the parties and experts.

3. Networking of empathy

The strength of this project is to utilize existing services and resolve the issues of service cooperation through newer comprehensive services. A deliberate combination of regular activities and exciting new activities is effective for building empathetic connections. We will improve the project value through participation in modified forms of conventional services. The goal is to be able to participate toward the desire to stay healthy from any place, such as the intensive function improvement training facility, the exercise practice room (exercise base), and the home (living space). This leads to empathy achievement, creation of connections, and a strong empathy network.

4. Producing comfort

This project is being developed to enable residents to work on establishing a rhythm of change and order with which they feel comfortable and use this rhythm to identify and energize the parties, residents, and the organization. Change is the process of sensitive detection and adaptation to the environment. In this project, we are promoting health by sensitively detecting changes in the functions and lifestyles of the parties concerned and adapting appropriate services for these changes. The change approach produces doubts about the use of existing services. It is necessary for the parties and professionals to question its desirability and potential revisions, determine the need for change, and flexibly adapt the activities. Conversely, ordering refers to the process of organizing the developed methods of adaptation and expanding them more effectively and efficiently. The service plan for each party will be created, tailored, and generalized appropriately. The rhythm of change and order echoes beautifully, making participants feel comfortable.

5. Flexible participation opportunities

This project is open to anyone at any time. Its strength is that it is flexible and can adapt to the situation while focusing on the purpose of staying healthy. The base of the project is the exercise practice room, and the coordinator (the person who is in charge of planning and organizing) is a public health nurse; however, this designation changes according to the situation of the parties concerned. For example, the health instructor plays a central role when exercise is the main activity, while the registered dietitian plays a central role in the face of a nutritional problem. On request, the family members can act as the coordinator, as well. Similarly, core members (members actively involved in planning and management), activity members (members involved in activity planning and facilitation on a daily basis), supporting members (members participating as per their interests), and reference members (people who provide specialized information and technology as needed) also change, providing a flexible opportunity of participation. It is important to create an environment where members feel that they can fulfill their respective roles as per their convenience.

6. Constantly striving for development

In this project, we aim toward future growth and development of adaptive activities to keep residents healthy.

Ideally, the activities that are taught in the exercise room should be practiced at home, taught to the family and neighbors, and modified to accommodate the multiple generations of the community. We take small steps and move forward with a clear purpose. It is important to strive to create a system where members can grow and develop themselves and sympathize by sharing and solving problems with others; this will inspire their confidence and self-esteem to solve problems and enhance change. Both parties and professionals share the same goal: a bright future, accompanied by the joy of living and influencing change in themselves.

7. Evaluation

To assess the value of this project, an evaluation is essential. Visualization of the activity value leads to member satisfaction and improves prospects for participation. This project will be evaluated on a regular basis, and the parties and professionals will visualize the results and motivate participants to continue. Furthermore, we plan to disseminate the results and promote the original activities designed by the local governments, worldwide. For these purposes, it is essential to conduct an evaluation from an objective as well as a subjective viewpoint.

This project is unique to local governments, with the aim of 1) easy and happy participation at any time, 2) effective use of regional characteristics, 3) effective utilization and integration of existing projects, and 4) evidence-based development and continuity. Older adults have their personal goals and actively engage in achieving these; it inculcates enjoyment within participants and networking with others (Anme, 2015). The resulting social connections lead to group dynamics. Additionally, family, friends, and the entire community are empowered.

Therefore, the keys aspects of our activities are 1) seamless support, 2) promotion of multi-generational exchange, 3) understanding and fulfilling residents' needs, and 4) network building. We will continue to create a community with the slogan "Glitter, peace of mind, everyone shines."

References

1. Anme T. Empowerment science that snuggles up to the brilliance of life, Kitaooji Shobo Publishing, 2014.
2. Anme T. Community Empowerment: New Horizon for self-actualization through empathy, Ishiyaku Publishers, 2005.
3. Ministry of Health, Labor and Welfare, March 2013, Community-based integrated care systems, https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/hukushi_kaigo/kaigo_koureisha/chiiki-houkatsu/ (Accessed November 5, 2020)
4. Japan's Healthiest Longevity Village Study Group, Creating a vibrant city for everyone-20 years of Tobishima and its achievements, 2011.
5. Anme T. Creating Empowerment in Community: Theory and Practice from an International Perspective, NOVA, 2019.

Chapter 7

Children-Centered Community Empowerment

Section 1

Action research story

Mongolia is the least densely populated country in central Asia, with livestock outnumbering the population. The animal husbandry sector makes 10.9% of the GDP and 8.2% of export earnings, and nomadic herders are directly providing 25.3% of the working age population in 2018. Currently there are 171,605 herding families or 285,482 people, which accounts for approximately 19.5% of all population (NSO). The livestock is the main source of many herder families and most of the families live in gers, the traditional felt dwellings. The herder families move several times a year to find better pasture for their livestock. Due to their mobile nature of livelihood, their children aged 6 – 18 go to the *soum* (a territorial administrative unit subordinate an aimag) or *aimag* (the highest sub-national administrative unit in the country and there are 21 aimags within the country) centers to attend schools, which is far away from their homes. Sending their children to school is the hard decisions for many herder families. Their nomadic children are often separated from their parents in order to access formal education. Once the children attend schools, they have to live at the soum or aimag centers during the academic year, usually from the end of the August to the beginning of June. However, there are several long- and short-term school breaks, some of the children cannot go back to their homes due to the severe winter and dangerous travel conditions. Even during the weekends, they are not able to visit their families.

The children living in centers have the following options: 1) most of them live in school dormitories, 2) they stay with their relative's families such as their grandparents, uncle or aunt's families. Some of the families are being split during the school year and in this case the children usually live with their mothers, 3) the children stay with their older siblings who are also under 18 years old. Living in school dormitory is the only option for some children and today in Mongolia, there are 35,757 children living in 532 state owned school dormitories. There are about 658 dormitory teachers nationwide, and 81, 7% of total teachers are female (NSO). The school dormitories are not separated by gender, but separated by the floors.

Being separated from family causes significant socio-emotional distress for children, especially who are at their young age (the World Bank, 2017). On the other hand, most of the nomadic children enroll in school without proper preschool preparation which may bring further learning difficulties in school. Moreover, the school physical environment is challenging. There are quite many dormitories, which luck of drinking water, adequate sanitation facilities, heating system and safety environment (Asako, 2019). The point is about the children's free time and development activities at dormitories. The World Bank also noted about poor recreational and development activities at the dormitories (The World Bank, 2017).

These kinds of above-mentioned issues and challenges could threaten the future of all the children living at the dormitories. Moreover, the dormitory based educational inequality may also influence negatively to achieve the Sustainable Development Goals. For mitigating the challenges and issues facing at the dormitories, it needs to build more inclusive societies, which empowered the dormitory children, parents, dormitory staffs and communities.

The research team used the participatory action research for empowering the dormitory children, thus the following design for supporting empowerment were developed by the parties (Figure 1):

(1) The research team did not only want the improvement of practice and situation, but also the satisfaction of the

participants during the period of the action research, from Oct 2017 – Dec 2019. Therefore, the objectives of this participatory action research were threefold:

- To improve the situation for dormitory children regarding protection, participation and leisure time within targeted areas
- Improve the physical environment of the dormitories
- Improve satisfaction level of the dormitory children

(2) Before starting the action research, the SWOT analysis were used to evaluate the strengths and weaknesses, as well as opportunities and threats. The interesting point was that the strengths and weaknesses arose from within the related parties. Understanding the obstacles, weaknesses and strengths of the desired action research helped the team members to defend against them and plan successful strategies.

The most of the local community members were always supportive. They were more helpful for understanding the locally specific culture issues and factors, such as nomadic life style, dormitory culture and livelihood of the children, family networking support system, and filial responsibilities, which may greatly complicate or simplify the empowerment process.

(3) Khovd aimag was selected as the research site, where various ethnic groups live. According to the data from the National Statistic office, Khovd aimag is rated as one of the aimags with the highest poverty rate, with poverty head count ratio is higher (40.9%) than the national average (28.4%). In this aimag a total of 1,817 students (918 of them are girls) live at the 22 dormitories. According to the Asian Development Bank survey, many of the dormitories are in unfavorable dormitory environment for children, especially for the early age students (Asako, 2019).

Another point is that there were not many studies which directly measured the situation of the dormitories, dormitory environment, staff capacity buildings, communication between dormitory teachers and students, parents' involvement and participation.

(4) School dormitories are one of the influential institutions for the children's development, especially who are spending about 9 months (school year starts on 1st of Sep and ends in mid-May). The dormitory community and environment are important factors for the child development and by improving the dormitory situation; it will directly influence children's physical, intellectual, emotional, social and moral developments.

(5) This participatory action research could include all the parties, the children, their parents, dormitory staffs and community members. They could walk through the Steps for the Development of Empowerment (Anme &McCall, 2008), participate from creation stage to the expanding the activities for further progress. The action research was really effective, because all the team members, including the above-mentioned parties, shared their issues together and worked on their vision design, execution, evaluation and improvement. The main support method was included all the different parties to involve the research activities from the beginning.

(6) The action research always brings theory and practice together, thus the Theory of Empowerment (Anme, 2008) was used as a ground theory for improving the dormitory situation and livelihood of the children and co-creating the best fitting interventions.

Section 2 Action research process

The research team members, including the local communities, all relied on the Empowerment Support Design (Figure 1). The design helped the participating members to avoid pitfalls, implement the action research according to the plans, and collaborate effectively with all the parties. The tips for the effective promotion of empowerment (Anme, 2018) were taken into consideration, while conducting this action research through the following research steps.

Step 1. Communicate with parties and addressing the main problems

The first step in conducting action research was to identify and define the focus of the action research. The research team members invited 22 dormitory teachers from each soums with twofold purposes, first collecting data (qualitative data) and analyzing it together, second, they were going to be prepared as Training of Trainers (ToTs) and main counterparts of the action research.

The action research principles (Anme, 2018) were considered during this activity. All of the participating members discussed what their values and needs, are and what they can do for the implementation of the action research.

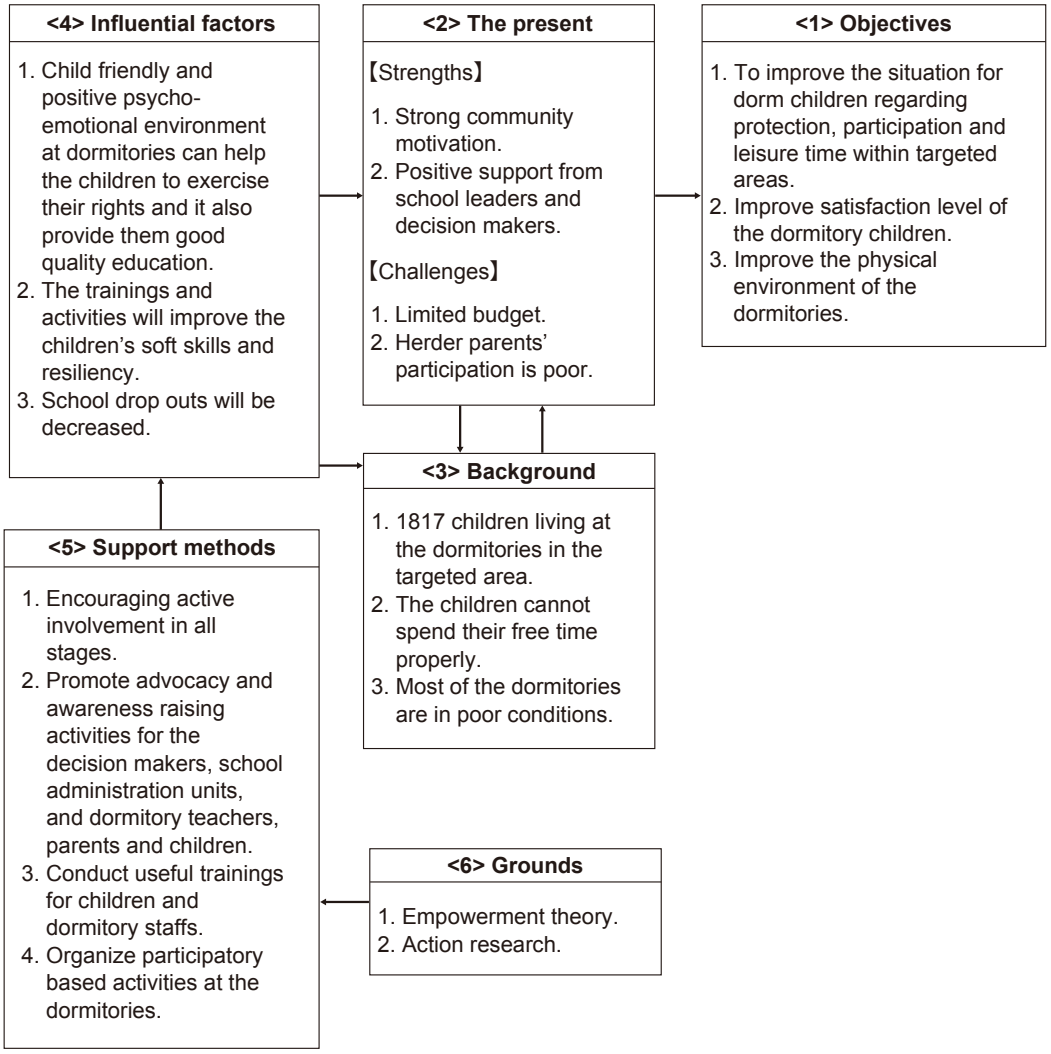
During this activity, it was observed that the participants were enjoyed working together, and they were very open and willing to work together. In this step, the decision makers, school administration unit members, such as school principals and training managers, community members, and, parents were also invited for the discussion.

All the participants were agreed that for improving the dormitory environment, it needed to train the dormitory staffs and change the attitudes of the community members, including parents, school staffs, social workers, school nurses, and, governor officials. ToTs were the main force of delivering the idea of the action research and key training strategies effectively. They were qualified for providing trainings, capacity building assistance, and, conducting needs assessment for the action research.

Step 2. Promoting empowerment and sharing the overall goals

At this step, the dormitory teachers, who were participated in three days intensive training and prepared as ToTs, went back to their towns to share overall goals and design their participatory, and locally based activities. Involving all the relevant subjects were their first duties to determine their values, such as challenges, problems, new ideas, and further plans. It also helped them to create their own local working groups. Some of the dormitory children, and child-based clubs were involved at the working groups. All other dormitory children were also heard and their ideas were taken seriously.

Figure 1 Design for supporting empowerment

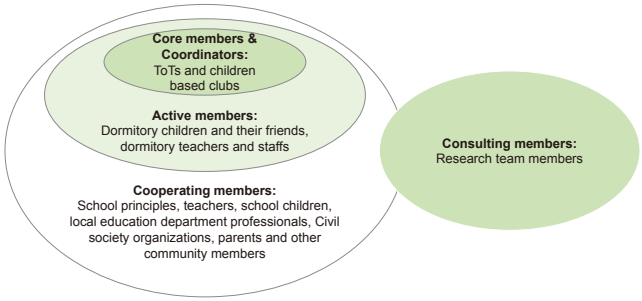


During this step, the action research team always supported the ToTs and as a result, all the 22 dormitories could develop their own objectives and clear working plans.

Step 3. Supporting Methods and offering flexible forms of participation

This dormitory based action research was designed and led by local community members and their flexible forms of participation. Based on the needs and types of participation, the research supporting methods and work plans were determined. Most of the dormitory empowerment teams determined the types of the participation and research members as following (Figure 2):

Figure 2 Types of participation (Anme, 2005)



However, the local research coordinator or ToTs played important roles their forms of participation were always flexible and interchangeable according to the give supporting methods. For example, sometimes the active members, such as dormitory children were so initiative and they do some activities at their dormitories themselves. At that time the ToTs' types of participation were outside members or cooperating members. Moreover, when the whole team were promoting advocacy and awareness raising activities, the ToTs put themselves a step behind and became active or cooperating members, not coordinators or core members. These kinds of participation types help many of us moved toward together.

Step 4. Implementation and Evaluation

The local team members had started implementing the action research in October 2017, just after the new academic year started in September. The research team members or consulting members always had strong communication with every local core and coordinating members. They visited all twenty two dormitories during the action research period and could continually involving in assessing instructions, seeking ways to of improving situations and doing evaluation together. For creating empowering environment and evaluating the action research outcomes, the team members used the eight elements of evaluation, which also necessary for exercising action research (Anme, 2018). These elements helped the team to learn through evaluation and having new objectives for the next stages. For example, after 18 months of starting the action research, the team members, including the core and consulting members, met new requirements and objective. This objective was the developing national standards for dormitories, which brought all the interested parties together. As a result, the national standard 'Secondary school dormitory environment and service. General requirements MNS 6781:2019 was verified by authorized organizations in October 2019.

Section 3 Action research outcomes

In order to evaluate the research outcomes and ensure research validity, the consulting team encouraged the use of multiple methods, or triangulation of methods for data collection and evaluation analysis. The outcome survey was conducted 500 dormitory children randomly selected among approximately 1800 students who are living at the dormitories more than two years.

For the overall satisfaction with the action researches activities, 91.3 % of the participants are very much and mostly satisfied, 8.7 % are somehow satisfied with the activities and trainings. 87.4 % of all the dormitory children replied those positive changes like communication within the family had improved after participating in trainings supported by the action research team members. The majority of the children (91.4%) liked to live in dormitories and for about the dormitory environment, more than 90 % of the children agreed that the dormitories have comfortable environment,

'We like to play together. Also we learn a lot from each other'

A 12 years old dormitory girl

Picture 1 Children are wearing the traditional clothes and palying ancle bone games togeher

'I become more self-confident. I believe myself that I have a power to change myself and my friends. Now I can show them my good influence'

A 17 years old boy

Picture 2 Dormitory boys are presenting about child right during the workshop

'We have hopes and dreams. At the dromitory we always help each other and we do not feel excluded. Our dormitory teachers are very friendly with us.'

A 14 years old dormitory girl

Picture 3 A dormitory teacher is talking with the children at their room.

'With having shared goals, hopes, faith and solidarity, we can overcome our challenges and can move forward, however a little by little we can achieve our goals successfully'

A local school principal

Picture 4 Local decision makers and teachers are planning their activities for promoting dormitory standards

where they can do their homework and spend their free time properly. 90.5 % of the respondents replied that the condition of dormitories kitchen and toilets had been improved during last year.

The most important thing was that the team solidarity, children resiliency and staff motivation were noticed. In addition, the three types of empowerment processes were observed during the field visits and interviews with local community members. It was happy to see that the local communities are cooperating, encouraging and supporting each other at every level of empowerment, self–empowerment, peer empowerment and community empowerment.

Section 4 Empowerment tips in action research

Based on the result from all components of the action research evaluation, the following main tips were made. The proposed tips were categorized according to the three types of enpowerment, self, peer and community empowerment.

1. Self-Empowerment:

The principles for empowerment are based on the individual (Anme 2008), thus the team focused more the indivdials, especially at the begining of the action research. Individuals are seen as dormitory children and teachers, social workers, local decision makers, school principal and managers, and parents. As counsulting members, the most important part of our action research was to recognize the potential strengths within the local community and to help them see it within themselves. By cultivating their hopes and dreams, it become more easy to move forward to the next step.

2. Peer Empowerment:

The team members had noticed that during the action research the men and boys participation level was low compared to the women and girls. Therfore, we tried to promote the male's participation and involvment in team activities. By creating a cooperative envirionment and providing opportunities of spending more time together help many community members learning from each other. Understanding each other and accepting their diversity was important in this stage. The empowerment process is not fully occures, whithout providing equal opportunities for the male and female members.

3. Community Empowerment:

Our unique approch was that we involved the local governments for empowering local communities. The project team conducted trainings, workshops and facilitate meetings for both decision makers and local community members. As a result, the government units, such as the local education and social welfare departments became ready to work together with local communities. By creating mutual trust the both parties could develop successful collaborations and partnerships. The government units could asist in the allocation of funds of the dormitory development and verifying the important procedures and standard.

This dormitory project is still going on, however the action research was completed. The local communities, especailly the ToTs, social workers, teachers, dormitory children and their parents really wanted to continue improving the dormitory situations. The action reasearch activities could encourage their hopes and dreams. All the research team members are very happy for conducting this kind of attractive action reaserach among the local communities.

References

1. Anme T, McCall M. Culture, Care, and Community Empowerment: International Applications of Theory and Methods, Kawashima press, 2008
2. Anme T. Community Empowerment: New Horizon for self-actualization through empathy, Ishiyaku Publishers, 2005.
3. Anme, T. Empowerment Sciences for Professionals Enhance Inclusion and A World of Possibilities. Nihon Shoni Iji Shuppansha Co.,Ltd., 2018
4. Anme T. Creating Empowerment in Community: Theory and Practice from an International Perspective, NOVA, 2019.
5. Asako Maruyama and etc., Impact Evaluation baseline survey of School Environment in Mongolia, ADB, 2019
6. National Statistical Information Service Mongolia, https://www.1212.mn/
7. Mongolia: A Good Start in Life Begins with Quality Primary Education, The World Bank, 2017

Chapter 8

Human Resource Development

Section 1 Action research story

Though research may have an image of being difficult, action research for community health promotion is a method that is used regularly by professionals, such as public health nurses, to improve the quality of support they provide. Action research refers to identifying the cause of the problem that hampers goal-achievement, resolving the issue using a practical solution, and continuing to do so in collaboration with others. There is a limit to what an individual can do for the health of the community; thus, health promotion based on community empowerment is needed (Anme, 2004; Lawrence et al., 2017). Individuals and groups recognize their roles and come together to draw out the power of the entire community. Using the method of action research is very effective in this process enabling community-empowerment. It is important to create a system where residents can continue to improve their health throughout their lifespan to build a sustainable society within their localities. The key to developing such a system is the creation and unification of networks and human resources with a common vision. Sustainable Development Goals (SDGs) will lead to the actualization of Goal 3 (Health) in the social domain through partnership. In this chapter, we will describe the efforts of Ushiku City, Ibaraki Prefecture, Japan (hereinafter referred to as Ushiku) as an example.

The health goal of Ushiku is to ensure that all residents lead a healthy life. An analysis of their health indices showed that the major health issues for prevention were diabetes and hypertension. In addition, there were concerns of an aging population and an increase in medical expenses and encouraging the young generation to follow a healthy lifestyle is essential to preventing any lifestyle-related diseases in the future. Exercise is a practical solution to these issues and the goal is to *exercise twice a week*. Furthermore, the city of Ushiku holds a "Health Walk Festival" every year as an opportunity to incorporate walking as an exercise in residents' lives. The "Health Walk Festival" is held in collaboration with Ushiku City and Ushiku City Society of Commerce and Industry; it focuses on resident volunteers and aims to convey the joy of walking as well as the charm of Ushiku's nature, history, and culture. Though the festival is exercise-based, it promotes health by creating awareness about dietary requirements among residents and connecting with the community. Since 2018, the participation has been expanded to encourage the involvement of children and new content has been developed to ensure a safe and enjoyable experience for beginners.

Figure 1 shows the design for supporting empowerment for the Human Resource Development of health promotion, which includes the following:

(1) The overall goal is to promote *human resource development and create networks*. The specific goals add to the existing content to ensure safe and enjoyable participation of children, parents, and beginners.

(2) There were several obstacles to the previously mentioned goal: decrease in participant numbers, large number of participants living outside Ushiku, and so on. The potential solution was to collaborate with more diverse human resources and related organizations than ever before.

(3) These issues exist against the background of the *declining birth rate, aging population, increasing medical costs, and the vertical sectioning system*. The health problems caused by these issues in each generation need to be solved using limited resources. This calls for a comprehensive system that is based on self-care, mutual aid, public support, and governmental aid (see Figure 2). In particular, it is important to create a self-care and mutual aid system that suits regional characteristics.

(4) These specific issues are influenced by factors such as

long distance courses; the course content for children, parents, and beginners; and public relations. They can be tackled by incorporating collaborative awareness, reviewing the cooperation system, and using the cooperative method.

(5) As a support method, emphasis was laid upon strengthening cooperation (connection) on the grounds of the "Look," "Connect," "Move" motto. This was supported by creating relationships where every member can see each other's roles and faces and where each person can request and coordinate with persons-in-charge by holding meetings and plenary sessions. With regards to the implementation system, the content was restructured to focus on children, parents, and beginners.

Figure 1 Design for supporting empowerment

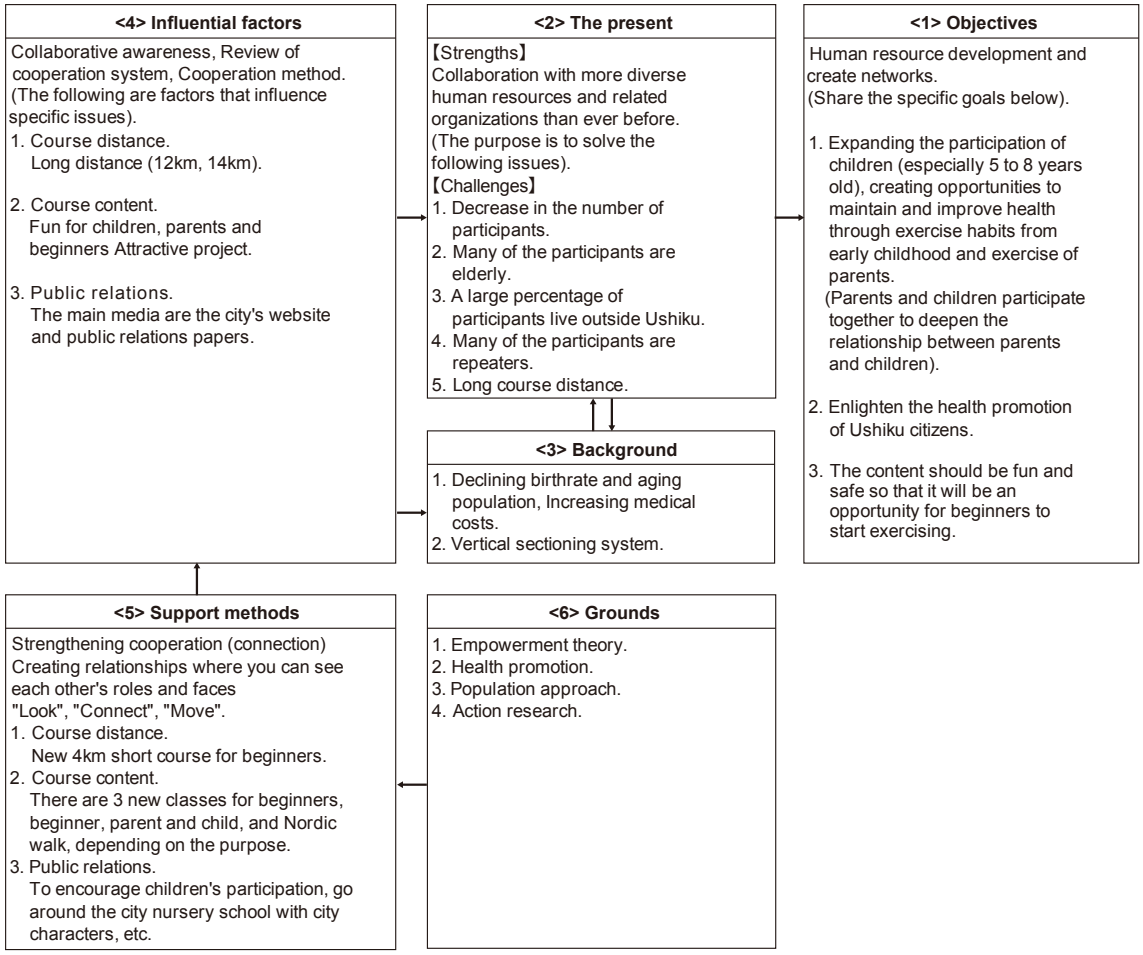
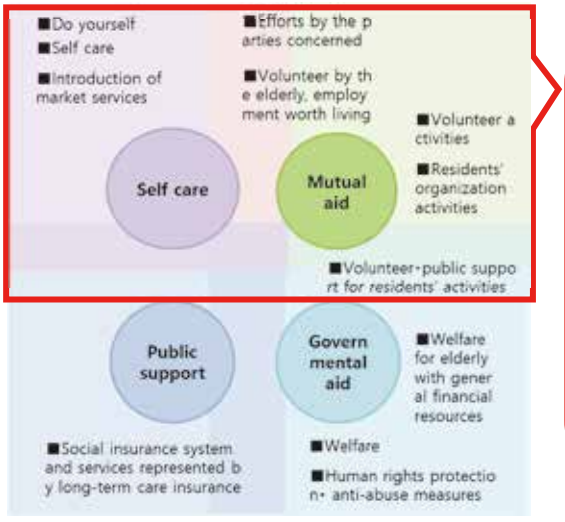


Figure 2 Cooperative system of self-care, mutual aid, public support, and governmental aid (Ministry of Health, Labour and Welfare WEB1 modification)



Health Walk Festival

- Create a system that residents can continue to improve their health throughout their lives in the area where they live
- Activities of resident volunteer groups / Public support
- Collaboration with related companies, etc.

(6) The basis for these practices included the empowerment theory that motivates the parties concerned (Anme, 2004), health promotion aimed at improving quality of life (QOL) based on residents' health conditions (Lawrence et al., 2017), and a population approach (Ministry of Health, Labour and Welfare WEB2) that works on the entire community to reduce health risks. In addition, action research has logically solved the problems of the ever developing and changing complex phenomena of community (Anme, 2019).

Section 2 Action research process

To implement the support design shown in Figure 1, members collaborated with residents and related organizations during each step of the process. First, we identified and analyzed the issues, then shared the vision and linked it to the planning of support methods and the implementation of the "Health Walk Festival."

Step 1 Issue Identification and Analysis

Resident volunteers have been requesting children's participation for a long time, so that the "Health Walk Festival" can become more active. Although the members made efforts to encourage the distribution of leaflets among children through the Board of Education, only a few children participated in 2017. A questionnaire was circulated to understand the implementation system and the needs of the participants. The results of these questionnaires were analyzed and shared at the collaborative meetings (Sugisawa, 2019). The number of participants in 2013 was 507, but was only 334 in 2017, as participation had been steadily decreasing every year. As per the demographics, in 2017, 83.7% of the participants were 60 years or older and 54.8% resided outside Ushiku City. In addition, 63.8% of the participants in 2017 reported that they had participated at least once earlier. Of the two courses (12 km and 14 km) available in 2017, 33.7% of the 14 km course participants reported that their course was too long.

Step 2 Sharing the Aim

In 2018, we shared with other members, our aim to implement the collaborative system. Members agreed that there was a need to increase the participation of younger generations, especially children (5 to 8 years old). However, when they exchanged opinions at the collaborative meeting, the resident volunteers mainly focused on long-distance courses, based on the cases of other local governments recommending walking for children (Japan Walking Association, 2020). More so, the Health Center thought that it would be better to plan a short-distance course, where people can participate in a fun and safe way, so that the "Health Walk Festival" can be used even by those residents who do not exercise regularly, as an opportunity to exercise. This alternative was suggested to encourage the younger generation to adopt a healthy lifestyle early on, in order to prevent any lifestyle-related diseases that may develop when they reach adulthood. Thus, the overall goal stays the same, but the targets and underlying ideas differ depending on the purpose and hierarchy of the group to which they belong. It is important to understand the differences between each goal and to clarify which goals to collaborate with, as it will affect the implementation system and results. It was discussed that it was good for people who could walk, to participate preferably in a supporting role, and that priority must be given to increasing the number of new participants such as children, parents, and beginners to liven up the "Health Walk Festival." It was agreed that it would be necessary to develop a short-distance course for this purpose; thus, 4 km and 13 km courses were introduced in 2018.

Step 3 Support Method Planning

Once a common understanding has been reached about the issues and goals, the specific roles and objectives of members and related organizations and action plan needed to be considered. At this time, it is important to "Look," "Connect," and "Move" (as per Figure 1). It is beneficial to note each member's strengths and the kind of human and social resources available within the community to allocate tasks based on specific goals. For example, a safe 4 km course was developed for the proposed short-distance course, keeping in mind the local volunteers who were familiar with walking in the

Photo 1 Starting point

Photo 2 Courses of the Walk

Photo 3 Goal point

Photo 4 Hospitality corner at the goal point

area where the participants could experience the history and culture of the city.

The course was divided into three classes: beginner, parent and child, and Nordic walk, as per the purpose of the walk. In the beginner class, members who had experience in the correct walking method acted as instructors, teaching the residents. In the parent-child class, quizzes and games related to Ushiku City were conducted by city staff who had children, so that children would enjoy the walk. In addition, private companies with a comprehensive agreement on community development provided gifts such as stationery for children, and winemaking companies in the city sponsored and supplied grape juice, which made the project more attractive. In the Nordic walk class, the members partnered with a local shoe store with a qualified instructor, which made it possible to rent Nordic walking poles and manage the class on the day.

Another point of management for the strengthened support method is public relations activities. The members interviewed the staff, who were parents themselves, about the factors that could influence children and parents to participate; their answers were examined and disseminated with the cooperation of the Public Relations Division. The members examined the design of leaflets, distribution destinations, and distribution methods. As a new initiative, they planned public relations activities, like visiting nursery schools as the city character and informing the children about the joys of walking. The character's name was Ra-shiku, which means to be yourself. The name conveys the meaning that each resident lives in their own way, which makes the whole community shine.

Step 4 Implementation of Health Walk Festival

On the day of the "Health Walk Festival," elementary school students from Ushiku took the player's oath and a live band of resident volunteers performed at the

starting point (see Photo 1). Resident volunteers also played an active role in providing course guidance and distributing barley tea. During the walk, participants greeted each other, while the children, parents, and the elderly cordially interacted with each other (see Photo 2). Although it was a holiday, Ushiku City officials actively took part. At the goal points, the city characters of Ushiku welcomed participants and took commemorative photos with them, and with the cooperation of the Ushiku City Society of Commerce and Industry, a lottery was held through which participants could win special Ushiku City products (see Photos 3 and 4). In addition, Ushiku vegetable pork soup was provided free-of-cost by volunteers (nicknamed "Health Mate"), who are located nationwide to promote health through food. The USHIKU vegetable orchestra is food education characters, representing the 15 most produced vegetables in Ushiku. The characters were named by a child from Ushiku and designed by a local art school graduate.

Section 3 Action research outcomes

Subsection 1 Specific goals of the health walk festival

Results from the questionnaire distributed post the "Health Walk Festival" in 2018 (Sugisawa, 2019), showed that the number of participants increased by 74 from the previous year (2017) and reached 408 (recovery rate 96.7%). The number of participants from junior high school or below increased significantly from 8 (2017) to 73. Subsequently, the participants in their 30s and 40s increased by 13.2% from the previous year. In addition, the number of resident and first-time participants

Figure 3 Responses to the question "Do you want to continue walking?"

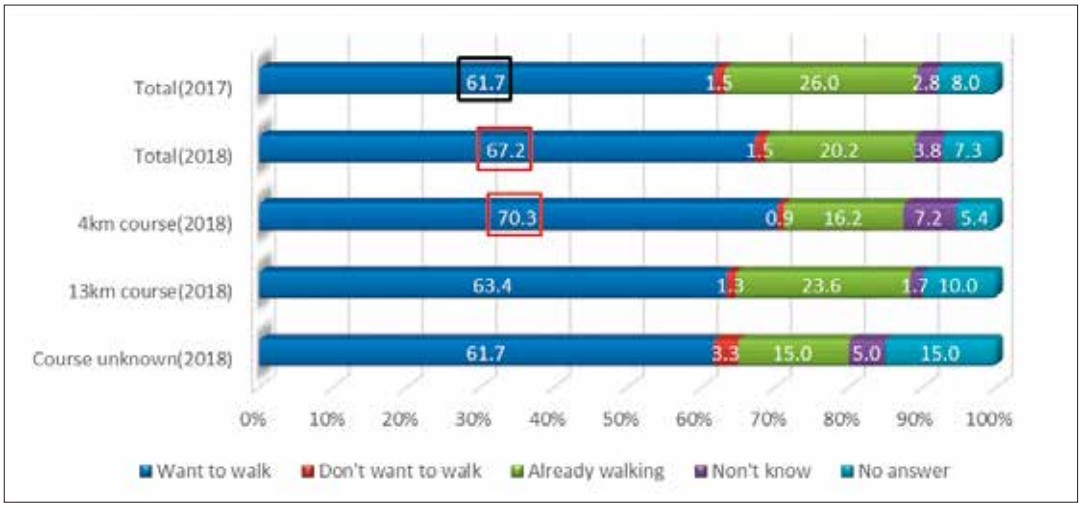
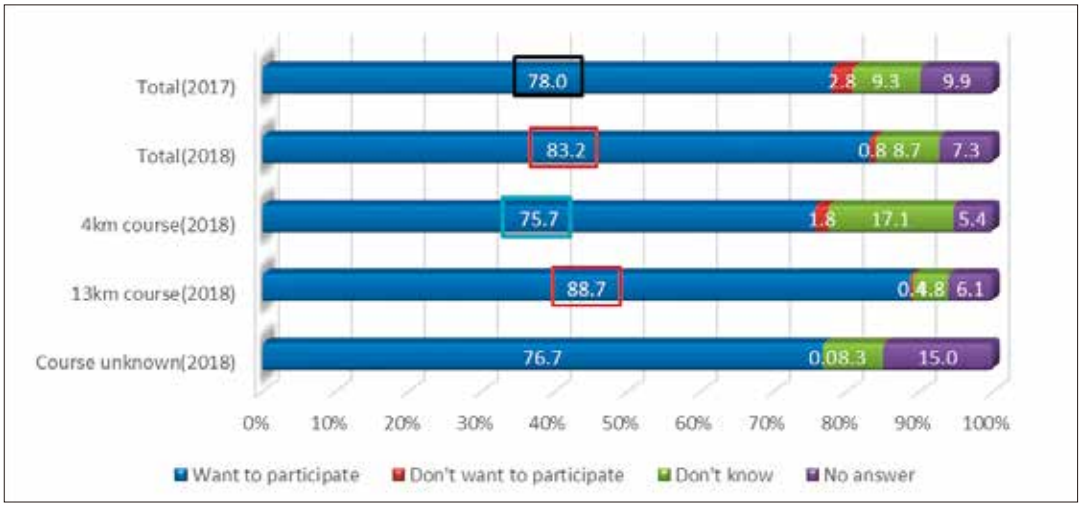


Figure 4 Responses to the question "Do you want to participate again next year?"



increased by 7.7% and 9.8%, from the previous year, respectively.

As for the course distance, 85.6% of the participants reported that the 4 km course was "just right," while 21.4% answered that the 13 km course was "long." Overall, 79.8% of the participants said the courses were "just right," compared to the 76.4% in the previous year. The 4 km course was considered suitable by participants, but the 13 km course seemed to have room for improvement in terms of distance and public relations.

In the previous year, 57.3% of the participants answered that they usually walked twice or more a week, but in 2018 it decreased to 44.5%. In addition, 50.5% and 27.5% of the 4 km course and 13 km course participants, respectively, responded with "Nothing at all" and "Once or twice a month"; thus, the participation of people who did not walk regularly had increased. The usual walking time for 9.5% of the participants (walking practitioners; walk at least once a month) was "less than 30 minutes" in the previous year, but it increased to 20.3% and 12.0% for the 4 km and 13 km courses, respectively, in 2018. The usual walking distance of participants (walking practitioners) was "less than 5 km," which increased from 22.9% in the previous year to 50% in the 4 km course and 30.5% in the 13 km course in 2018.

When asked whether they would like to continue walking, the participants who responded in the affirmative increased from 61.7% in 2017 to 67.2% in 2018 (see Figure 3), which was 70.3% for the 4 km course participants. The event was a good opportunity for those who had previously never walked for exercise purposes. When asked if they wanted to participate next year, the responses increased from 78% in 2017 to 83.2% in 2018 in the affirmative. The proportion of these responses was 75.7% and 88.7% for the 4 km and 13 km course, respectively.

Thus, the overall evaluation showed improvements; but there were still areas for improvement. An analysis of the participant responses regarding the free entry fields in the 4 km course revealed that there was a discrepancy with the starting order. The parents and children were scheduled to start after the other courses, so they could walk leisurely at their own pace. However, the children got tired while waiting. Therefore, an implication for the future is to devise ways for multiple generations (i.e., from children to the elderly) to participate simultaneously.

Subsection 2 Human resource development

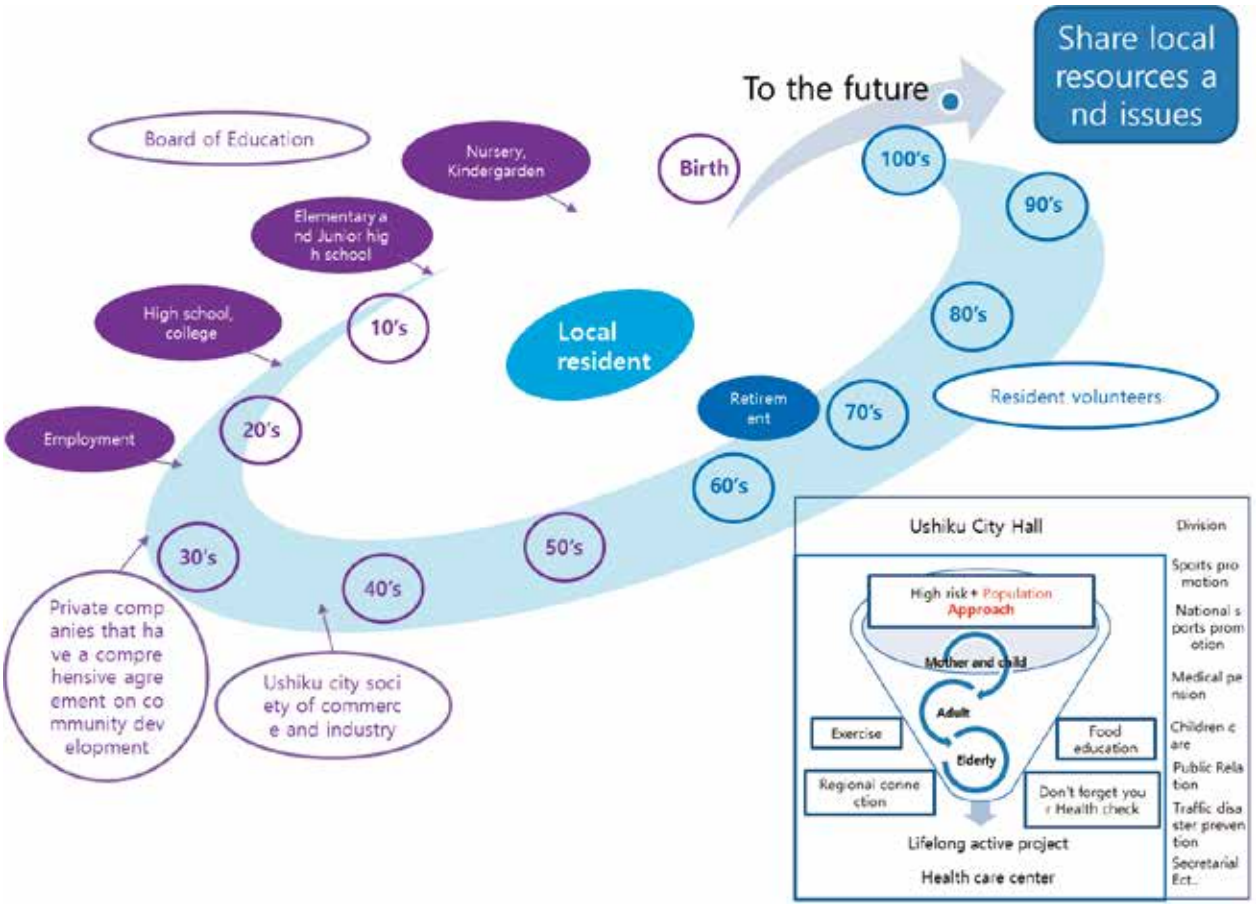
Figure 5 shows the human resources and networks connected with the "Health Walk Festival." The members had been collaborating with organizations related to exercise and diet to increase the number of resident volunteers, as well as organizations that supported management before. This time, they collaborated with other groups for the purpose of attracting children and beginners. Roles and targets were allocated based on their profession and expertise. This initiative was successful in increasing the participation of the target audience and the provision of higher quality programs at the "Health Walk Festival."

One of the major challenges faced by resident volunteers is aging. In the past, resident volunteers set up tents for this purpose, but such a large-scale event had its limitations for catering to the injuries of the aging volunteers in 2017. Therefore, it is necessary to consider the adjustment of the scale of each district and the development of a new network that can engage the cooperation of the younger generation.

New collaborations with private companies and the Ushiku City Society of Commerce and Industry were effective in revitalizing the community, designing content that attracted residents to participate, and improved participant satisfaction. In addition, working with residents and related parties who agreed with the vision and the approach of the project proved to be an effective strategy to partner with organizations such as the Board of Education.

Many related departments within the city hall collaborated for the event, including the Health Center. Horizontal connections at events such as the "Health Walk Festival" will lead to improvements in the quality of various administrative services for residents in the future. Moreover, it is essential to combine the high-risk approach with the population approach to create a healthy community for the residents at the Health Center—an

Figure 5 Comprehensive multi-generational and multi-disciplinary networks that connect residents for health promotion (Sugisawa, 2019 partially modified)



approach that brings together multiple generations and disciplines and proves effective in solving various issues and binding the community.

In the field of community health, retired elderly people in their 60s and over are frequently contacted, but this time we were able to connect with children and parents. In Japan, Maternal and child health services support the children and parents from birth, but after that the contact between the younger generation and the community health gradually decreases to only school and occupational health. In the future, points of contact need to be created between the younger generation and the community health.

Section 4 Empowerment tips in action research

The tips for empowering human resources and networking are summarized according to three categories: self-empowerment, peer-empowerment, and community-empowerment.

1. Self-Empowerment

At this "Health Walk Festival," residents who were knowledgeable about health promotion concepts such as exercise and meals participated in supporting children and beginners while having fun. The key to self-empowerment is to impart this knowledge to others, play a supportive role, and enjoy the experience. By doing so, participants experience immense satisfaction and a strong sense of purpose, which improves their emotional maturity and makes them more empathetic. Thus, active participation of each resident will lead to the growth and improved health of the entire community.

2. Peer-Empowerment

The key to peer-empowerment is to strengthen collaboration. It provides a place to build relationships through personal encounters at gatherings, meetings, etc. Furthermore, it is important to have an equal partnership based on trust and mutual respect to draw out each other's strengths. Action research methods are useful for achieving shared goals and solving problems.

It is necessary to identify and analyze the cause of the issues, employ a practical solution, and continue to do so in collaboration with the residents.

3. Community-Empowerment

The key to community-empowerment is to collaborate with diverse human resources and organizations to solve problems. Even if you usually work with the same connections from similar industries, it is better to solve shared community issues through collaboration, as it will help improve results and the situation for the better. It is necessary for residents as well as professionals who support the health promotion for the community to have a strong network that connects vertically and horizontally. Given the declining birth rate and aging society, the connections of residents and the community should change. In order to create a sustainable network that brings out the power of the entire community, a mixture of multi-generational and multi-disciplinary areas, with the shared vision of health promotion, will provide guidance for building connections in future communities.

Acknowledgement

The authors would like to thank all the staff, including Yukie Naito, General Manager of Health and Welfare Department, Ushiku City, Ibaraki Prefecture, Japan, and Kyoko Watanabe, Manager of Health Promotion Division, for their cooperation and advice in writing this manuscript.

References

1. Anme T, Empowerment and Care, ISHIYAKU PUBLISHERS, INC., 2004.
2. Anme T, Creating Empowerment in Community: Theory and Practice from an International Perspective, NOVA, 2019.
3. Ministry of Health, Labour and Welfare (WEB1) March 2013: Five components of the comprehensive community care system and "self-care, mutual aid, public support and governmental aid." https://www.mhlw.go.jp/seisakunitsuite/bunya/hukushi_kaigo/kaigo_koureisha/chiiki-houkatsu/dl/link1-3.pdf (Accessed November 5, 2020)
4. Ministry of Health, Labour and Welfare (WEB2) Health Japan 21 General Remarks Chapter 3 Basic Strategy Section 2 Working on the target group, https://www.mhlw.go.jp/www1/topics/kenko21_11/s0.html (Accessed November 4, 2020)
5. Yuka Sugisawa, Human Resource Development and Comprehensive Community Empowerment, Comprehensive Community Empowerment Strategy for 100 years of Life Symposium on Japanese Society of Public Health 2019.
6. Lawrence W. Green, Marshall W. Kreuter (Author) , Msamine Jinba (Translation) , Health Program Planning: Educational and Ecological Approach 4th edition, IGAKU-SHOIN, 2017.
7. Japan Walking Association. Recommendation of walking for children https://www.moonstar.co.jp/whatshoes/hoiku/hoiku.pdf (Accessed October 30, 2020)

Chapter 9

Comprehensive Evidence-based Child Care Support Systems

Section 1

Action research story

The Sustainable Development Goals (SDGs) are strongly linked to the healthy upbringing of children. Goal 1: Eradicate poverty, Goal 3: Be healthy, and Goal 4: Quality education leads to an environment in which children grow up healthy in a secure environment, where they can learn to live in the society. Goal 5: Gender Equality, Goal 8: Adequate Good Jobs and Economic Growth, Goal 10: Reducing Inequality, and Goal 16: A Peaceful and Just Society, directly relate to the lives of families surrounding their children.

To support the healthy upbringing of children, "high-quality childcare support" for children and families is essential. What comes to mind when you hear the phrase "quality of child care support"? The Organization for International Economic Cooperation (OECD, 2015; 2019) states, "It is all about the environments and experiences that child care settings prepare children for that support their physical and mental well-being and enrichment." Studies around the world demonstrate that high-quality parenting support contributes to future well-being and better lives for all children, including those who are poor.

In this chapter, we introduce action research aimed at "realizing evidence-based, high-quality child care support" with child care support professionals to ensure the healthy upbringing of children. Evidence-based support, evaluation, and self-assessment are important for childcare support professionals to demonstrate their expertise. In 1998, empowerment skills for childcare professionals were established, and action research was introduced. Through a cohort follow-up study conducted over more than 20 years, we have scientifically clarified the factors that affect children's healthy growth, in collaboration with children, parents, and practitioners who were involved. We analyzed data from more than 50,000 individuals and developed an evidence-based support tool. In addition, we developed a web-based system that allows easy data entry and immediate display of the results and utilized it to demonstrate the expertise of practitioners and the cooperation of multiple professionals. In addition, we conducted training sessions for various professionals and continued to provide education for high-quality childcare support.

To create mechanisms to support the dreams of children globally, "child-rearing empowerment," which draws out children's growing abilities, parents' abilities to raise their children, and the ability of the communities and societies to support parents, is essential. Children, parents, and supporters can collaborate as a team by using community empowerment techniques.

To support all the children across the world to have dreams and live well, we will use the "Design for supporting empowerment" to create a plan (Figure 1), which includes the following:

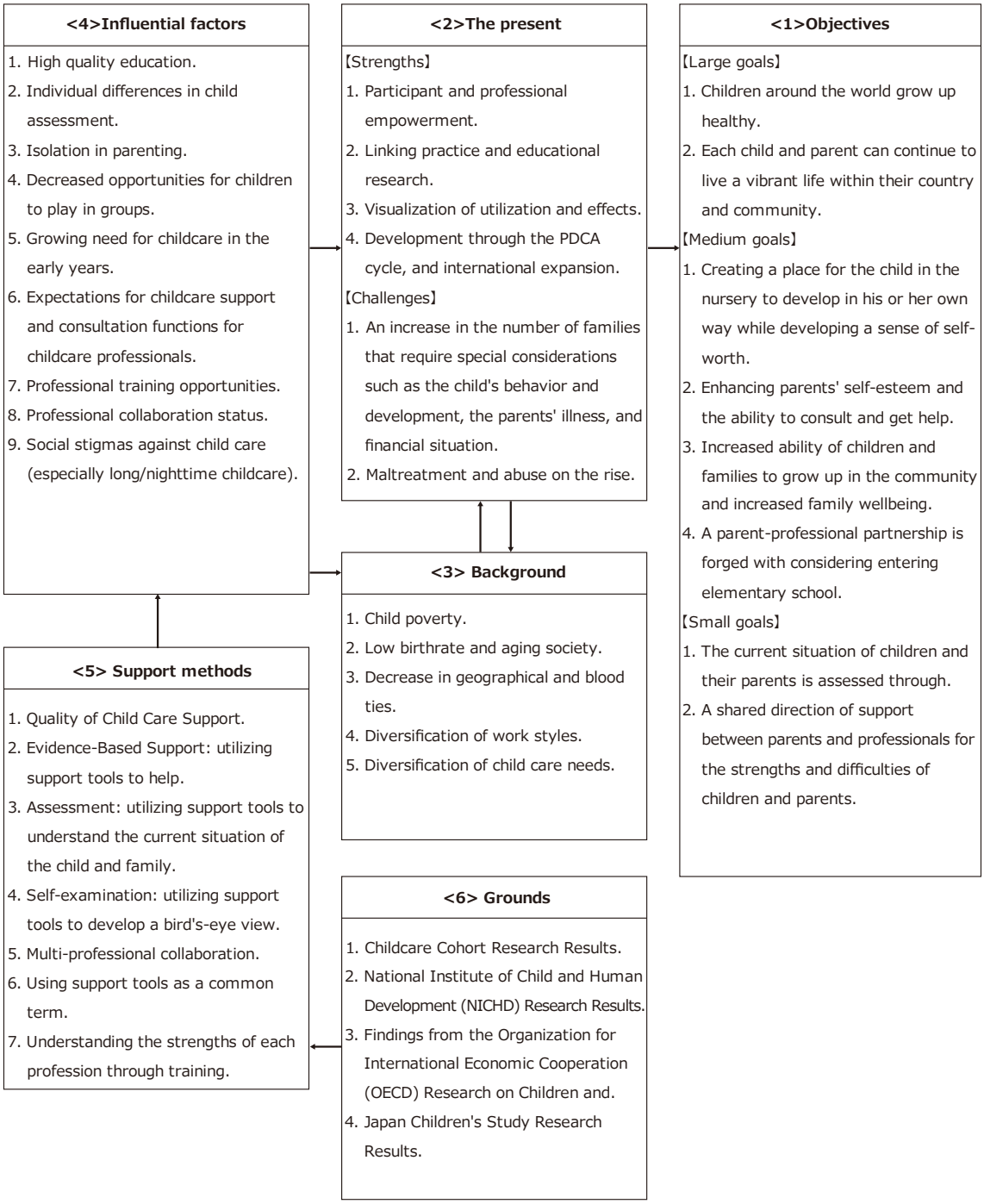
1. Objectives

The overall goal is to ensure the healthy growth of children globally. In addition, we aim for each child and parent to continue to live a vibrant life within their country and community.

2. The present

There were several obstacles to the previously mentioned goal: an increase in the number of families that require special considerations such as the child's behavior and development, the parents' illness, and financial situation. The potential solution was to empower participants and professionals, link practice and educational research, visualize utilization and effects, and develop through the Plan-Do-Check-Action (PDCA) cycle, and international expansion more than ever before.

Figure 1 Design for supporting empowerment



3. Background

These issues exist against the background of child poverty, low birthrate and aging society, decrease in geographical and blood ties, diversification of work styles, and diversification of child care needs.

4. Influential factors

These specific issues are influenced by factors such as high-quality education, individual differences in child assessment, isolation in parenting, decreased opportunities for children to play in groups, the growing need for childcare in the early years, expectations for childcare support and consultation functions for childcare professionals, professional training opportunities, professional collaboration status, and social stigma against child care, especially long/nighttime childcare.

5. Support methods

As a support method, an emphasis was placed on strengthening the quality of child care support, evidence-based support, assessment using support tools to understand the current situation of the child and family,

self-examination using support tools to develop a bird's-eye view, multi-professional collaboration, using support tools as a common term, and understanding the strengths of each profession through training.

6. Grounds

These practices were based on findings from the Childcare Cohort Research, National Institute of Child and Human Development (NICHD) Research, the Organization for International Economic Cooperation (OECD) Research on Children and Childcare, and Japan Children's Study Research.

Section 2 Action research process

Subsection 1 Developing support tools for evidence-based quality support

In practice, there is a need for early identification of children and parents who need various considerations and for appropriate support and collaboration based on the characteristics of the child and family. At present, we constantly struggle with the question of how to recognize, decide, conduct, and evaluate "children with difficulties " and "guardian's signs."

We analyzed the factors that affect children's healthy development and developed five scientifically based support tools (Child Development Scales, Social Skill Scale, Checklist for Children with Difficulties, Index of Childcare Environment, and Index of Center-Based Childcare Environment) as a guide (index) for support. These support tools serve as a map or guideline to indicate where a child is in terms of the standard and the elements of a desirable environment in terms of future projections for all children in the country.

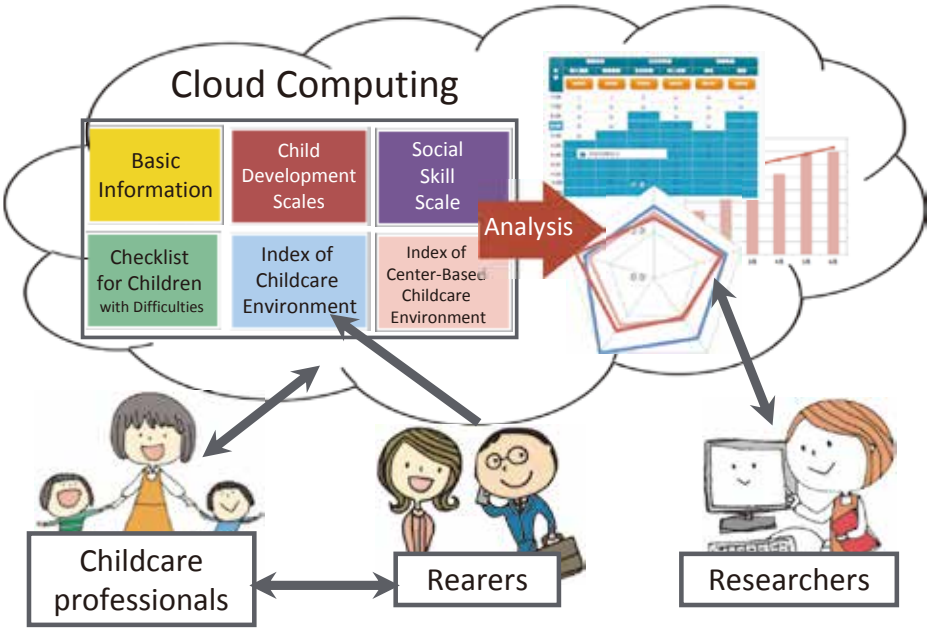
The development began with the sharing of goals and content with the children, their parents, and professionals. A cohort follow-up study was conducted to obtain scientific evidence, and interviews and observational evaluations were conducted over a five-year period to ensure the validity of the indicators.

During the course of action research, we ensured opportunities for communication during the monthly roundtable meetings. They provided opportunities for feedback on the results of the research and interactive conversations with researchers and child care specialists during roundtable meetings.

Subsection 2 Web construction for support tools to apply in practice

To maximize the use of support tools, we built a web-based support tool utilization website (Anme, 2014b; 2019). The web-based support tool utilization website, which allows for easy input and immediate viewing of

Figure 2 How the web utilizes support tools



results in graphs, has been used as a tool to build a sense of trust among children, parents, and practitioners, as well as to unify the perspectives of multidisciplinary teams and to create a common understanding. Furthermore, through the accumulation of data on the web, we continue to conduct action research to verify empirical knowledge in practice as scientific knowledge. Web-based support tools have realized the creation of a system of evidence-based childcare support from the perspective of empowerment that draws out the power of those involved to the maximum extent (Figure 2).

Subsection 3 International deployment of support tools

Assessment and support mechanisms using support tools can be applied to countries worldwide. In Japan, due the increase in the number of non-Japanese families, the need to provide support for the foreign residents is increasing. Therefore, we have translated the support tools into languages such as English, French, Portuguese, Chinese, Korean, Mongolian, Indonesian, Tagalog, and Bangladeshi. In addition, we collaborate with researchers and practitioners at home and abroad to standardize the support tools based on the culture of each country and use them in a form that allows for international comparison.

Subsection 4 Conducting training for the use of support tools

From the perspective of empowerment, which draws out the strengths of children, parents, and professionals, we developed a training program to utilize support tools and practice high-quality support. We utilized the focus group interview method (Anme, 2001), which reflects the real voices of the people involved in the program, to extract the educational needs of childcare support professionals and develop the content. As a result, we identified the needs for a training program in cooperation with other professionals, which would contribute to the formation of professional competence, such as "connection with other professionals," "connection between training and practice," "communication between staff members," "mutual understanding," "dissemination of our practice and feedback," and "rationale for support" (See Table 1).

Reflecting the elements extracted, we planned training that focused on multi-professional collaboration and professional competence building using support tools.

Section 3 Action research outcomes

There are many results of action research that have been conducted for over 20 years (see this action research website), but the following three points are particularly worth mentioning.

Table 1 The education needs of cooperating child care specialists while using support tools

Important Categories	Important items (excerpt)
Connections with other professionals	Don't have much opportunity to talk to other professionals. I want a support network that I can go to when I need help.
Connection between training and practice	The realization of education on how to relate theory to practice. I want to know what I can use in childcare.
Communication among staff	It is important to be able to share the intent of the childcare with other staff members. You need someone who puts together a team as well as someone with childcare skills.
Mutual understanding	I don't know what other professionals are doing. I feel like different professionals have different roles and different goals.
Transmission and feedback	Awareness and professionalism dissemination of integrated childcare. Feedback from others helps us see the implications of each other's practices.
Evidence	I want a professional who can explain the evidence. Some professionals can't figure out why they need evidence.

Figure 3 Changes in the behavior of childcare users and non-users after one year

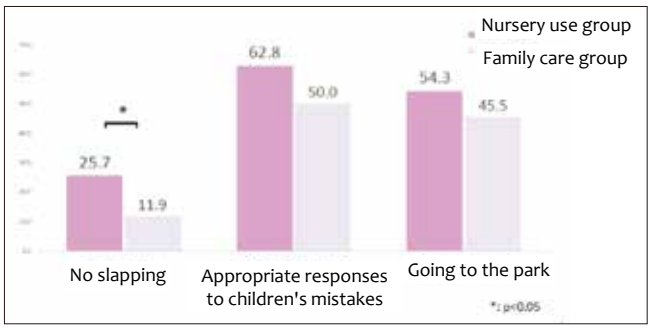
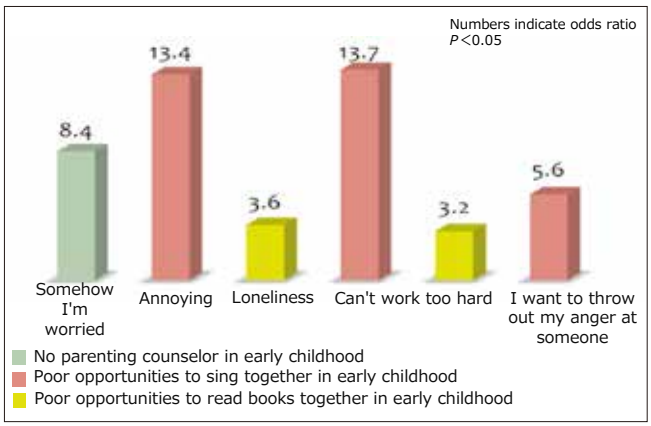


Figure 4 Effects of high-quality childcare use on parental involvement (one-year follow up)

Figure 5 Effects of child-rearing support on children in school children



Subsection 1 Quality of parenting support affects the future wellbeing of children and their parents

Figure 3 illustrates that parents who used childcare centers significantly reduced undesirable home involvement behaviors, such as hitting their children, compared to those who did not use childcare centers (Anme et al. 2016). In addition, when the parents who used to use high-quality childcare services were surveyed about the change after one year, 61.4% of parents who responded that they "hit" their children stopped hitting them, and about 60% of parents who used to engage in undesirable behaviors improved (Figure 4).

Subsection 2 Use of evidence-based support tools can help with quality parenting support

We used a support tool to evaluate early childhood involvement and examine the effects on school-age children over time. Parenting factors when the child was a toddler were significantly related to stress responses later in life, such as at the school-going age (Anme, 2013).

Figure 5 illustrates that when parents did not have many advisors for childcare during early childhood, the risk of their children feeling "somewhat worried" was 8.4 times higher than when they had advisors for childcare (Anme, 2019). Similarly, the lack of opportunities to sing together or read a book to their children during early childhood tended to increase the risk of stress reactions such as "irritability," "not being able to do much," "loneliness," and "wanting to take out one's anger on someone" during the school years. Use of support tools can help us understand the situation of the child and family and lead to evidence-based early intervention for the child and family. In addition, an evaluation of the effectiveness of interventions using supportive tools can provide high-quality parenting support and promote the well-being of children not only during infancy but also in the future.

Subsection 3 Training with supportive tools is effective in the empowerment of the child care specialist

As a process evaluation, we qualitatively organized the records of statements made during the program and group work in teams. A post-evaluation was conducted using a self-administered questionnaire as a quantitative survey (Tanaka et al. 2020). The content of the questionnaire was evaluated using a 6-point scale from "strongly agree" to "strongly disagree" for six items, such as the significance of the program and understanding of the program, and the contents of the free entries were qualitatively reviewed (see Table 2 and Figure 6).

Table 2 Characteristics and content extracted from training records

Important Categories	Important items (excerpt)
Understanding of other professionals	The role of each of the multiple professionals was understood. I found that different types of jobs are approached in different ways.
Feedback of the practice	I was able to think specifically about the cooperation of the professionals in my childcare center.
Support during the child's school years	Thinking about the importance of living in the community helped me see what's ahead.
Informal support	Realize that family is not only a target for support but also a resource. There are a lot of possibilities in the family.
Acceptance and motivation to practice	We were able to exchange information, which made me realize that what I valued was not wrong and gave me hope for tomorrow.
Motivation to share with peers	I was able to share thoughts, knowledge, and experience. I want to invite the staff and people who are working together.

Figure 6 Evaluation of participants after the program

Section 4

Tips for empowerment in action research

This action research is characterized by the continuous participation of the professionals involved and the users, and by the implementation of the PDCA cycle based on scientific evidence. The following four points are the tips for empowerment:

1. Create mechanisms to encourage participation.

It is important to devise ways to enable various forms of participation. By providing various forms of participation, both face-to-face and online, we can create a mechanism that allows the participants to be involved in a flexible manner by choosing the form that best suits their motivation and environment.

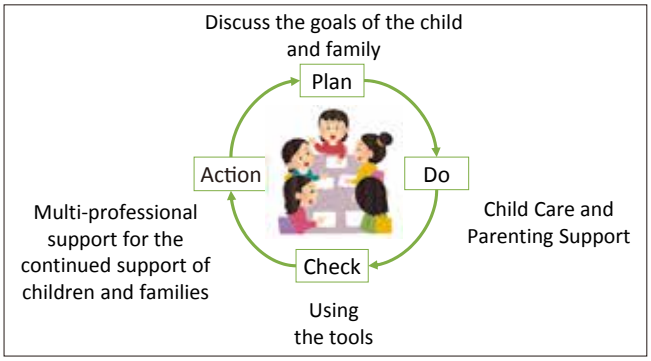
2. Goal clarifications

To achieve the continuous participation of child care specialists, it is important to clarify and share these goals. The motivation for child care specialists is the clear goal that high-quality child-rearing support is necessary to ensure the healthy growth of children. In this action research, we share the goal of "creating an environment for the healthy upbringing of children."

3. Applications and visualization of effectiveness.

By "visualizing" the methods of use and their effectiveness through specific examples, the expectations of participation are increased. For example, it is effective to use the following practical examples of support tools to help the participants experience their effectiveness in an easy-to-understand manner.

Figure 7 Action research and PDCA cycle



1) A case study that clearly indicates the child's situation and leads to more appropriate support

2) Examples of evidence-based explanations of the child's and family's condition

3) Examples of ease of communication when talking to other professionals

4) Introduction of ways to improve operations and reduce the workload of staff

Sharing past experiences of how these methods have worked may motivate people to use them.

4. Expectations for constant development.

Action research is constantly evolving. That is, it is a matter of continuing to run the PDCA cycle based on scientific evidence. One tip is to share the expectations for this development with the participating members (see Figure 7).

The key is to take advantage of the strengths involved in the group and to create an atmosphere in which it is important to consider the environment for children together while enjoying the differences in perspectives. Continued use of the PDCA cycle to determine the strengths of the group will lead to sustainable development.

References

1. Anme T, Group Interview Method in Human services: Development of qualitative research methods based on scientific evidence, Ishiyaku Publishing, 1-40, 2001
2. Anme T, Community Enhancement: Creating a Party-Led System, Japanese Society of Pediatric Psychiatry and Neurology, 48(1), 7-13, 2008
3. Anme T, Parenting: Challenges, Practices and Cultural Influences from Japanese Cohort Study, Nova Science Publishers, 14, 225-232, 2013
4. Anme T, Empowerment science that is close to the brilliance of life: everyone is the hero A new way of symbiosis, Kitaoji Shobo, 2014a
5. Anme T, Evidence based Child Care, Empower Skills for Child Care Professionals: Advanced Manual, Nihon shoni iji shuppansha, 2014b
6. Anme T, Tanaka E, Watanabe T, Tomisaki E, Mochizuki Y, Does Center-based Childcare Play a Role in Preventing Child Maltreatment? Evidence from a One-year Follow-up Study, International Journal of Applied Psychology, 6(2), 31-36, 2016.
7. Anme T, Empowerment Sciense for opening up the future of children, The Institute of Seizon and Life Sciences, Nippon Hyoron Sha. Publishers, 2019
8. Hongo K, Sawae Y, Suzuki T, Koizumi Y, Iijima M, Survey on behavioral characteristics of children who are "concerned" in daycare centers and responses of nursery teachers, Japanese Journal on Developmental Disabilities, 25(1), 50-61, 2003
9. NICHD Early child Care Research Network, Child Care and Child Development: Results from the NICHD Study of Early Child Care and Youth Development, The Guilford Press, 2005
10. OECD, Starting Strong IV: Monitoring quality in early childhood education and care, Paris, OECD Publishing, 2015
11. Tanaka E, Tomisaki E, Watanabe T, Anme T, Understanding the needs for the development and dissemination of high-quality childcare at night: Using FGI, The Journal of Child Health, 78, 183, 2019
12. Tanaka E, Tomisaki E, Watanabe T, Sawada Y, Sakai H, Tanaka T, Anme T, Empowerment Approach for Developing Inter-Professional Education Program and its Evaluation: Focused on Competence Improvement of Childcare Professionals, J. Seizon and Life Sci, 31(1), 131-140, 2020
13. Togo E, The relationship between the mental health of nursery teachers and the work environment of nursery schools, Childcare and health, 10(1), 89-90, 2014
14. Zenkokuyakanhoikuenrenmei(National Federation of Night time child care), Night care and children, Kitaoji Shobo, 2014
15. Evidence-based Childcare, Empowerment Skills for Childcare Professionals Society. http://childnet.me/eindex.html (Accessed December 30, 2020)
16. Empowerment for Child Development and Child Care: Evidence from Cohort Study. http://plaza.umin.ac.jp/~empower/ecd/en/ (Accessed December 30, 2020)

Chapter 10

Internet-based Child Support

Section 1

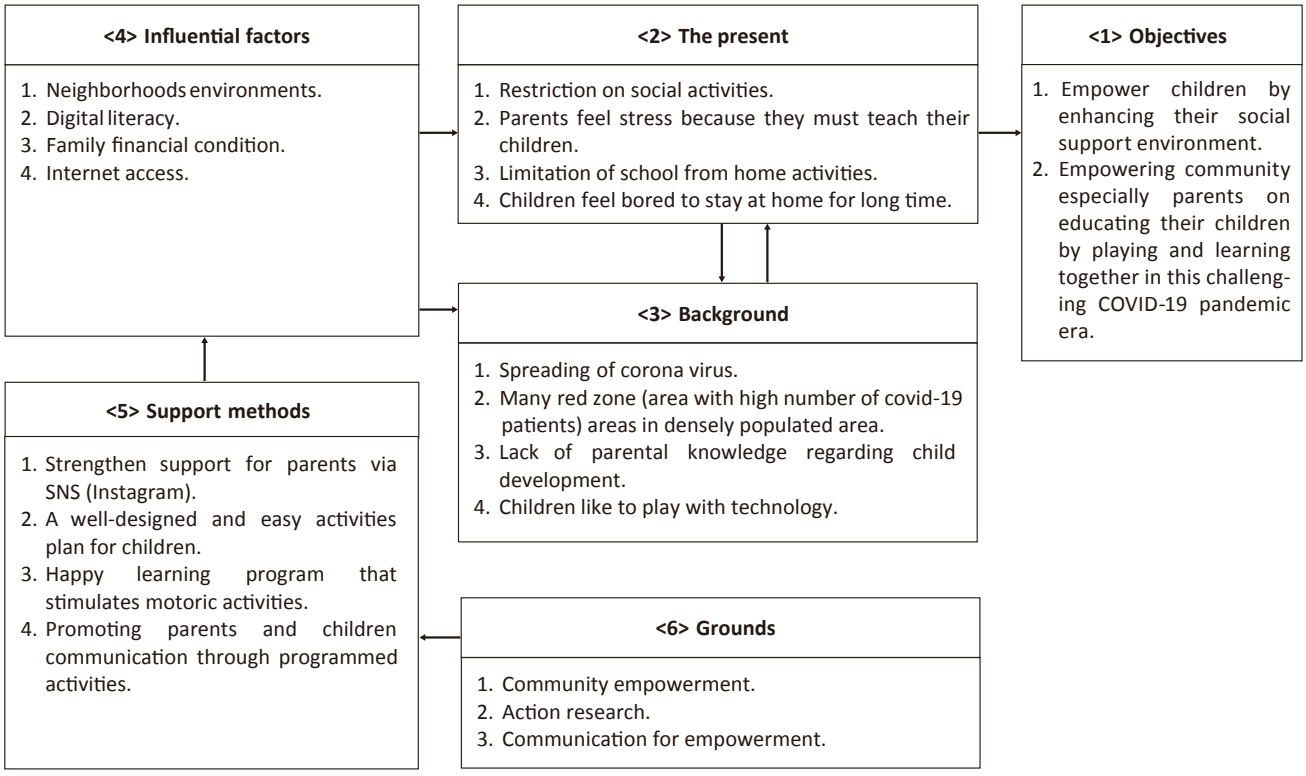
Action research story

Every child is unique and special, it is an empowerment that will awaken their strength, gives them hope and courage. Childhood experiences will be a good memory and affecting their future as adulthood thus the action linking empowerment between individuals, peers, and community focusing on children is needed. Moreover, action research is important because when children feel enjoyment they will do activities that promote their self-actualization (Anme, 2019)

Child development especially in their early childhood is a precious time. In their first 1000 day, a child will learn many things and starts to explore the world around them. Ensuring good development of every child is essential to the future of a country. Indonesia is a country with almost 80 million children (Unicef, 2020) and ranked as the 4th most populous country with children in the world. In order to keep the children to have a good education and development, as stated in the Indonesia Presidential decree No. 60 on holistic-integrative early childhood development, there must be a reachable and applicable learning program for Indonesian children.

While the government and all professionals bringing their best efforts to create an empowering environment for children, the world in 2020 facing an enormous challenge due to Corona Virus Disease (COVID-19). The COVID-19 pandemic hits many sectors including the economy, daily activities, and children's lives. All sectors should obey health protocols, such as the physical distancing rule and wearing masks every time to slow down the virus spread, therefore it is challenging for children to interact and play with their friends.

Figure 1 Design for supporting empowerment



Furthermore, The closing of schools and public facilities have exacerbated the impact on children. Hence, playing and learning together via the internet could be a solution to this challenge.

In Indonesia, nearly 47 million households (66 percent) have access to the internet (Unicef, 2020). The internet-based child support is barely chosen before the pandemic and all the professionals eager to maximize this new method of empowerment through innovations and actions. To help understanding the needs of the subject in a program, we can use a design for the empowerment process as follows:

The further description of steps in Figure 1 are as follows:

(1) The intended results are to empower children by enhancing their social support environment and also empowering the community especially parents on educating their children by playing and learning together in this challenging COVID-19 pandemic era.

(2) The current limiting condition in Indonesia due to the Pandemic of COVID-19 is the restriction on outdoor and social activities due to the closure of public spaces and schools. there is limitation of activities to do and content to share during online learning for children of pre school-age. Further, some parents choose to forbid their children to play with their friends, considering the fast spreading of COVID-19. These conditions thath has been going on for months now make the children feel bored and start being inactive. On the other hand, working parents who usually spend most of their tme at work, were now required to share their working-time to accompany and teach their children at home, which added a new stress in daily life. This unusual level of stress can be helped through community empowerment.

(3) Backgrounds of this program are the concern from the parents due to the fast spread of corona virus spread since there are many red zones (area with high number of covid-19 patients) areas in densely populated neighbourhoods. The lack of parental knowledge of child development, as well as children's preference in playing with technology are the reasons why the internet-based empowerment program is needed.

(4) the issues are influenced by several factors, such as the neighbourhoods environments, digital literacy, family financial condition, and internet access. Firstly, safe and good neighbourhood environments will support child development, they can play together and enjoy differences in daily lives. Secondly, digital literacy in Indonesia is increasing It is reported that internet users in Indonesia reached 196.7 million (APJII, 2020) thus it is reasonable to conduct many internet-based programs. However, financial condition also plays an important part as an influencing factor. This pandemic has driven instability in the economic condition in the country as well as many families in Indonesia. The internet service fee could be a limiting factor for children to access the internet becomes It is a problem for some family since in the pandemic of COVID-19 has driven instability in economic condition. Nevertheless, The wide range of internet access is still a benefit that enavle children from many places to join an internet-based programs.

(5) For the support method, the SNS can be used to strengthen support with parents along with a well-designed and easy activities plan for children makes them feel happy while learning program that stimulates motoric activities, it will also become a media for promoting parents and children communication through program activities.

(6) The basis theories including community empowerment, communication for empowerment, and action research. We can link the technology with community empowerment and developing the empowerment program through plasticity, diversity, and integrality elements (Anme, 2019). The plasticity will help the parents to face the challenge and stress with a positive attitude. The diversity elements will help increasing the capacity to accept various possibilities of empowerment programs and integrality helps to integrate all the program makers, parents, and children together. Communication for empowerment is important to make it enjoyable, building people's capacities and sharing resources (Cadiz, 2005) The action research helped to make a well-organized program to improving practices in society. It is focused on generating practical solutions to the problems and the ability to empower people (Anme, 2018)

Section 2

Action research process

Subsection 1 Issue identification and analysis

The restriction of activities due to the pandemic makes it difficult for children to interact with their friends. Not only the children, but also the parents are affected because they have to teach the children by themselves. Most parents are not confident enough to explore their capacity. Guidance on materials and playful methods are needed to support and empower parents on child development matters.

Subsection 2 Promoting and sharing the purpose of the program

The core member of Harmony playing class found it is important to support parents and children together with learning while playing program through the internet. The promotion of the program is based on SNS. The internet-based program makes it possible for children to meet friends from all over Indonesia and appreciating differences and diversity.

Subsection 3 Overview of the action research

Harmony playing class is an online learning program for preschool children. The class begins in early 2020. At first, the class was held for only 2 weeks for a donation. However, the class receives very good responses from parents, and they asked whether the class could be continued into a routine weekly class. Starting from July 2020 the class was held professionally to entertain and facilitate children who have been affected by the COVID-19 pandemic. The class itself was inspired by The Japanese daycare system that focused on child development in an interesting and playful method. Therefore, the name is "playing class", because the focus is playing while learning.

It is a twice a week class that the teacher and the students regularly meet. The class using the internet and an online meeting application. There are two grades, for the older (3.5 to 5 years old) and younger (2 to 3.5 years old) children. Most parents find the class so helpful and joyful, thus in December 2020, it has 53 children in the older class and 50 children joining the younger class. In a 30 minutes session, there are one homeroom teacher and one teacher assistant and around 20 children.

The class starts with the opening session for approximately 7 minutes. At the opening session, they sing together while dancing, and the teacher will call each student by their name. Calling each student one by one will help children to increase confidence and being brave. The class continued by doing exercise together with joyful song. For the next 12 minutes they will learn materials as themed before (for example things at the hospital, police activities, etc), listen to the teacher's storytelling, doing games, and sing a song together. Another 10 minutes is the session for crafting to maintain their motoric skill, the equipment needed was already told to their parents before the class. The last session is singing a closing song together.

Before the week started, the teacher arranged the materials and the lesson plan for the following week using the internet and inspired by many sources such as Pinterest, early childhood education blog, and YouTube.

Figure 2 Weekly lesson plan

The lesson plan was given to the parents via WhatsApp before the lesson. The weekly theme, weekly goals, and concepts are varied each week. In the above lesson plan, it is stated that in a week the children will learn four major elements: literacy, numerical, book, and song of the week.

Furthermore, the scope of the lesson will cover gross motor skills such as indoor tennis, playing with a small ball, hitting a ball with racket; fine motor skills such as

Figure 3 Shared materials for a craft session

chalk drawing; linguistic by discussing children books; craft by making playdough, paper bag activities, etc.; math/science by doing experiments; social-emotional by learning to use "thank you" in daily lives and special activities by having an interesting game.

The parents were also given the detail of the activities such as crafting. The craft usually use an easy to find materials and method. For example, for earth playdough the parents only need playdough and the instruction was already prepared and shared with the parents.

All the children will make a simple craft together with their parents to build a connection between them and the results will be shown in the class. It is important for their self-actualization. The children can realize their capabilities and their potential to others.

Figure 4 Online session (showing the craft)

In the class, the teacher will smile and have a joyful expression to make the children comfort and enjoy the session. They also have two-way interaction because every child will be asked to unmute their microphone and turn on their video on Zoom. All of the children can see their teacher and friends sing along and dance with them.

Figure 5 Harmony playing class session (sing and dance together)

Section 3

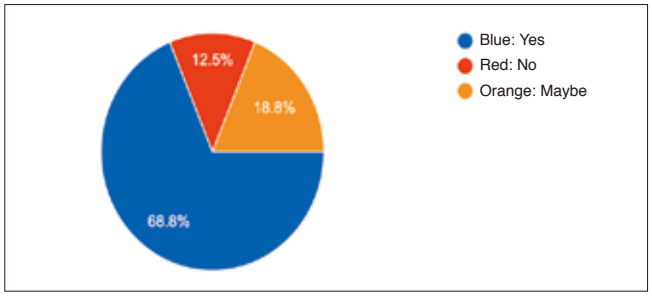
Action research outcomes

The online questionnaire has been distributed to the parents in December 2020. From 32 responses, it is known that the kids have been joining the program for 8 weeks (2 months) on average. 50 percent of the parents know the program from SNS while the rest know from friends or relatives. The SNS application that the program actively use is Instagram. As of December 2020, the Instagram account of Harmony playing class has 876 followers, indicating that a lot of people are interested in the program.

For the reasons for joining the program, 87.5% of parents choose to join for developing their child's creativity, 59.4% looking for friends for their child and 81.3% is to fill the free time. Since the pandemic hits, the children have more time to stay at home and joining the program is helpful to fill their free time, boosting creativity and socialize with friends. Some parents (less than 10%) also think joining the program will be helpful as preparation before their children go to school.

68.8% of parents think joining Harmony playing class improving their child's confidence and 78.1% of parents think the class unleashes their child's creativity while 68.8% of parents think joining class also unleashes their child's potential.

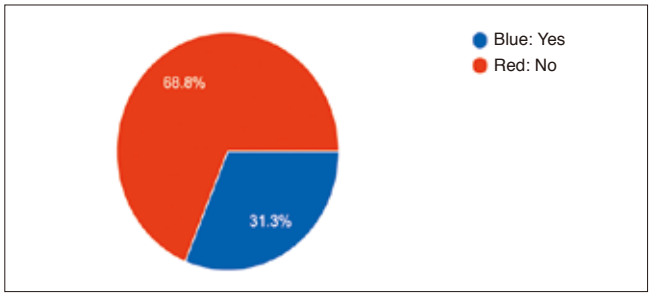
Figure 6 The effectiveness of Zoom as internet-based media



Regarding the media to support the internet-based method, 68.8% of parents think the use of Zoom as media in the class is effective to help their children socialize with others, 12.5% think Zoom is not effective and 18.8% think that Zoom is maybe an effective media. Although most parents think that Zoom is effective, some problems appear such as the video of dancing movements did not run smoothly and the class is too noisy. Thus, some students could not hear what the teacher said. That might be the reason some parents think the class is may or may not be effective. The improvements can be made by initiating rules when the class begins that everyone should listen to one another or using a small size video to make sure it will run smoothly.

Materials for the children were given prior to the class. The materials consist of a weekly lesson plan, craft, and printable activities via Google drive. Based on the survey, 31.3% of parents were very satisfied, while 43.8% of parents were satisfied and 25% of parents were quite satisfied with the class materials given. Also, the result for teacher competency to deliver the materials and act as the core member in the program is 31.3% parents very satisfied, while 46.9% parents satisfied and 21.9% parents quite satisfied with the competency of the teacher in the class.

Figure 7 Obstacles experienced during the program



Most parents (68.6%) said there is no trouble at all while they were joining the class. While the rest said that sometimes the internet connection at their home was troubled due to the weather, for some children it was hard for the children to focus because of the noises and there is also a child that experienced difficulties operating Zoom.

Section 4 Empowerment tips in action research

From this program, we knew that we should not be afraid to have some innovations and try new things. Even at the hardest time like the COVID-19 pandemic, we cannot stop empower people and we should find a creative way to empower people. There are also seven tips for promoting empowerment that we can link to the action research (Anme, 2018):

1. Have clear objectives

From the very beginning, Harmony playing class has clear rules about relevant participants. only pre-schoolers aged 2-5 years old with parents that have access to the internet are involved in the program. Setting specific criteria for participants/subject is important because we have to set the program to reach the goals, empowering people. A colourful lesson plan and materials, along with the joyful song and great teacher communication skills match with the values that the parents needed, it will lead to a sense of unity and the willingness to participate.

2. Enjoy relationships

Sharing enjoyment with the parents and their children is one of the most valuable principles in this program. The children also enjoy sharing their craft results and stories with friends along the session. These all make great ties between one another and creates good empowering environment.

3. Create networks of empathy

The sense of closeness while connecting each other is important to enrich the activities. The trust and sense of belonging often lead to the creation of new ideas or

activities. To develop the networks of empathy, regular session, and the new idea or stimulating theme every week can be combined.

4. Produce a sense of comfort

Balance is the key to generate sense of comfort. Maintaining a balance between stimulation from the teacher and the feedback from the children and parents throughout the whole session is making a great relationship. Also making the balance by listening to the parents for new ideas and the existing ideas is important. For example, the parents ask for a longer duration in a session, while the teacher explained that 30-40 minutes is the maximum screen time for preschool children in a day.

5. Offer flexible forms of participation

Creating a positive and joyful atmosphere will attract people. Not only for parents and the children, the teacher as the core member of the program should also feel the enjoyment. The good environment enables people to take part in a program naturally.

6. Always aim for development

As we live in a dynamic world, the program should adapt to the fast changing environment. We should not stop exploring to keep us feel energized. This program adapting and vary the topic related to the daily lives of the children. For example, in a designated week they have transportation as theme, another week they have health and kids care.

7. Have a perspective of evaluation

The satisfaction of all the program members is essential. It is necessary to have an objective evaluation to know the perspective of others about the program. By evaluation, we may have a new proposed idea or constructive criticism. By adding value in the assessment we can find the motivation and how to get the participants proactively involved.

Acknowledgment

Thank you to Mrs. Luthfiyatul Muniroh and Mrs. Elsa Agustine from Kelas Main Harmoni (Harmony Playing Class) for their support to this chapter and for their contribution to community.

References

1. Anme, T. Empowerment Sciences for Professionals Enhance Inclusion and A World of Possibilities. Nihon Shoni Iji Shuppansha Co.,Ltd., 2018
2. Anme, T. Creating Empowerment in Communities Theory and Practice from an International Perspective. Nova Science Publisher, Inc., 2019
3. Asosiasi Penyelenggara Jasa Internet Indonesia (APJII). Laporan Survei Internet AP JII 2019-2020. link downloadnya, 2020 (Retrieved on December 23rd 2020)
4. Cadiz, M. Communication for empowerment : The practice of participatory communication in development. CLACSO Consejo Latinoamericano de Ciencias Sociales, 2005.
5. United Nations Children's Fund. COVID-19 and Children in Indonesia : An Agenda for Action to Address Socio-Economic Challenges. Jakarta: UNICEF Indonesia, 2020
6. United Nations Children's Fund. Situasi Anak di Indonesia - Tren Peluang dan Tantangan Memenuhi Hak-Hak Anak. Jakarta: UNICEF Indonesia, 2020.

Chapter 11

Community Library for Intergenerational Activities

As mentioned in the first chapter, action research is an activity that continuously carries out a series of processes of working together with the parties to solve the problems raised by the parties, verifying them, and creating a better society together. This chapter will discuss about the action research to build a community-library for intergenerational activities in Indonesia.

Section 1 Action research story

Indonesia was a country with an outstanding community engagement. People used to interacting with each other or just making small talk. It is evidenced by several programs which were run mostly based on community empowerment, like Desa SIAGA "Alert Village", a program to decrease the maternal mortality rate (Suprihatin, 2017). However, this condition has changed a lot due to various factors, and one of them is technology.

We cannot deny that the influence of technology has made some big changes, especially in communication. With the use of increasingly sophisticated technology, humans can easily interact even though they are thousands of kilometers apart. Besides, by using technology or gadget people often ignore those around them. Like, reluctant to communicate with people nearby because they are busy playing gadgets.

People in this era prefer to spend the day by playing gadgets or watching television. They tend to have less interaction with friends and others. Not only children but also adults have an addiction to using gadgets. One of the effects of device addiction is the inability to socialize with family, friends and the community. It is important because the interaction is fundamental in building a relationship between humans, including relationships between family members (Hastuti, Syarief, Megawangi, Guhardja, & Patmonodewo, 2008). Moreover, the previous study found that the reading habits are declining parallel to technology advancement since the users prefer to look for about entertainment and pleasure (Loan, 2009).

The use of technology also impacts people's habits of reading books. The data from United Nations Educational, Scientific, and Cultural Organization (UNESCO) showed that the Indonesian Children's literacy interest was only 0.01%. It means, from 10 000 Indonesian children, only 1 child likes to read books. Compared to other Southeast Asian Countries, Indonesia is in the second lowest position after Cambodia. It's in line with the data from a study by Central Connecticut State University (CCSU), showed Indonesia ranking 60 out of 61 countries in terms of literacy interest (Indonesia Expat, 2020).

This condition really needs to be concerned and provided a solution. People should get choices to diversion from using gadgets, e.g., doing physical activity, reading book in a cozy place, or just a comfort place to have small talks with friends.

Based on these realities, we came up with an idea to develop an open space for community members to do their activities together. In 2019, the neighborhood built a small community building and a mini-park since we received the sub-district donation. After provided the space, we also created several programs for children and adults, like community library and farming.

This program aimed to improve community member's interaction by gathering in the library and open space. Moreover, by developing a community library and open space, we expected to enhance community members' interest in reading a book, socializing, and preserving traditional Indonesian games for children.

Figure 1 shows the design for supporting empowerment for the Community Library, which

includes the following:

(1) The main goal was to improving community member's interaction by gathering in the library and open space (mini park).

(2) The bigger obstacle to achieving the goal was only few community members who were willing to make new changes. However we would never change if we don't start. So, from those few volunteers we started an empowerment program through community library.

(3) The third part describes the background of the current situation: The number of smartphone users in Indonesia was estimated to reach 81.87 million users in 2020 (Statista, 2020). Indonesian community engagement has changed a lot due to technology. People tend to spend more times to playing gadget and talking with others by using mobile and ignoring people around them. This situation also affecting people's interest in reading books since they prefer to play with gadgets instead of reading books (see Figure 1).

(4) These are specific factors that might be influencing the process to achieve the goal: The community library was built inside the neighborhood and belongs to the members, so they can feel safer and don't need more effort to come to the library. An open space, mini-park, also located beside the community library. Hence, it's easy for members to visit and socialize with others. Lastly, we developed new attractive activities, especially for children like storytelling, playing, and others.

(5) The support method explains the method we have been doing to support the community. We came up with the ideas based on community members' needs, and we developed a community library and open space for community members with several fun activities. We created more opportunities for community members through the community library to socialize in an open space inside the neighborhood.

(6) The grounds for these practices included the empowerment theory and action research. The grounds guided us to develop a scientific process. The empowerment theory (Anme & McCall, 2008) describes the process model for empowerment skills through a figure which really helpful for practitioners to establish the empowerment process (See figure 1). In line with the empowerment theory, the action research concept also helps the practitioners to make a well-planned program until the evaluation. Therefore, by utilizing both empowerment theory and action research concept, the current project has been done well.

Section 2 Action research process

As Kurt Lewin defined, action research is one way to challenge to challenge society to change (Anme, 2018). The scope of application of action research has expanded significantly, so it can be widely used in fields such as health, medical care, welfare, education, psychology, administration, management, and community development. Therefore, in the current program we utilized the action research process approach to develop an effective program.

Step 1 Issue Identification and Analysis

This project's action research started by assessing the problem and gathered the baseline data obtained from community leader through secondary data and a depth interview. The baseline data focused on demographic data, public facilities and leaders' will to change the society.

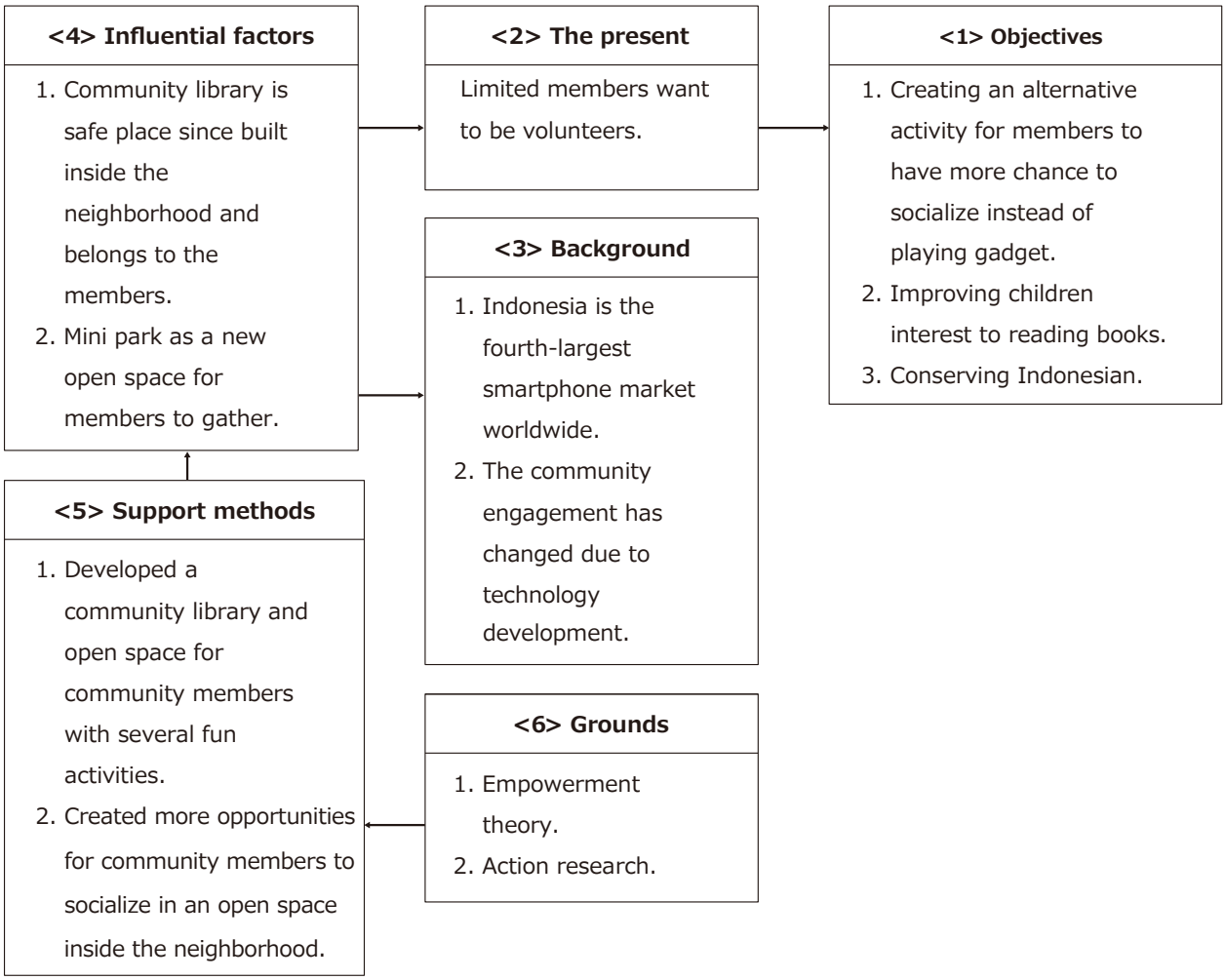
Step 2 Sharing the Aim

From the baseline data, together with leader and representative of community members we developed a solution for the community. As we have discussed in the action research story, the community library and a mini park were built to facilitate people to gather and spend time by doing other activities instead of playing with gadgets.

Step 3 Support Method Planning

Community library is a program with name Senja Community Library. In Bahasa, "Senja" means afternoon or twilight, because this library is only open in the afternoon from 4 to 6 PM daily. We provide a variety of books obtained from community members' donations. The books are suitable for various ages, from children to adults. In this program we also organized other activities

Figure 1 Design for supporting empowerment



that differently every day, such as storytelling for children on Monday and Friday, introducing traditional Indonesian games on Tuesday and Thursday, and making handicraft on Wednesday.

Beside the community library, we have a mini park for children and adults. In the mini park, children can play in the playground, and the caregivers (adult) can look after them while talking with others.

Step 4 Implementation of Senja Community Library

Since August 2019, we have been implementing the program for Senja Community Library. It succeeded in becoming a gathering place for community members, especially children to play and socialize with others.

This program has been evaluated regularly through observation and community members' opinion. By providing this program, there were positive impacts. Every afternoon, many children and adults came to the community library to participate in storytelling or to play in the park and chat with other people.

Action research is a continuous process, it does not end with "task setting" → "practice" → "evaluation", but further development by repeating "evaluation" → "new task setting based on evaluation" → "practice" → "evaluation" → "new task setting based on evaluation" → and so on (Anme, 2018). Therefore, we didn't stop at this point. After the first evaluation, we developed a new goal: improving community members' engagement to Senja Community Library.

In the second evaluation, more community members participated in Senja Community Library's activities and donated books. Until now, there have been gathering activities for adults through discussion activities in the community library. They gather regularly every month for social gathering, and cooperation to clean up the surrounding environment.

Picture 1 Children are listening to the storytelling by a volunteer

Picture 2 Discussion activity for adults

Section 3 Action research outcomes

The following will describe some of the achievements of the empowerment process that have been carried out:

1. The Senja Community Library became a place to gather community members for all

Prior to the Senja Community Library, community members had limited gathering places. In addition, the limit of a choice of activities makes children and adults also tend to spend time playing gadgets.

Since the Senja Community library was built, people have other options for spending time. It is also an opportunity for people to gather and have more opportunities to socialize with others (Figure 2).

The leader of the community stated: "*Senja Community Library is very useful for residents, because it can be a public facility for gathering and playing. Especially for children who need other activities after school*". By a positive support from the leader, we hope to get more support from all community members as well.

2. Children loves to spend more times to read books and listen to a storytelling

As explained in the action process, one of the programs of community library is storytelling. Through this program, we aimed to encourage children to have more interest in reading and books. Not only that, but also we want to instill that reading is fun and fruitful activity.

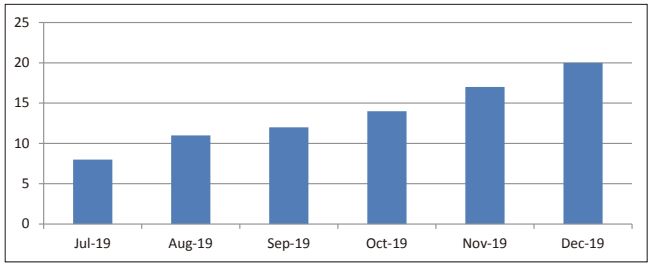
Senja Community Library provides various books for all ages, especially since more community members donated books. Children become interested in coming to read books or listen to storytelling. They are also happy to retell to other friends who haven't heard the story.

it is evidenced by the visitor numbers of Senja Community Library has increased month by month. One of the children stated, "*Since we have community library, I have a place to play and gather with friends. In addition, many fun activities are carried out, such as listening to stories and playing traditional games.* "

In line with the opinion from the parent who felt a positive impact from the community library, "*we are*

Picture 3 Children are picking up the interesting book

Figure 2 The average of visitors per day



delighted and feel more relieved since the children spent time in the library. They no longer spend a lot of time on gadgets, and they can socialize a lot with friends. Hopefully in the future there will be more activities for adults and the elderly too."

3. Children's knowledge about Indonesian traditional games is improving and even they could try to play with the games

Only few children know about Indonesian traditional games like Congklak, Bekel, Monopoli and others. On Tuesday and Thursday, we have a program to introducing Indonesian traditional games to children. The children looked very enjoy and love to play congklak and monopoli. They even often invited other children from different neighborhoods to come and play together.

Indonesian traditional games have more opportunities for children to interact each other. Since it should be played with more than one child, there are so many activities to be completed by cooperating or competing between the children during the game. Indonesian traditional games need to be conserved, and it's one of the fun ways to keep them.

Picture 4 Children are playing Indonesian traditional game: Congklak

Picture 5 Children cooperated to solve the game

One of the children gave her opinion about the benefit from the program, *"I really enjoy spending time in the community library since I get to know Indonesian traditional games. Before, I have never tried to play congklak, but after this program I was able to try playing. It turns out very fun!"*

Those are outcomes that we have achieved. However, we still have so many problems to deal with, especially to encourage more community members to engage with the program.

Shortly, we are planning to make an event and inviting all members, especially adults and elderly. Through this event, we will offer the participation form to the members, so they can choose their own engagement form. Some of them can donate books or toys, and other can be volunteers for activities. Once we recruit more volunteers, we will create other empowerment movements, such as empowering elderly to do story telling or making handicrafts with children. This plan is expected to create a good relationship between children and the elderly and improve their self-esteem.

Section 4 Empowerment tips in action research

In this section, we will discuss about the important steps to do empowerment in action research. Below are tips for doing empowerment research described by Anme (2018):

1. Have Clear Objectives

It is imperative to have a clear objective to organize the steps and interventions are needed. To create a clear objective, we have to conduct problem assessments and prioritize the problems that need to be resolved.

2. Enjoy Relationships

As someone who helps a community to empower themselves, it is also very important for us to enjoy existing relationships. Because the sense of comfort we feel, can affect the success of an empowerment program.

Picture 6 Children enjoyed the activity with volunteers

Moreover, this feeling of happiness will also be felt by the community so that they become more eager to adapt to better changes.

3. Create Networks of Empathy

Empathy is also an important key in the success of community empowerment. The sense of empathy that we show will be felt by the community to create a good bond. This good bond will help in the success of an empowerment program.

4. Produce a Sense of Comfort

Providing a sense of comfort for yourself and others is important in the empowerment process. It aims to make the process fun. Although the objective of empowerment is very challenging, the process can be lived and enjoyed without coercion.

5. Offer Flexible Forms of Participation

Empowerment is a process of development that requires an important role from the community as participants. However, since society consists of many different individuals, it is important to offer flexible participation forms. So, all people want to continue to participate in the empowerment process because they feel that they have an important meaning for society.

6. Always Aim for Development

As action rresearch is defined as a way to challenge a society to change, the necessary aim of this process is to develop to be better The next tip always has an orientation to develop a society by empowering the people. By doing the empowerment, we help the people to develop themselves for a better society.

7. Have a Perspective of Evaluation

Evaluation is an important step in action research. From this process we know how far we have gone and how far we have achieved. Having a perspective of evaluation, helps us to be able to move according to the goals.

The next empowerment tips are originally from me especially when the readers would like to develop an empowerment program for their own place.

8. Start from your nearest place

Sometimes many people want to carry out empowerment programs for remote and underdeveloped places. It is an excellent idea. However, often we ignore the problems that are really around us. So, try to assess the problems that exist in the nearest place and create empowerment for your own environment.

9. Start from the simplest thing you can do

The next tips are related to the previous tips. After assessing the problems, continue to prioritize the problems. Once you pin the main problem, do the action research on the easiest thing and solve the problem. This aims to use time and energy more efficiently.

Empowerment is a process of change that is evidence based and carried out continuously, so it allows steps to be done scientifically. By utilizing the theories, practitioners can perform empowerment appropriately and according to the community's needs. Therefore, for all the practitioners, never hesitate to start empowerment, and together, we can create a better world to live in.

References

1. Anme, T. Empowerment Sciences for Professionals Enhance Inclusion and A World of Possibilities. Nihon Shoni Iji Shuppansha Co.,Ltd., 2018
2. Anme, T., & McCall, M. Culture, Care, And Community Empowerment: International Applications of Theory and Methods, Kawashima Press, 2008
3. Hastuti, D., Syarief, H., Megawangi, R., Guhardja, S., & Patmonodewo, S. Karakteristik Keluarga, Interaksi Ibu-Anak dan Pengasuhan serta Pengaruhnya pada Tumbuh Kembang Anak di Bogor dan Depok. Media Gizi & Keluarga, 2008
4. Indonesia Expat. Indonesian Government Admits to Low Literacy in Many Village. https://indonesiaexpat.biz/featured/indonesian-government-admits-to-low-literacy-in-many-villages/, 2020 (Retrieved on December 23rd 2020)
5. Loan, F. A. Impact of New Technology on Reading Habits : A Glimpse on the World Literature. In Role of School Libraries in Quality Education (pp. 212–218), 2009
6. Statista. Smartphone Users in Indonesia. https://www.statista.com/statistics/266729/smartphone-users-in-indonesia/, 2020 (Retrieved on December 18th 2020)
7. Suprihatin, E. Experience of High-Risk Pregnant Women Under The Implementation of " Desa Siaga (Alert Village) " Program, 3 (Inc), 104–107, 2017

Chapter 12

Supporting Program for Kindergarten-Primary School Transition

Section 1

Story of action research

Subsection 1

Process to the action research

As mentioned in the previous chapters, action research is widely used in community health management, construction of community reading environment and Comprehensive Child Care Support Systems. In this chapter, we will discuss the application of action research on early childhood education in China.

1. Current situation of connecting education in Chinese kindergartens

When children attend primary school, in the face of a large amount of cultural knowledge, they need to have the ability to flexibly adjust to the changes and pursue better development and progress. Generally, it is possible for children to smoothly transition from kindergarten to primary school, but this involves the problem of the integrating the education of young children with that of pupils. At this stage, children should transition from games to learning knowledge and skills (Zhiwei Ma, 2019). Cheng (2014) once mentioned that due to the lack of social opportunities, the expansion of adult desires, the lack of emotional support for the norms, and other sociological and psychological reasons, such as cruel social reality, deprived both teachers and parents of subjective consciousness. This phenomenon is reflected in the fact that kindergartens have become primary schools in certain aspects. However, since the country attaches great importance to early childhood development, the "de-primary schooling" of kindergartens has become a mainstream phenomenon. In 2018, the Ministry of Education issued the "Notice on Carrying out the Special Governance of "Primary Schooling" in Kindergartens". De-primary schooling has become a key task of preschool education reform. However, due to the limited ability of kindergartens to interpret policies, there has been a certain degree of deviation in implementation. Some kindergartens have implemented a one-size-fits-all approach, over-emphasizing games and ignoring the learning of basic knowledge (Zhenbiao Qin & Limin Hou, 2005). For example, in some kindergartens, children's access to Chinese characters, mathematics, pinyin, etc., may be restricted, and they may not be able to develop basic learning habits and master necessary learning skills. On the other hand, from the perspective of parents, many parents narrowly interpret learning as acquiring knowledge and skills, such as simply focusing on children's literacy, poetry recitation, number calculation, etc., and even using these as indicators to evaluate the quality of kindergarten education (E Ma & Yaling Ma, 2018). This kind of evaluation not only interferes with normal teaching in kindergartens, but also affects the coordinated development of children's body and mind (Dongyun Li, 2020). In fact, compared to the knowledge and skills which young children acquire in the early stage of making connections, their executive function has a greater impact on their learning and life, and can also help explain and predict the growth of young children in cognitive learning and behavioral development (Wangyin Liu, 2019).

2. The importance of executive function in young children

In the growth and development of children, the role of executive function has been increasingly valued by many scholars at home and abroad. Generally speaking, executive function refers to the advanced cognitive process that coordinates and controls various basic cognitive processes when children undertake complex cognitive tasks (Jing wang & Shufen Xing, 2016). Executive function is mainly comprised of three components: working memory, inhibitory control, and

cognitive flexibility (Zhonghua He, 2017). Working memory refers to an individual ability to retain, process, and update information, and to infer conclusions from existing opinions, and it gives one the ability to derive new connections and understand verbal information and causal relationships (Duckworth, 2005). Inhibitory control refers to the ability of individuals to restrain dominant reflections, overcome internal impulses and irrelevant external stimuli, and maintain focus, while cognitive flexibility refers to the ability to switch between different tasks and mental sets (Miyake, 2000).

Current research on executive function has found that its impact on children is manifold. For example, foreign studies have pointed out that children's executive functions are significantly related to their physical and economic conditions in adulthood, and even to their future career success (Moffitt, 2011; Bailley, 2010); or they may be significantly positively correlated with children's academic achievement, and could help predict children's future academic achievements (Mcclelland, 2011; Jacobr, 2015); not only that, executive function is also closely related to children's speech, and psychological and social skills (Lee, 2013). In view of the important role of executive function in children, scholars at home and abroad have suggested that attention should be paid to the nurturing of executive function in early childhood development. For example, some studies have found that during the period of 2 to 5 years of age, the executive function of children undergoes obvious key changes (Hong Li, 2004), and proposed that the first 3 years of life is an important period for the development of children's executive function. Although some scholars also believe that 5-12 years of age can also be regarded as a key stage of the development of children's executive function (Willcutte, 2005), from the perspective of early intervention, they still tend to suggest that 3-6 years old preschool children should be taken as the focus of the critical period of children's executive ability.

3. Intervention Methods of Executive Function of Preschool Children

In terms of research on interventions in children's executive function: many domestic and foreign scholars have undertaken a lot of researches on how to improve children's executive function. For example, some studies have integrated and analyzed multiple papers on improving and enhancing children's executive function and proposed that children's executive function can be improved through training and intervention, and that aerobic exercise is an effective means to improve and enhance children's executive function (Chao Xie, 2016). At the same time, there are also comprehensive studies that have found that in addition to exercise, children's executive function can also be improved through calculation functions, school courses (such as Montessori courses and mental tools courses based on Vygotsky theory, etc.), music and game training (Adele, 2012; Timothy, 2016). In terms of family and parenting, the parenting style also has a certain impact on the executive function of the child, such as the problem of negatively predicting executive function of authoritative parenting (Qingbin Xie, 2019).

Looking back at the existing research, it is found that for the improvement of children's executive function, there is currently no clear, theoretically and practically-based intervention method in China. Therefore, this research intends to cut from the perspective of games and active interaction to improve children's executive functions.

4. Action Research design

(1) Objectives

For young children, through executive function intervention, they can have good learning habits and increase their interest in studying. For parents, this offers them a good way of interaction, through which children's executive function can be improved.

(2) The present

For young children, there is increasing pressure to join primary school. If they do not study in advance, they are prone to fall behind in their academic performance once they join primary school. As for parents, they are more and more inclined to let their children participate in special preschool connection tutorial classes to learn

primary school knowledge and skills in advance, to ensure the children can cope with primary school life as soon as possible.

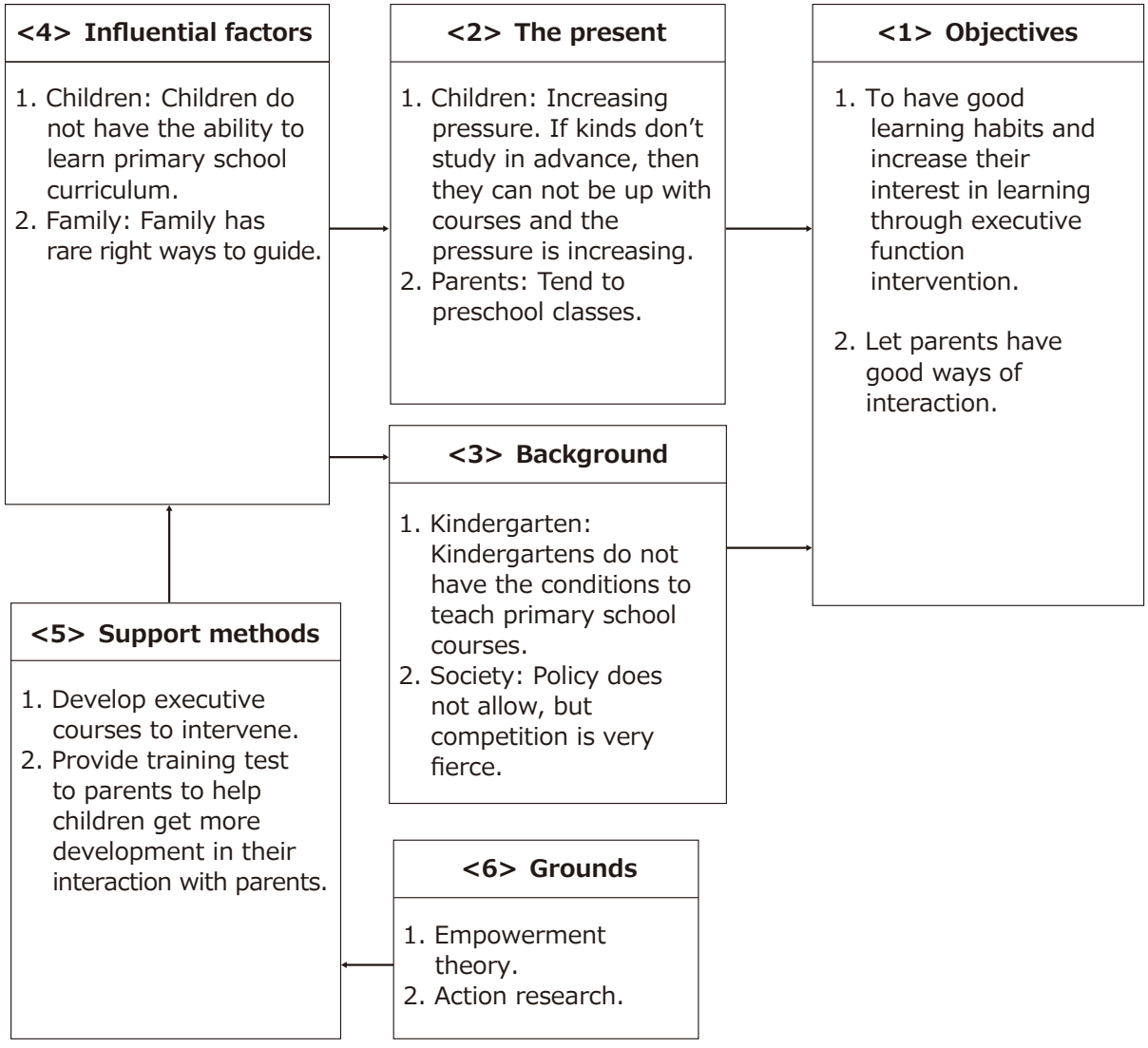
(3)(4) Background and influential factors

Generally speaking, at the stage of early childhood transition, children have not yet developed the ability to fully adapt to the primary school curriculum. At the same time, it is also difficult for the caregivers to correctly guide the children in family life settings on how to transition from kindergarten to primary school. In addition, the policy does not allow kindergartens to adjust their curriculum to cover that of primary school, and kindergartens do not have the conditions necessary to teach primary school courses, but the reality is that children will inevitably face fierce competition in primary school education after passing the transition stage

(5) Strength of support methods

First of all, according to the research literature and selection of games suitable for children, games can help to exercise children's memory ability, cognitive conversion ability, and ability to control their will. On the one hand, they can improve young children's executive abilities and enable them to perform well in the primary school stage. The improvement of function exercise, on the one hand, also helps to cultivate their interest in learning knowledge and skills. Secondly, this study also puts forward family parenting methods that can help improve the quality of parent-child interaction between children and their caregivers, empowering parents to enhance children's exercise ability and improve their executive functions, and to protect children's physical and mental health, further improving family relationships.

Figure 1 Design for supporting empowerment



(6) Grounds

In this action research, we introduced a collaborative step design based on empowerment theory (Empowerment, Anme & McCall, 2008), and designed appropriate enhancement support programs according to the characteristics of preschool children and the environment during the entire intervention process (Figure 1).

Section 2 Action research process

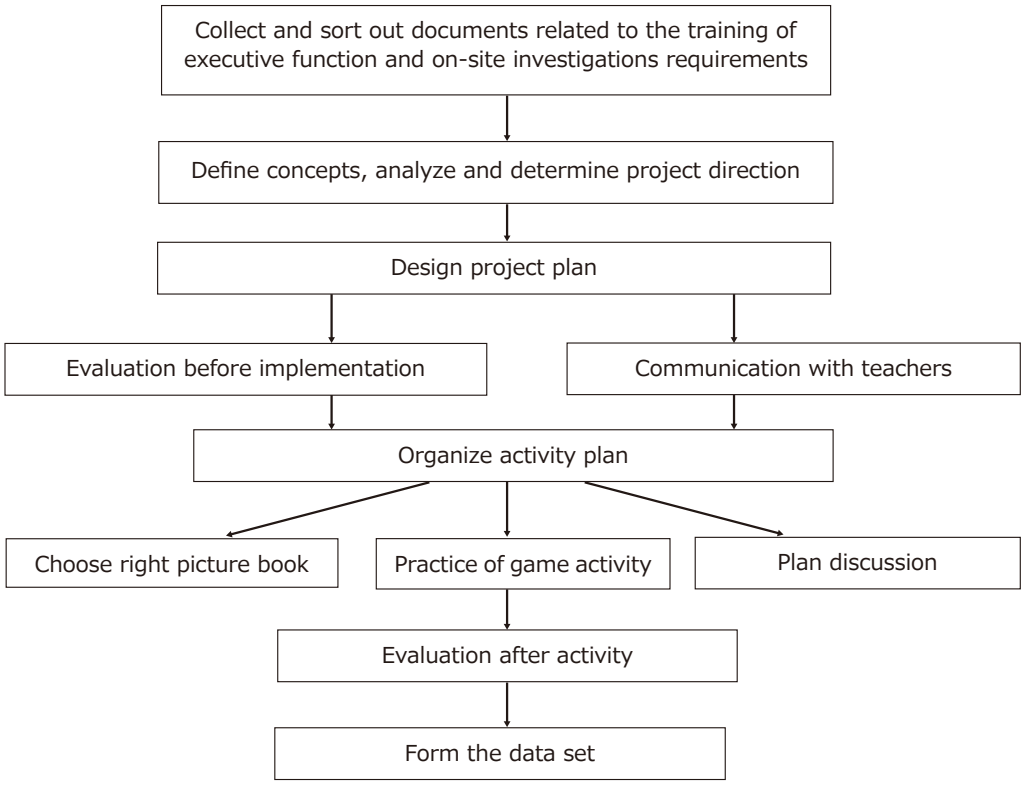
Step1: Public welfare lectures on the importance of cultivating interest in learning for young children

The research was carried out in kindergartens. First, the researchers conducted interviews with the kindergarten principal and the head teacher of the preschool transitional class to understand the family situation, class performance, and health status of children in the preschool transitional class, as well as the management problems and teaching difficulties faced by the head teacher and teachers at this stage, and parenting problems reflected by parents and children.

Picture 1 Lecture scene

Secondly, based on the results of the interviews, a special lecture on the theme "Evidence-based parenting and executive function training for children's integration between kindergarten and primary learning" was held for parents of young children. The lectures conveyed to the parents the concept of scientific parenting and drew their attention to the importance and basic methods of developing children's executive function. Finally, various questions and needs of parents on evidence-based scientific nurturing and exercising of children's executive

Figure 2 Project development process



function were collected at the lecture site, and this would be used as a reference material for subsequent design of special executive function improvement projects.

Step2: Developing support program for child

First of all, on the basis of the previous step, according to the actual problems and needs reflected by kindergarten professionals and parents, as well as the concept of executive function, this research will exercise and improve children's executive functions, including their memory ability, cognitive conversion ability, and the ability to control their will. These three abilities are considered to be the development direction of the project, with children as the main body, following the age characteristics of children, and designing corresponding project game plans. Secondly, before implementing the game plan of the project, on the one hand, it is necessary to pre-evaluate children's memory ability, cognitive conversion ability, and ability to control their will. On the other hand, it important to discuss with the teachers of the children's class the relevant details of the game plan in the project. Repeated polishing is carried out to ensure that the game plan is more fully adapted to young children in the early transition stage. Afterward, it is necessary to implement the plan, organize children to participate in thematic activities of the project, and learn happily in the games designed for such activities. Finally, after a certain period of time after the end of the activities, the children's executive functions, namely memory ability, cognitive conversion ability, and ability to control are reevaluated and a corresponding data set is formed.

Step3: Practice of the program

The implementation time of this program took three months. The teacher-student interactive game activities organized by teachers are implemented once a week in the kindergartens. The implementation of the one-hour activities is characterized by children's empowerment. In addition, two parent-child interactive games guided by parents in the family are set to take place twice a week. Additionally, parents are assigned the game theme and corresponding professional guidance and continuous

Picture 2 Activity Implementation Scenario

encouragement are given in the process. The games are designed to nurture the scientific empowerment of the parents.

Step4: Effect Test

Before the implementation of this study, interviews were held to collect data of the research subjects of this study, that is, children, parents or main caregivers of these children, including information related to basic personal details, parent-child interaction, and children's executive function. In terms of executive function, this study adopts five executive function test tasks, including language memory spatial breadth, visual memory, semantic fluency, and digital breadth, including retelling, points, trajectory memory, figure naming, figure recognition, and direct measurement, direct and indirect measurement, pattern replication and other early childhood mathematical cognitive test tasks, as well as vocabulary knowledge test, words fluency test and vocabulary memory test tasks. In addition, during the implementation of the intervention, the parent-child interaction and children's executive function data were regularly tracked to ensure the traceability and continuity of the data, and the changes in the intervention process were analyzed to test the effect of the executive function improvement project.

Section 3 Action research outcomes

For children, through the pre- and post-examination of executive function, it was found that the results of verbal memory, space breadth, visual memory and digital breadth were related to memory ability, as well as semantic

Figure 3 Changes of children's memory and cognitive conversion ability before and after activity intervention

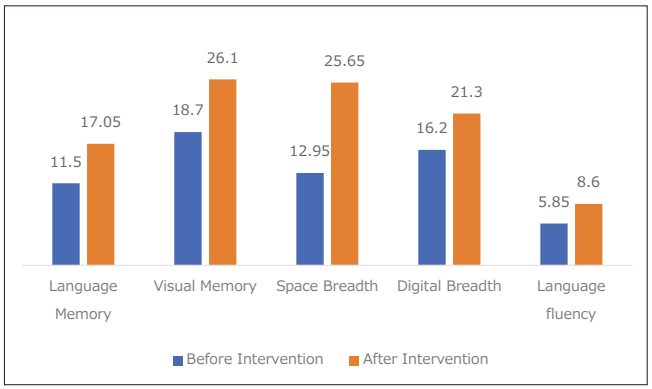
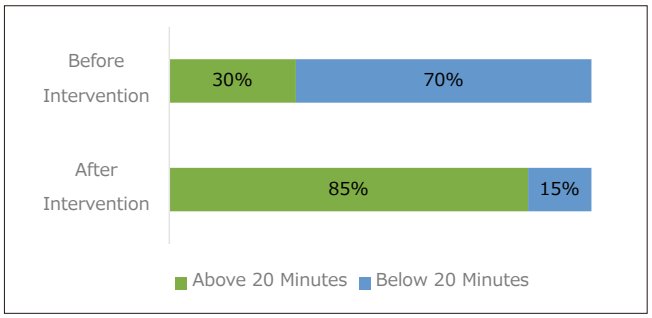


Figure 4 Changes in Children's Will Control Ability Before and After Activity Intervention



fluency related to cognitive transformation ability and that their performance has improved significantly. In addition, the teachers observed the duration of children's continued reading of picture books in class and found that the proportion of children who read for more than 20 minutes has increased from 30% to 85%, indicating that children's will controlling ability was significantly improved after the activity.

In addition, through interviews with parents after the event, it was found that parents can fully understand the concept of scientific evidence-based parenting, can effectively increase the parent-child interaction behaviors, and significantly improve the quality of parent-child interaction and self-confidence in parenting children.

Section 4 Tips for empowerment in action research

1. Empower young children and mobilize their interest

The core of the project is child-oriented, adapts to children's developmental stage of cohesiveness, conforms to their physical and mental characteristics, allows children to give full play to their subjective initiative starting from mobilization of children's interests, and taking advantage of the teachers' impromptu response in activities to better respond to children's on-site feedback and further promote their empowerment.

2. Empower the family environment and enhance the enthusiasm of parents

Family education is the most important part of early childhood education, which requires parents' participation and cooperation in the implementation process. The project organizes a dedicated online communication and sharing group for parents, encourages parents to share and interact in the group, and organizes offline parent every month so that families can receive timely feedback, help and encouragement, and be empowered to actively participate.

3. Empower kindergartens and communities to promote more participation

During the process, the project helped kindergarten teachers to pay more attention to the concept of scientific nurturing, and improved the quality of kindergarten education. It is hoped that in the follow-up, it can be further popularized in surrounding communities and empower more children and families in the stage of making connection in early childhood connection.

References

1. Ma Zhiwei. Investigation and Research on the Status Quo of Parents Participating in Early Childhood Connecting Education Between Kindergarten and Primary Schooling-Taking Three Kindergartens in Jinan as Examples. Shandong: Shandong Normal University, 2019. (Chinese)
2. Xiulan Cheng. Analyzing the Phenomena of Turning Early Childhood Education into Primary School in the Multi-disciplinary View. Educational Research, 2014. (Chinese)
3. Ministry of Education: "Notice on Carrying out the Special Governance of “Primary Schooling” in Kindergartens". Education, 2018, 8-8. (Chinese)
4. Zhenbiao Qin, Limin Hou. Reflection on a Survey about How Kindergarten Curriculum Joins Elementary Education-A Comparative Research on Kindergarten and Elementary-school Teachers' Views of Curriculum in Guangxi Province. Students In Preschool Education, 2005, (5):17-19. DOI:10.3969/j. issn.1007-8169. 2005. 05. 005. (Chinese)
5. Ma E, Ma Yaling. Research on the Infant Connecting Education Between Kindergarten and Primary Schooling Based on Children's Current Happiness. Journal of Inner Mongolia Normal University (Education Science Edition). 2018,000 (032): P.8-8. (Chinese)
6. Li Dongyun. Innovation of kindergarten education under the background of de-primary schooling. Chinese and Foreign Communication, 2020, 27(2):196-197. (Chinese)
7. Wanying Liu. Research on the promotion of executive function of 4-5-year-old children, Sichuan Normal University, 2019. (Chinese)
8. Jing Wang, Shufen Xing. Interventions That Improve Children’s Executive Functions at Home and Abroad. Advances in Psychology, 2016, 6 (07): 798-807. doi:10.12677/AP.2016.67104. (Chinese)
9. He Zhonghua. Analyze the New Progress of the Research on the Related Factors of Children's Executive Functions. China After School Education, 2017, (8): 61-62. doi: 10.3969/j. issn.1004-8502. 2017. 08. 047. (Chinese)
10. Dckworth A L, Seligman M E P. Self-discipline outdoes IQ in predicting academic performance of adolescents. Psychological Science, 2005, (12): 939-944.
11. Miyake A, Friedman N P, Emerson M J, et al. The unity and diversity of executive functions and their contributions to complex “Frontal Lobe” tasks: a latent variable analysis. Cog Psychol, 2000, 41(1): 49-100.
12. Moffitt T E, Arseneault L, Belsky D, et al. A gradient of childhood self-control predicts health, wealth, and public safety. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108 (7): 2693-2698.
13. Bailey, C. E. Cognitive Accuracy and Intelligent Executive Function in the Brain and in Business. Annals of the New York Academy of Sciences, 2010, 1118 (1): 122-141.
14. Mcclelland, M. M., Cameron, C. E.. Self-regulation and academic achievement in elementary school children. New Directions for Child & Adolescent Development, 2011(133): 29-44.
15. Jacob R, Parkinson J. The potential for school-based interventions that target executive function to improve academic achievement: A Review of Educational Research, 2015, 85(4): 512-552.
16. Lee, K., Bull, R., & Ringo, M. H. H. Developmental Changes in Executive Functioning. Child Development, 2013, 84, 1933-1953.
17. Hong Li, Naiyi Wang. On the Developmental Researches of Executive Function. Psychological Science, 2004, 27(2), 426-430.
18. Willcutt E G, Doyle A E, Nigg J T, et al. Validity of the executive function theory of attention- deficit/hyperactivity disorder: a meta-analytic review. Biological Psychiatry, 2005, 57 (11): 1336-1346.
19. Chao Xie,Chengji Jin Ziyun Zhang. Effects of short-time moderate intensity aerobic exercise on executive function of school aged children in China. Chinese Journal of Health Education, 2016, 32 (11): 997-1001. (Chinese)
20. Adele Diamond Activities and Programs That Improve Children’s Executive Functions. Curr Dir Psychol Sci. 2012, 21(5), 335–341, doi: 10.1177/0963721412453722.
21. Timothy Rice. Commentary: How Child’s Play Impacts Executive Function-Related Behaviors. General Commentary published, 2016, doi: 10.3389/fpsyg. 2016. 00968.
22. Qingbin Xie, Fang Hu, Wei Wei, Yan Li. Effect of Maternal Parenting Style on Social Adjustment in 4 Years Old Children: the Mediating Role of Executive Function. Chinese Journal of Clinical Psychology, 2019, 27 (3): 599-603. doi:10.16128/j.cnki.1005-3611.2019.03.035. (Chinese)
23. Tokie Anme, Mary McCall. Culture, Care, and Community Empowerment: International Applications of Theory and Methods. 2008, Kawashima Press.

Chapter 13

Dementia Prevention with Community Volunteers

Section 1

Story of action research

Subsection 1

Process to the action research

1. Society surrounding people with dementia

The aging rate in Japan has been constantly increasing. In 2018, it was about 28.1%, which meant one in 3.5 Japanese people was over 65 years. Moreover, one in three Japanese people in 2036, and one in 2.6 Japanese people in 2065 will be over 65 years (National Social Security, Population Research Institute, 2017). The number of people with dementia has also increased and will be about seven million in 2025. (Cabinet Office, 2018).

The household structure in Japan changed; three generation households decreased, and elderly couples and elderly single households increased (Ministry of Health, Labor, and Welfare, 2018). In some home care settings, elderly person was providing care to elderly person and dementia person was caring for dementia patient in Japan. Therefore, family care givers burden has been increased.

Public long-term care insurance was established in Japan in 2000, which works well and helps caregivers. However, it has a coverage limit regarding support for caregivers. Therefore, it is very important to create a support network in their community, not only the formal support but also for the informal support involving volunteers and neighbors.

2. Dementia

Perception of people with dementia has changed in the last 15 years. The Japanese terms "BOKE" and "CHIHOU" were used for dementia for a long time. However, these words expressed contempt and did not show any respect for people with dementia. Consequently, the Ministry of Health, Labor and Welfare changed the name to "dementia" (Ministry of Health, Labor, and Welfare, 2004) . Many had strong negative perceptions of people with dementia and thought that such individuals cannot understand or do things independently. Since 2004, these negative images have gradually improved, and people currently understand that dementia is a disease and that people who suffer from it should be treated with dignity. Since 2000, it was reported that people with dementia have rich emotions, and their feelings are affected by the care approach (Mizuno, 2011). A report on elderly care research (Ministry of Health, Labor, and Welfare, 2015) stated that the bedrock of dementia care is to protect their dignity and respect their life and individuality. Along with medical treatment, such as medication or training, the care approach will also consider their livelihood. The new approach for dementia care is a "treatment" to "live together."

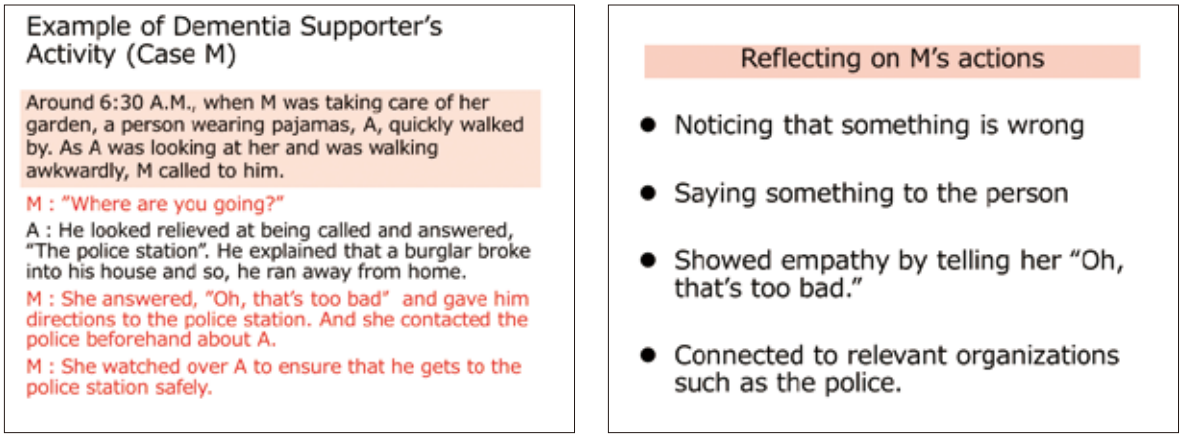
3. Everyday difficulties faced by people with dementia

The most difficult daily activities for people with dementia include shopping and money management. Sometimes they get lost during shopping or buy huge amounts of unnecessary products. However, people with dementia have a shopping etiquette and can express what they want to buy. They enjoy shopping if the salespersons or other customers help and greet them warmly. Additionally, some people with dementia need help with taking the trash out, cooking, or doing the dishes. That little help by dementia supporters would be beneficial for the people with dementia when they stay in the community they are accustomed to.

4. Support systems for people with dementia

In 2005, the Ministry of Health, Labor and Welfare began 10 years long campaign called 'knowing dementia and building the community '. As part of it, they started training dementia supporters and expected them to

Figure 1 Example of dementia supporter's activities



support people with dementia in the community. The campaign spread nationally in Japan, and the number of dementia supporters reached over one million in 2009 and 10 million by the end of 2018.

In 2013, the Ministry of Health, Labor and Welfare started a five-year Japanese dementia strategy called the Orange Plan for supporting people with dementia. Two years later, they revised the Japanese dementia strategy called the New Orange Plan.

5. Dementia supporters

People who completed the training sessions that prefectures, municipalities, or occupational organizations regularly held (a few times per year) were recognized as dementia supporters. They are expected to have correct knowledge about dementia and help people with dementia in the community. Moreover, dementia supporters are expected to watch over and listen to people with dementia living in their community (Figure 1). The basic concept is that little support from dementia supporters would help people with dementia to live in their homes after the diagnosis of dementia (The Japanese Society for Dementia Care, 2016).

6. Dementia supporters' challenges

Since the New Orange Plan started, expectations for dementia supporters increased. Before the plan, the purpose of the training sessions was mainly to increase knowledge about dementia and change the negative perceptions of people with dementia. However, after the plan's implementation, dementia supporters were expected to be involved in activities to support people with dementia. Although the expectations for the dementia supporters changed, it was reported that activity involvement rate by dementia supporters was still low (Arakawa et al., 2016) .

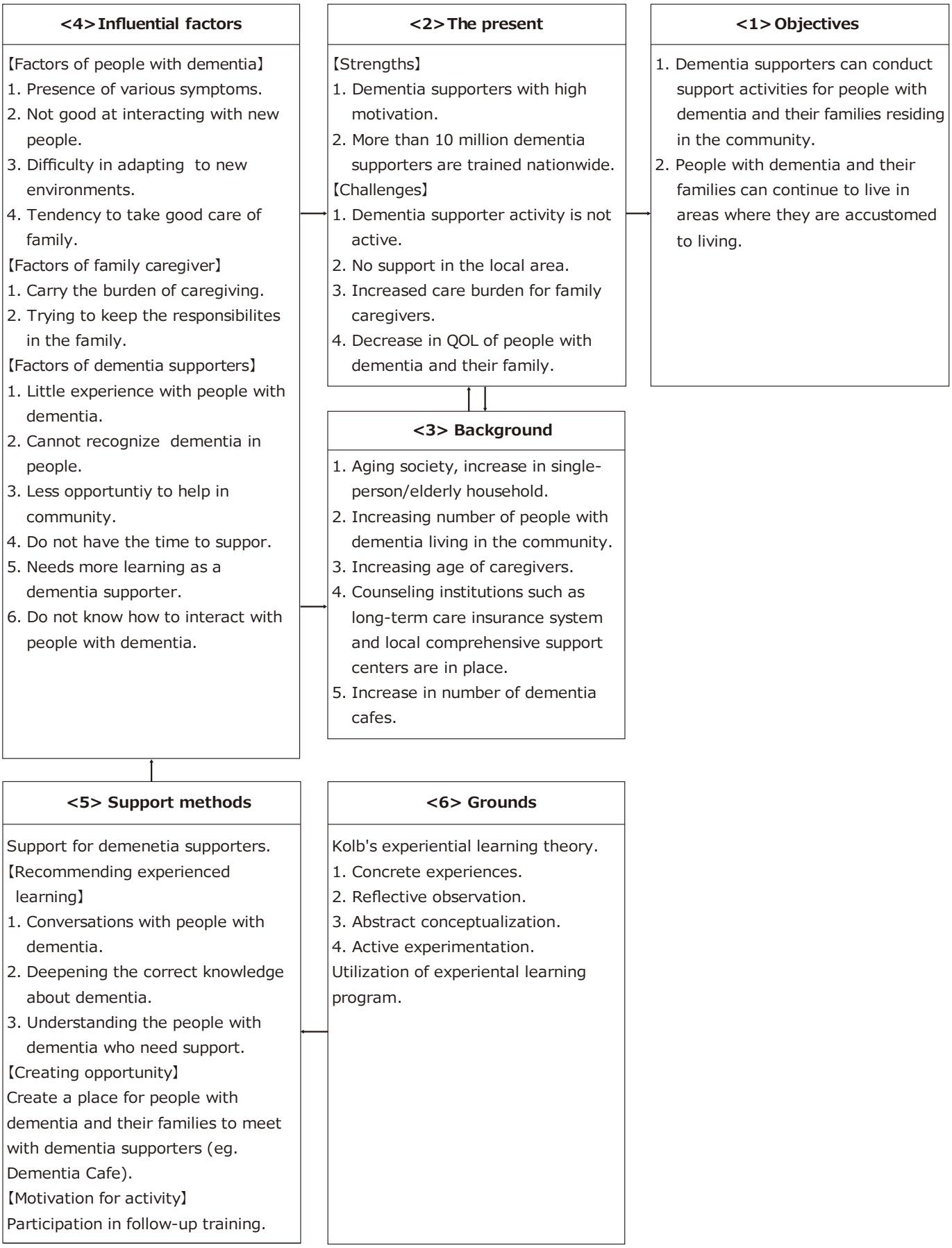
Dementia supporter's challenges would be activating their activity involvement in the community and consider the way of training sessions. According to the study (Arakawa et al., 2016), reason for dementia supporter's low activity involvement was mentioned as followed: no encounter with people with dementia, no chance for active involvement, not enough time, and more training needed. It was considered that the dementia supporters tend to think they have not come across people with dementia or cannot recognize a person with dementia due to their lack of experience (Figure 2).

Subsection 2 Purpose of the program

People with or without dementia live together in our society. We are hoping our society will be comfortable for anyone. To build a comfortable society for people with dementia, dementia supporters should be more activated in the community using their knowledge on dementia.

An experiential learning program is one wherein dementia supporters have one-to-one communication experiences with people with dementia at a day service center. The purpose of the communication is to understand the actual condition of people with dementia, and gain knowledge to start their supporting activities in the community. This program is expected to empower dementia supporters who support people with dementia and their families. This project plans to achieve Sustainable Development Goals, particularly focusing on

Figure 2 Design for supporting empowerment



the one regarding good health and well-being.

Subsection 3 Significance of the program

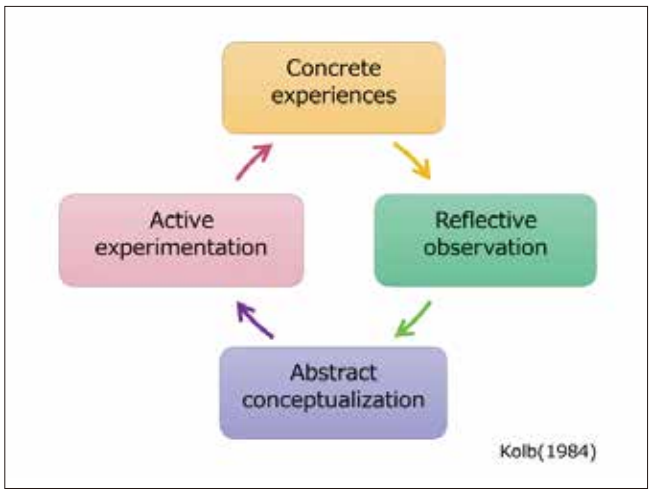
Dementia supporters' activity is a gratuitous, creative, and informal service that is based on dementia supporters' voluntary mind. Although there is no treatment for dementia, it is confirmed that early treatment is effective in preventing its progression. However, various symptoms that appear are often tardily discovered. Also, people who notice subjective symptoms do not go to the hospital because they fear being diagnosed with dementia. If a person suffering from dementia had a reliable person such as a dementia supporter in the community, they would feel reassured. A dementia supporter should be a good listener and should be able to give good advice to people with dementia and their families.

Section 2 Process of the action research

Subsection 1 Theoretical framework for the action research

Kolb's theory was used as a basis for this action research program as it has high versatility through experiences, and it is applicable not only for researchers but also practitioners and students. Kolb's theory is composed of four stages: concrete experiences, reflective observations, abstract conceptualization, and active experimentation (Figure 3). According to Kolb, learning is a process of accumulating knowledge through experiences. He stated that knowledge is not to be acquired or delivered but continuously created. As these four stages in Kolb's model circulate and create knowledge, learning occurs (Hoyrup, 2004) .

Figure 3 Kolb's experiential model



Subsection 2 Example of an activity based on Kolb's theory

This is reported from a college student who visited an elementary school as part of an educational practicum (Mochizuki, 2015) . This research reveals the student's learning process based on the description of actual situations involving children and teachers at the school. An example was written using Kolb's theory: Child A monopolized a swing and never took turns with classmates in the schoolyard and so, the student teacher scolded child A. Then, child A got angry and ran away from the student teacher (concrete experience). After that episode, the teacher thought that she had blamed child A more than necessary (reflective observation) and thought she needed supportive intervention considering child A's feelings (abstract conceptualization). This abstract conceptualization led to her having a new experience with child A a few days later. The teacher thought that if she paid attention to his feelings before considering his previous behavior then she could teach him effectively. Through this experience, she increased her motivation in teaching (active experimentation).

Subsection 3 Overview of the action research

The experiential program was held at a day service center. The program schedule was shown as "Experiential learning program orientation for the participant" (Table 1). Dementia supporters gathered at 9:00 AM at the day service center, and the experience lasted for about three and a half hours. Each dementia supporter talked to a person with dementia. There were no prompts regarding conversational topics. The supporters were allowed only to converse with the individuals with dementia. To prevent untoward incidents, they did not provide physical care.

Table 1 Experiential learning program orientation for the participant

Thank you very much for participating in the experiential learning program today.
I would like to give an overview of the program and today's schedule.

[Program overview]

Today, you will be responsible for one person with dementia and will be expected to talk with
[Today's schedule]

9:00	Orientation * health check, appearance check * schedule Role playing
9:30	Initial communication with the person with
10:30	Reflection (use checklist)
11:00	Second communication with the person with
12:00	Close
12:20	Dismissal

[Role playing]
You will have a time for role playing before communicating with the person with

[Explanation for the checklist]
You will write the checklist later when you come back to this study room.

[Reflection time]
You need to write a checklist first and talk with the facilitator.
Then, plan the second half communication time.

[Points to remember]
* You must treat personal information carefully and protect all personal information.
* All you can do is communicate. You can not perform physical care at any time during the program.
* If you had any trouble during the program, you need to report it to the dayservice staff.
* If you are not feel well, please contact any available staff.

Subsection 4 Action research program

1. Preparation

By welcoming dementia supporters who participated in the program with greetings and self-introductions, the supporters were made to feel comfortable. We guided them through the rooms where the day service and conversations took place, the luggage storage rooms, and the restroom so that the supporters would not get into trouble. Moreover, orientation was conducted to explain the program's objective and content and highlight important points. By understanding the overall program, we made sure they felt a sense of security. The facilitators explained to the supporters that if they get sick or have trouble, they could stop the program and rest. The supporters' clothes were checked so as people with dementia would not feel uncomfortable.

2. Concrete experiences

In Kolb's first stage, learners observe and learn through their environment. First, role-play within groups of three dementia supporters was conducted to simulate experience. The purpose of the role-play was to practice the supporters' approach, including how they introduced themselves, their tone, standing position, and facial expressions when they first encountered people with dementia. We hoped this exercise would make the supporters feel prepared, and their first meeting with people with dementia would be smooth. There were three roles: person with dementia, the supporter, and the observer. These were exchanged after a few minutes so that all group members could experience each role. The role-play was set in the day service context. To help the supporters understand better, hard copies of the cases were handed out, and if necessary, demonstrations were given by facilitators. Then, the supporters chose their partner for the conversation. Criteria for determining the degree of independence in daily life for people with dementia were Ⅰ or Ⅱ (mild symptoms); people who only had core symptoms and not peripheral symptoms and people who agreed to have communication with dementia supporters were the target of the study. The target person and dementia supporter were matched according to the physical condition of the target on the day of the service, the dementia supporters' request, and through meetings of the facilitator and the leader of the day service center.

In this stage, the facilitator's responsibility was to create an appropriate environment. The facilitator prepared rooms that dementia supporters could use and, by doing so, relieved the tension and made an appropriate environment for conversations. Moreover, facilitator created a relation between the facilitator and the dementia supporters to consult and support positive attitudes toward the program.

Specifically, in this stage, dementia supporters introduced themselves to the person with dementia and started their conversation. Facilitator watched over the dementia supporters if they could introduce themselves and could started conversation smoothly.

3. Reflective observation

According to Kolb's theory, this stage is where the learner's behavior and the content of the conversation had to be remembered. Dementia supporters finished the first half of the communication and moved from the day service place to another room. The other room was the quiet one where the orientation took place in the morning.

Introspective observation meant they had to reflect on their experience, feelings, and thoughts during the experience. In the second stage, the facilitators supported self-expression of the dementia supporters. First, the busy environment of the day service was not appropriate for the dementia supporters to reflect on their experiences. The privacy of the supporters' remarks was considered so that they could safely speak about themselves. It is important to give time and a place where they could calmly think. Even if the conversation between the supporters and the dementia person is going well, facilitators must call the dementia supporters out after the first half of the communication and guide them to the other room. Moreover, facilitators need to actively listen to what the supporters say. During the experience, the dementia supporters tend to focus on the content of the conversation, specifically, the people with dementia's characteristics, such as "what symptoms did the person with dementia have," "what was their background," "what else did the person with dementia talk about." The facilitators ensured that the supporters focused on the meaning of their behavior and words. The supporters were able to deepen their feelings and thoughts about their experience by giving them a meaning.

4. Abstract conceptualization

In this stage, the experience is generalized and abstracted to give the dementia supporters steps. The supporters transit to the abstract concept from the interphase concept. In Kolb's model, generalization of the experience is not temporary, but a general concept is characteristic of this stage.

The involvement of the facilitator is to give support to the dementia supporters through education. One

of the tasks is to give dementia supporters positive feedback. This task aimed to encourage dementia supporters to discuss any positive points regarding their communication and behavior so that they could find meaning in the activity. Regarding the involvement of the facilitator, the followings are examples of two cases.

<Case 1>

Concrete experiences: During communication, people with dementia ask the same things repeatedly. To not disappoint them, supporters listen as if it was the first time, every time.

Reflective observation: Making a link between things learned in the lecture to perceive memory disorder as one of the symptoms of dementia. However, the repetition of the conversation is always the same. Is this ok?

Involvement of facilitator (giving a new perspective): People only talk about what they have experienced. Each person has different experiences so talking about things from different perspectives might bring out what people with dementia might be interested in.

Abstract conceptualization: What people with dementia might be interested in, based on their old experience. Try to get their stories out.

<Case 2>

Concrete experiences: As the supporter does not know what to talk about, the person with dementia is silent. The supporters make people with dementia tell their stories.

Reflective observation: There are different contexts in the supporters' conversation which the person with dementia might not have been able to understand.

Involvement of facilitator (positive feedback, giving a new perspective): Supporters have to use words or sentences that people with dementia can understand. Otherwise, the conversation will end with responses like "it is ○○," or "Yes."

Abstract conceptualization: People with dementia are likely to hurt their self-esteem, and if they do not understand, they feel embarrassed. That is why they cannot say "I don't understand." It is important to talk to them using simple content and sentences.

5. Active experimentation

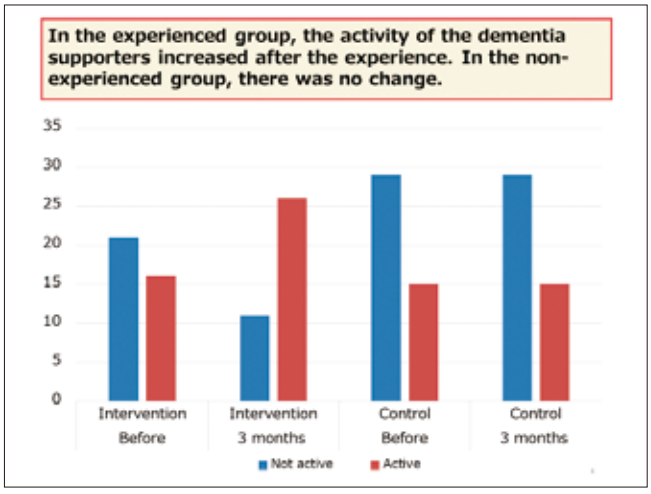
This is the last stage and helps to demonstrate the learning gained so far in a new scene. It is a stage where abstract conceptualization is put to practice. It is important to not just reflect on what you have experienced but to be able to put the experience into practice. The facilitators need to promote proper awareness and support new challenges for the supporters.

Section 3 The outcome of action research

Subsection 1 Comparison of dementia supporters' activities between group with experience and group without experience

In the intervention group, the number of actively involved dementia supporters were increased 1.6 times after the three months. However, in the control group, the number of actively involved dementia supporters did not change before and after the three months (Figure 4).

Figure 4 Changes in activity involvement rates among dementia supporters



Subsection 2 Interview results

The supporters who experienced the program were interviewed. Their answers were written on paper and analyzed according to the content similarity. There were five categories were extracted: understanding of people with dementia, respect for the willingness of

people with dementia to speak, communication skills, supporting within the possible range, and utilizing their learning from the program for supporter's activities in the community.

We used the same words as the supporters' remarks as much as possible.

1. Understanding of people with dementia

Statements of the dementia supporters included: a) "People with dementia clearly remember their old days and were surprised because there were no mistakes," b) "They remembered things from their old days such as their husbands' age when they passed away, their jobs, their daughter's marriage," c) "When asked about their old days, they talk a lot. So, I got to learn that dementia is forgetting about the present," d) "I thought their daily life was bland, but they were lively and clean," e) "I thought that we won't be able to talk as much, but I enjoyed talking with them a lot," f)" As people with dementia have lower cognitive skills, it must be very scary to get scolded or be spoken to in a loud voice," and g) "I could learn many valuable things from their repetitive content, and I could understand them from a different perspective." These remarks are positive. The dementia supporters had a negative feeling toward people with dementia, but after the experiential learning program, there was a positive change in their opinion.

2. Respect for the willingness of people with dementia to speak

Regarding this dementia supporters statement: a) "Even if it's the same content, I could say yes and listen," b) "They talked about the same thing over and over, but I tried to listen as it was the first time," and c) "If the response from the people with dementia is calm, they can talk without withering, and I thought their dementia is not getting worse." These statements show how the dementia supporters perceived the repetitive talking.

Furthermore, the dementia supporters recognized that people with dementia have feelings even though they have low cognitive skills. "It is good to agree with the people with dementia by saying 'great' or 'wonderful'," "Saying 'thank you' was a good way to make them feel good and it makes the people with dementia talk,' "It is not that they don't understand anything, and even though they say the same things repetitively, they have a feeling of support for the other person," and "It might be their self-esteem, but they seemed embarrassed if we spoke about something they didn't know."

3. Communication skills

These results included remarks such as "I was able to listen around 60% of the talking with the person with dementia," "I realized that I was listening for my own good," and "I wanted to look at her expressions more carefully and wanted to increase her smiles." The dementia supporters seemed to deeply consider how to listen and what kind of consciousness was needed.

4. Supporting within the possible range

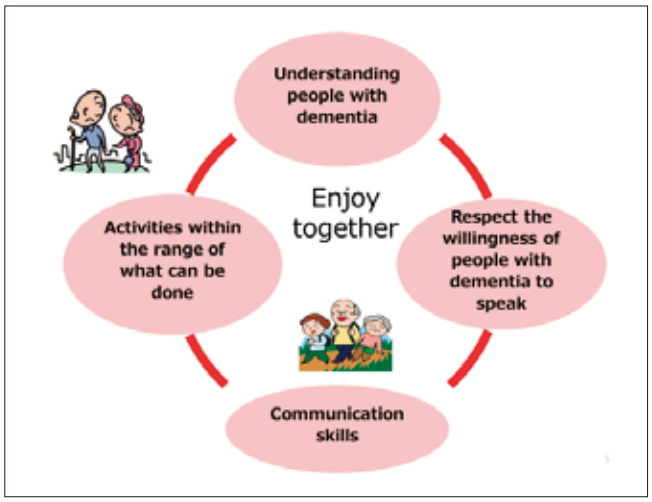
These results showed the importance of noticing in daily life. They include remarks such as "I noticed that there are many open houses in the neighborhood. The shutters are closed, there are no laundries drying outside," "I try to talk with people with dementia when I am walking around the neighborhood."

Furthermore, remarks such as "It will be the end of homecare if the family care givers give up the care to family members with dementia under the burden of nursing care," and "I want to make a relationship with family care givers that would make their burden lighter" were recorded, which show necessity of support for family care givers who care people with dementia in the community.

5. Utilizing their learning from the program for supporter's activities in the community.

The remarks also included: "If there is some knowledge about dementia, we can connect with someone who needs help," "Having a conversation with person with dementia was useful for future activities," and "By getting together with actual people with dementia, I was able to learn a lot, like how to start the conversation."

Figure 5 The key to empowerment of dementia supporters



Section 4 The key to empowerment of action research

The communication experience with people with dementia connected to the deep understanding of them, and dementia supporters improved their consciousness and interest toward the dementia care in the community. This program's peculiarity is to address the time of reflective observation. During this time, the dementia supporters were able to reflect on their experience and learned the importance of their learning. It is important to understand about dementia care in the community as if it is the issue for yourself.

One of the most important rules of empowerment is "to enjoy together" (Anme, 2014). In this program, to enjoy communication with people with dementia leads to increased motivation of the continuous interaction with people with dementia in their community and their involvement in activities (Figure 5).

References

1. Anme T, Empowerment science along with the life, Kitaoji-shobo publishing, Kyoto, 2014
2. Arakawa H, Kamiyama M, Motives of dementia supporters who attended the training sessions, and resolution of issues in order to empower them in supporting people with dementia in their community, The Japanese society for dementia care, 15(3), 634-646, 2016
3. Hoyrup S, Reflection as a core process in organizational learning, Journal of Workplace Learning, 16(8), 442-454, 2004
4. National social security, Population research institute, Expected population in Japan, 2017 [cited Dec. 25, 2018]. Available from: http://www.ipss.go.jp/pp-shicyoson/j/shicyoson18/6houkoku/houkoku.pdf. Retrieved 2020.11.5
5. Ministry of health, labor, and welfare. National life survey in Japan, 2018 [cited 2019]. Available from: https://www.mhlw.go.jp/toukei/saikin/hw/k-tyosa/k-tyosa18/dl/02.pdf. Retrieved 2020.11.6
6. Kolb D.A., Experiential Learning: Experience as the Source of Learning and Development, Prentice Hall, Inc., Englewood cliffs, New Jersey, 1984
7. Ministry of health, labor, and welfare. Report for elderly care research [2015].
8. Ministry of health, labor, and welfare. New orange plan. Retrieved 2020.11.5 from http://www.mhlw.go.jp/file/06-Seisakujouhou-12300000-Roukenkyoku/nop101.pdf
9. Ministry of health, labor, and welfare, Report of consideration for term of [CIHOU], 2004, Retrieved 2020.11.5 from https://www.mhlw.go.jp/shingi/2004/12/s1224-17.html
10. Mizuno Y, Person-centered care, World planning Inc., Tokyo, 117-22, 2011
11. Mochizuki K, Analysis of concept formation process using Kolb's experiential learning theory: through reflection on school support project, University of Shizuoka, departmental bulletin paper. 24, 155-162, 2015
12. Cabinet Office, Aged White Paper, 2018. Retrieved 2020.11.5 from https://www8.cao.go.jp/kourei/whitepaper/w-2019/html/zenbun/index.html
13. The Japanese society for dementia care, Dictionary of dementia care, World planning Inc., Tokyo, 2016

Chapter 14

Disaster Prevention and Education for Leave No One Behind

Section 1

Action research story

This chapter introduces an action research case in which a manual, reflecting the thoughts of the parties involved, is created for disaster mitigation to ensure that no one is left behind.

With regard to the relationship between social development and disaster mitigation, the Sustainable Development Goals (SDGs) have several inter-related goals such as promoting welfare (health and welfare) and goal 11, namely "achieving inclusive, safe, resilient and sustainable cities and human habitation (sustainable cities)." Earthquakes, floods, and other natural disasters destroy tangible and intangible assets of the developing and developed societies, contributing to regional poverty, deterioration of health and welfare services, and risks in continuing to live in familiar areas. For this reason, disaster prevention and mitigation initiatives are important issues not only for the developing countries but for the world in general.

Against this social background, the 3rd United Nations World Conference on Disaster Risk Reduction agreed to follow the four actions prioritized in the "Sendai Framework for Disaster Risk Reduction 2015-2030" (MOFA, 2015). The four priorities are: 1) understanding disaster risk, 2) strengthening disaster risk governance to manage disaster risk, 3) investing in disaster risk reduction for resilience, and 4) investing in disaster risk reduction for resilience. It is necessary to substantially reduce the casualties caused by disasters as well as the damages to critical infrastructures such as health facilities, and minimize the destruction of basic services through the development of resilience. In order to achieve this, in addition to public national measures, it is essential to also have a disaster prevention system for the local community, comprising self-help and mutual help.

In the event of natural disasters such as earthquakes, floods, typhoons, and tsunamis, maternal women, children, and the elderly are the most vulnerable to disasters. A major problem arising in such situations is that of the support being delayed, for these are not situations that can be understood at first glance. It is easy to be left out of support when they cannot seek help on their own. In order to improve the current situation, we created a disaster mitigation manual that reflects the thoughts of the parties involved.

Figure 1 presents the design for the creation of a disaster mitigation manual that reflects the thoughts of the parties involved and empower them. It includes the following:

1. Objectives

The overall goal is evacuation and rebuilding of life, ensuring that no one is left behind. In addition, this action research is aimed at improving the resilience of parties and communities. The specific goals add to the existing content to improve the ability to obtain support from people and promote self-help and mutual help.

2. The present

There were several obstacles to achieving the abovementioned goal: difficulties at the time of evacuation; lack of a place to accommodate the parties after the evacuation; increased anxiety among parties, including the professionals; long-term effects on children's development post disaster; and widening disparities after disasters (scissor-like disparities). The potential solution was to increase resilience through the participation of the parties involved, involvement of professionals for collaboration and long-term support, and promotion of regional development during normal times.

3. Background

These issues exist against the background of frequent natural disasters, epidemics of infectious diseases, declining birthrate and aging population, declining ground edge, and inadequate availability of welfare shelters. The problems caused by these issues affect all community members.

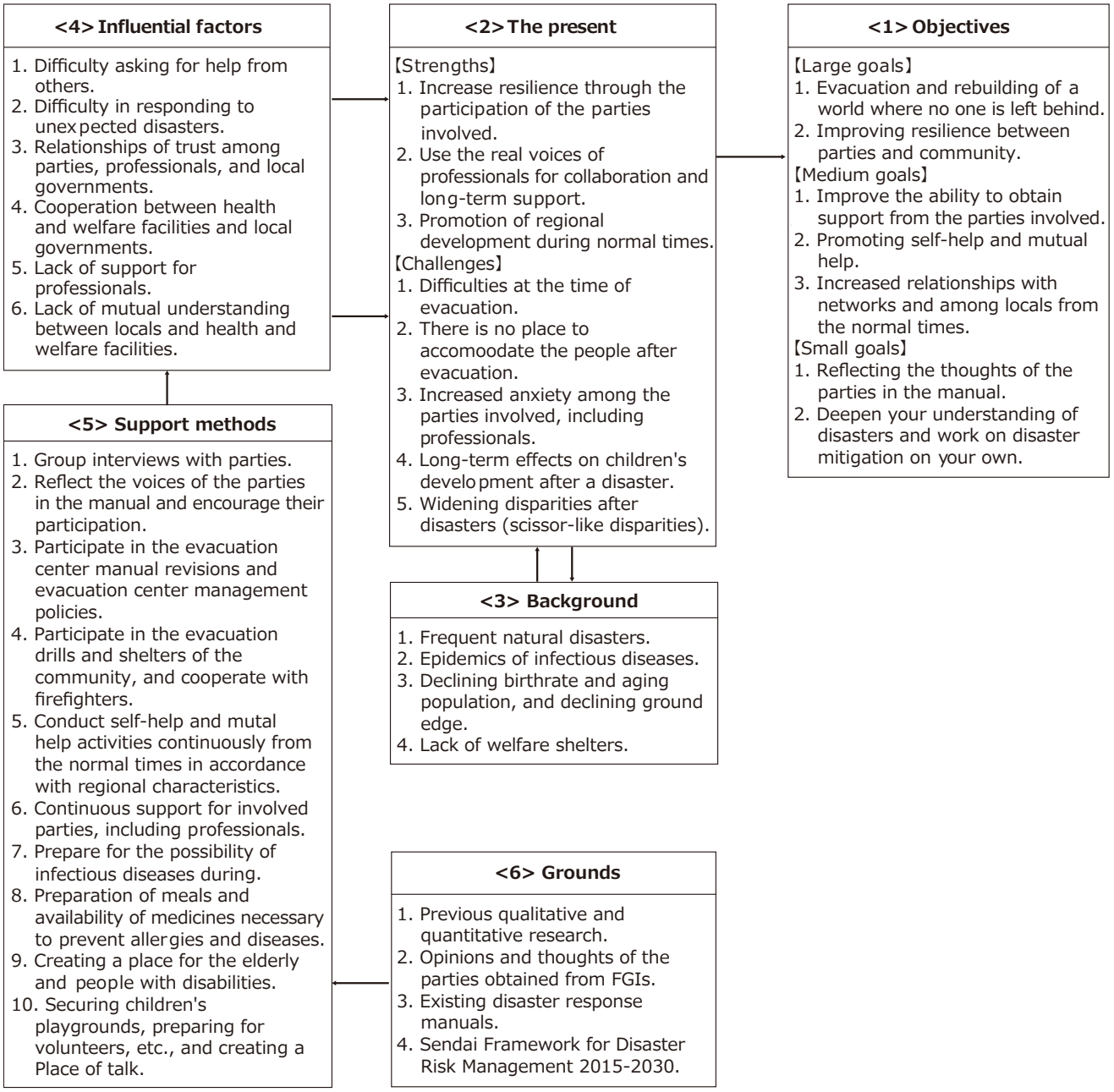
4. Influential factors

These specific issues are influenced by factors such as difficulties in asking for help and in responding to unexpected disasters; relationships of trust between parties, professionals, and local governments; cooperation between health and welfare facilities and local governments; lack of support for professionals; and lack of mutual understanding among neighbors.

5. Support methods

As a support method, the voices of the parties from group interviews are reflected in the manual, and the participation of the parties involved is encouraged. In addition, there was an emphasis on one's participation in evacuation center manual revisions, evacuation center management policies, evacuation drills and shelters

Figure 1 Design for supporting empowerment



for the community, and cooperation with firefighters. They conduct self-help and mutual help activities continuously from the normal times in accordance to the regional characteristics and provide support to the parties involved, including professionals. In addition, preparation for diverse measures were discussed: preparing for the possibility of infectious diseases during evacuation, preparing the meals and having the medicines necessary for allergies and diseases available, creating a place for the elderly and people with disabilities, securing children's playgrounds, preparing for volunteers, and preparing accommodation for all evacuees .

6. Grounds

The basis for these practices included the following: previous qualitative and quantitative research, opinions and thoughts of the involved parties obtained from focus group interviews (FGIs), existing disaster response manuals, and the Sendai Framework for Disaster Risk Management 2015–2030 (MOFA, 2015).

Section 2 Action research process

We aimed to increase resilience through the disaster mitigation devices found around the region and centered on the parties involved. In the event of natural disasters such as earthquakes, floods, typhoons, and tsunamis, maternal women, children, and the elderly are the most vulnerable to disasters. A major problem that arises in such situations is that of the support being delayed, for these are not situations that can be understood at first glance and it is easy to be left out of support when they cannot seek help on their own. In order to improve the current situation, we created a disaster mitigation manual that reflects the thoughts of the parties involved.

FGIs have been employed in the current research as a method to collect the thoughts of residents and professionals. An FGI is a qualitative research method that uses group dynamics. Each 90-minute FGI actively recorded how people reconcile by talking about their own thoughts, feelings, perceptions, and opinions within a group of people who are also talking about their thoughts, feelings, and opinions. The FGI captured the real voices of the residents and professionals involved and systematized these thoughts based on the seven elements of realizing community empowerment. The parties mentioned here refer to parents of infants, the elderly, people with disabilities, healthcare and social welfare professionals, etc.

In the past, the experiences and thoughts of the parties involved were systematized in categories of parents, expectant and nursing women (Mashiki Town), professionals who worked in daycare centers (Ishinomaki City and Mashiki Town), and people from areas that had experienced *Isewan typhoons* in the past (Toshima Village), which led to the creation of the manual (Figure 2). The goal of this project is to increase the understanding of the parties involved and increase the resilience of the parties and regions to disasters through the creation of manuals that reflect their thoughts.

Section 3 Action research outcomes

We worked on creating a system that does not leave anyone behind from a long-term follow-up perspective. FGIs with the parties revealed that "it is important to be involved from a long-term perspective" and that "it is important to build and deepen relationships rooted in the local community before disasters."

For example, a professional who has been providing support for nearly 10 years said, "A child who was a multi-sense junior high and high school student at the time of the disaster is now a guardian; even though he was not a victim of domestic violence or neglect, if it is left to people, it seems that they are not able to become guardians well." He further said, "I'm not going to do that." I was strongly concerned that the decline in the quality of the relationship between children and their parents at the time of the disaster would lead to children finding it difficult to become parents in the future.

Nearly a decade after the disaster, many professionals still find themselves in anguish and conflict, raising the question, "How should we act if a disaster occurs now?" The manual includes the need for having a long-term

follow-up for not just children, families, and residents but also for professionals.

Section 4 Tips for empowerment in action research

This action research is characterized by the connection between homes and communities during normal times and by the implementation of the PDCA cycle based on the parties involved. Each resident living in the community is responsible for the efforts put in to disaster reduction. One of the party said, "In the case of a disaster, there will be no means of transportation, so I will get the physical strength to walk." Another person spoke about ingenuities such as "it is important to help each other in the neighborhood on a normal day."

Connections with local communities are not built overnight. It is difficult to suddenly help each other

Figure 2 Devising a systematic manual that reflects the thoughts of the parties involved

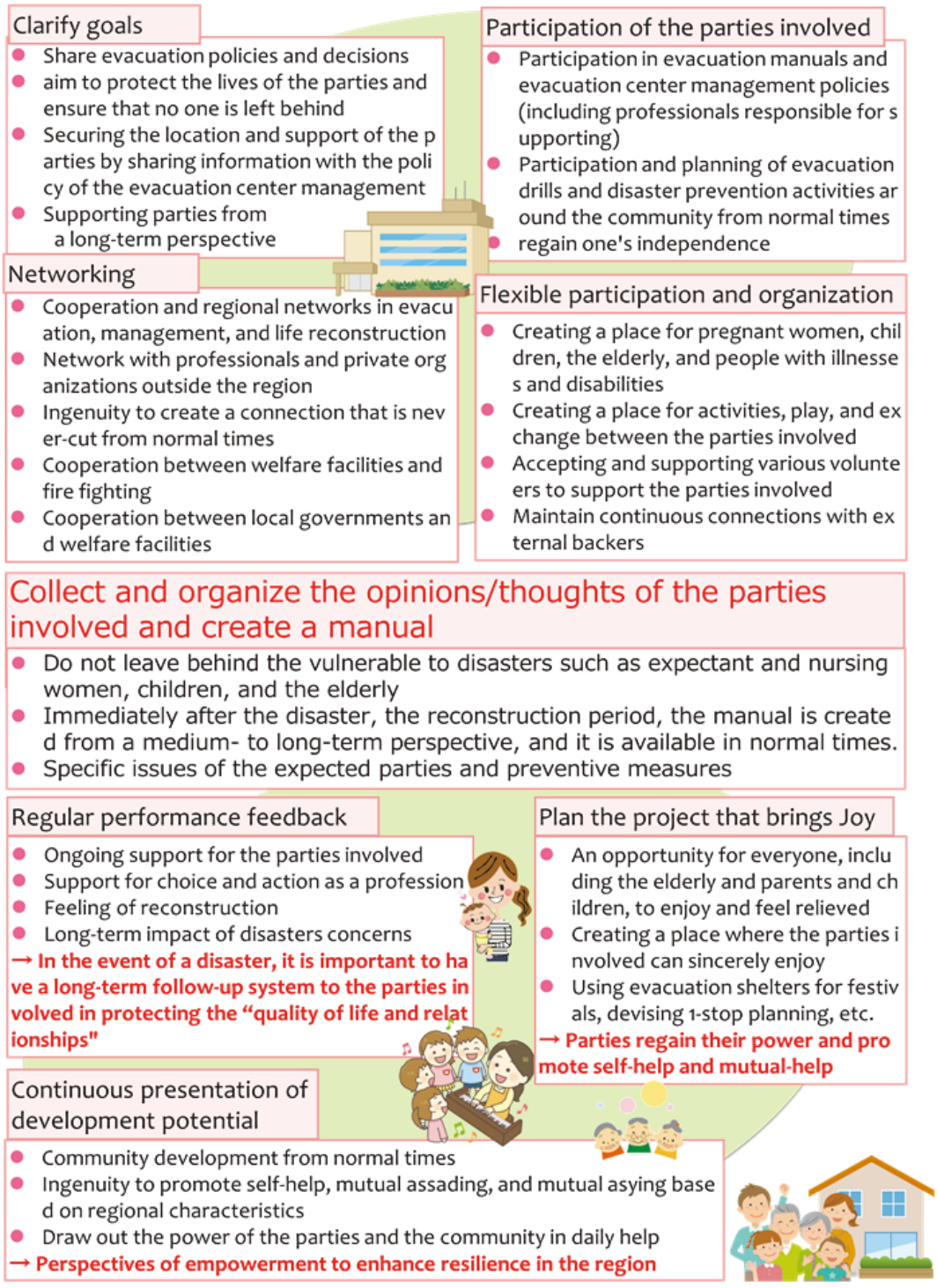
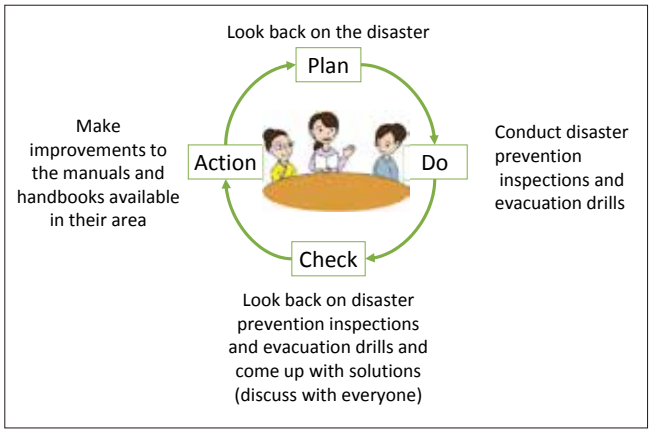


Figure 3 PDCA cycle for disaster reduction



in the times of a disaster without knowing each other well. Mutual assistance is fostered based on mutual understanding and trust, accumulated in the course of daily life rooted in local community. The manual emphasizes on the importance of implementing and continuing self-help and mutual help activities, in normal times, that match the regional characteristics.

The opinions of the involved parties obtained from the FGIs were reflected in the manual, and the process of "leading to improvement" was shared with them. As a result, the plan-do-check-act cycle works to identify individual, organizational, and community issues and improve the model on its own (Figure 3).

It can be said that co-creation action research is a collaboration among all parties involved. Based on the perspective of community enhancement (Figure 1), the research is expected to enhance resilience to facilitate a flexible response to disasters and aid further development of disaster mitigation throughout the region.

References

1. Anme T, Empowerment sciences with Brightness of Life, Kitaoji Syobo, 2014
2. Ministry of Foreign Affairs of Japan, Sendai Framework for Disaster Risk Reduction 2015-2030, 2015 https://www.mofa.go.jp/mofaj/files/000071589.pdf (Accessed December 30, 2020)
3. Nakaita I, Mental care for parents and children in Disasters: Road map of Public Health Nursing, 2015 http://www.bousai.go.jp/kaigirep/kentokai/hinanzyokakuho/wg_situ/pdf/dai3kaisankou3.pdf (Accessed December 30, 2020)
4. Tanaka E, Tomisaki E, Sawada Y, Anme T, A Qualitative Approach to Requirements on Health Services for Mothers and Children in Disasters: From the Viewpoint of Empowering the Community, The Journal of Child Health, 79(5), 415-421, 2020

Chapter 15

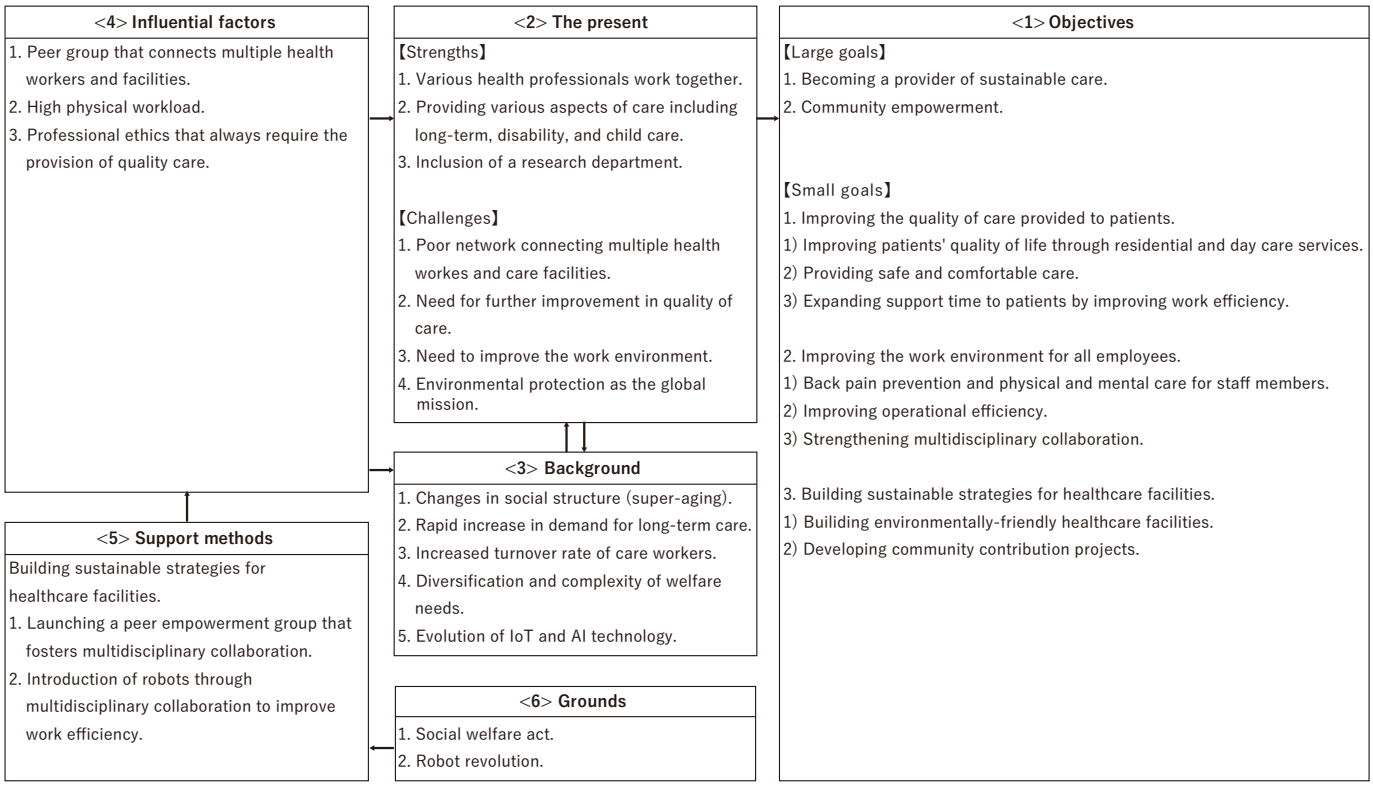
Interdisciplinary Collaboration and Robotics Use

Section 1 Action research story

Action research is a method that leads to higher quality practice. In the medical and welfare field, there is a strong demand for improvement of the work environment due to the rapid increase in demand for long-term care, increased turnover rate of caregivers, and diversification and complexity of needs. In Japan especially, while political reforms have been underway to provide sustainable care, there is a significant increase in the number of people requiring long-term care. One of the reform is "Growth Strategy 2018" (Headquarters for Japan's Economic Revitalization, 2018) that suggests a strategy to solve social issues and contribute to the achievement of the Sustainable Development Goals (SDGs). "Growth Strategy 2018" has promoted the development and introduction of robots that utilize artificial intelligence (AI) and the Internet of Things (IoT) in care facilities. By introducing robots in care practice, problems such as increased turnover rate of caregivers and burden are expected to be resolved.

This chapter presents an example of action research that introduces robots through interdisciplinary collaboration conducted by a Japanese social welfare corporation. In recent years, people's medical and welfare needs have diversified due to changes in social conditions. Interdisciplinary collaboration (WHO, 2010) is becoming increasingly important to improve care quality and safety and respond to complex needs. Action research through interdisciplinary collaboration can reflect various specialties and values in care practices. In this study, participants make their own decisions, and all processes, including extraction of issues, planning, introducing robots, and evaluation, were carried out through interdisciplinary collaboration.

Figure 1 Design for empowerment



We drew **design for empowerment** (Figure 1) to organize the strengths and issues of the care practices in the target facilities.

1. Objectives

First, we set the ultimate objectives: 1) becoming a provider of sustainable care in the community and 2) community empowerment. Small goals were also set: 1) improving the quality of care provided to patients, 2) improving the work environment, and 3) building sustainable strategies for healthcare facilities.

2. The Present

One of the greatest strengths is the environment to which various health professionals, including caregivers, nurses, physiotherapists, occupational therapists, and childcare workers, belong. The target social welfare corporation has 19 facilities, including residential care and daycare services for older adults and persons with disabilities and nursery schools for children, and over 400 staff members. Moreover, this facility has a research department that can help health professionals access scientific advice regarding the evaluation of their practices.

However, while various health professionals work in the target organization, the strengths are not fully capitalized. Interdisciplinary connections (especially between facilities) were weak because no organizations or systems could connect between facilities.

Furthermore, there were other universal issues such as high physical burden on long-term care workers, high turnover rate, and environmental protection. Improving the working environment and developing a strategy to become a sustainable and eco-friendly care provider in the community was an urgent task.

3. Background and other influential factors

Background factors include the rapid increase in demand for long-term care, the increased turnover rate of caregivers, and diversification and complexity of needs. In recent years, robots and welfare equipment using AI and IoT have been actively developed and moved to the stage of practical evaluation.

Regarding influential factors, we believe that establishing a peer group that connects multiple occupations and facilities may foster the collaboration of health professionals with diverse expertise. Moreover, work characteristics such as high physical load and professional ethics that always require high-quality care were cited as influential factors.

4. Support methods

Considering the issue of care practices in the target organization, background, and influential factors, we built sustainable strategies for healthcare facilities as support methods.

1) Launching a peer empowerment group to foster interdisciplinary collaboration

We established a peer empowerment group that allows multi-professionals to consult and exchange information. The aim was to build networks through the peer group and to create **synergistic effects of self-empowerment** and peer empowerment in which members with different specialties and values could help each other. In the second strategy, interdisciplinary research collaboration through the peer empowerment group was used to introduce the robots.

2) Introducing robots through interdisciplinary research collaboration

We introduced robots through interdisciplinary collaboration by a peer empowerment group to improve patient satisfaction, reduce the physical burden on long-term care workers, and be an eco-friendly organization. Each facility selected the robots suited for their working environment and evaluated the process and effect of using robots in their care practices.

Section 2 Action research process

Step 1

Creation stage: Launching the peer empowerment group and preparing for the introduction of robots

In the creation stage, we conceptualized the

Figure 2 Pictures of demonstration

activities of the peer empowerment group. Specifically, we decided on the functions, roles, and team members of the group. After team members were selected, each member collected and coordinated information such as issues of each facility, equipment selection, and adjusting sales companies. Furthermore, to increase employee involvement, we created a way for the members to touch and use the robot, such as by giving a lecture using the actual robot.

Step 2

Adaptation stage: Launching the peer empowerment group and introducing the robots

In the adaptation stage, we introduced the robots into care practices. First, while emphasizing the use of robots, we also focused on the next development, such as evaluation. Health workers who used robotics recorded their daily reports.

The main peer group activity was to meet members after work and hold regular meetings. While sharing each team's efforts, current situation, and introduction plan, we exchanged opinions from each expert and shared success stories and tips. The activities continued sustainably, reaching the maintenance stage, where activities and relationships became steady over the years.

Figure 3 Animal robot therapy care for persons with dementia in the group home

Step 3

Sustenance stage: Visualization of effects

While health professionals realized the effect of the robots, the impact of introducing the robot was measured to verify the effect and develop new utilization methods. Moreover, the members gathered the practical results and presented them at academic conferences and equipment exhibitions. The evaluation measurement was decided through discussions by the peer empowerment group from the perspective of various specialized members.

Step 4

Expansion stage: Searching for the development of activities and new application examples according to evaluations and issues

Based on the extracted issues, we revised the usage rules to make it easier for the members to use the robot to create a more manageable environment. Along with using robots in daily care settings, we also used them in community dwellers. Occasionally, we provided feedback on the usability and durability of the robot to the development companies to help improve the technology. It is expected that robot utilization will be developed in the future by searching for new applications and activities.

Section 3 Action research outcomes

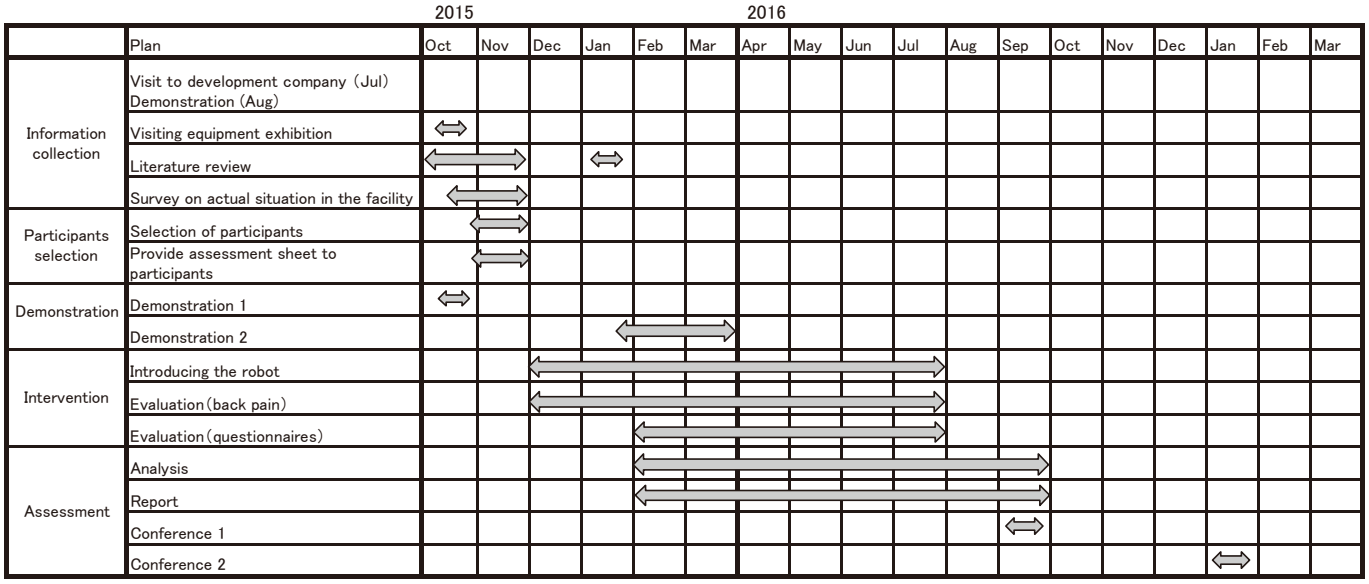
Outcome 1: Results of introducing the robots in care settings

Many robots have been introduced through interdisciplinary research collaboration by the peer empowerment group. Over 90 robots and labor-saving equipment, such as lifts, animal robots, communication robots, wearable body assist suits for caregivers, cleaning equipment, and garbage disposal, have been introduced by this project (Table 1).

Table 1 Examples of the robots introduced in this project

Facility	Robots	Effect
Day care services for older adults	Communication robot	Patient's satisfaction
Nursing home	Wearable body assist suits for caregivers	Back pain prevention
	Wet towel machine	Environmental protection
	Commercial floor washer	Labor saving and improvement of the work environment for persons with disabilities
Facilities for children with severe physical and mental disabilities	Wearable body assist suits for caregivers	Back pain prevention
	Lift	Back pain prevention
	Electric carrier	Labor-saving and improvement of the work environment for persons with disabilities
Disability support facility	Animal robot	Patient's satisfaction
	Lift	Back pain prevention
	Power saving equipment	Environmental protection
Nursery school	Wet towel machine	Environmental protection
	Garbage disposals	Environmental protection

Figure 4 Plan for introducing a wearable body assist suit for caregivers



Outcome 2: Process of introducing robots through interdisciplinary research collaboration

The Figure 4 presents the plan for introducing a wearable body assist suit for caregivers created by the peer empowerment group members. Before the introduction, a physiotherapist and a care worker collaborated to plan from introduction to evaluation. As an expert in assessing physical function, the physiotherapist contributed significantly to selecting the evaluation items. However, as the caregiver was familiar with the actual working situation, he took the initiative in deciding the framework, such as usage rules that made it easy for him to introduce the robot. Action research always requires agility to respond flexibly to changes in the environment. However, by creating a way to assess this, we could proceed effectively.

Outcome 3: Evaluation of introducing robot

We conducted several pilot surveys to assess the effect of robotics in care settings. Table 2 shows examples of the evaluation measurements. The measurement was decided through discussions in the peer empowerment group from the perspective of each expert.

Moreover, for the objective evaluation, focus group

Table 2 Examples of evaluation measurement

Robots	Measurement
Animal robot	· Stress evaluation by salivary amylase · Staff observation data by daily reports (irritability, smile, frequency of spoken) · Behavioral observation scale for older people with dementia · Healing effect on staff (burnout)
Wearable body assist suits for caregivers/Lift	· Pre- and post-intervention evaluation of physical load, low back pain, and work motivation using questionnaires · Descriptive analysis from daily reports and weekly reports (ease of use, proficiency in handling equipment, etc.)
Commercial floor washer	· Support time to patients
Others: Overall effects	· Comprehensive evaluation of individual, peer, and organizational empowerment effects through focus group discussions

interviews were conducted to evaluate the comprehensive evaluation of the individual, peer, and organizational empowerment effects (Sano et al., 2018). Focus group interviews are a research method in which participants deepen their discussions while exchanging opinions in small groups (about 4 to 10 people). The research department in the target organization conducted interviews with members of the peer empowerment group. By performing triangulation (Denzin, 1970) and using several evaluation methodologies, it is possible to evaluate potential effects that cannot be assessed quantitatively. By organizing and verbalizing the practices in the interviews, the participants created an empowerment effect that provided new awareness through their remarks, such as their growth, invisible effects, and new uses for robots.

After the introduction of the robot, we will implement a part of the evaluation of the wearable body assist suit for long-term care performed at the nursing home.

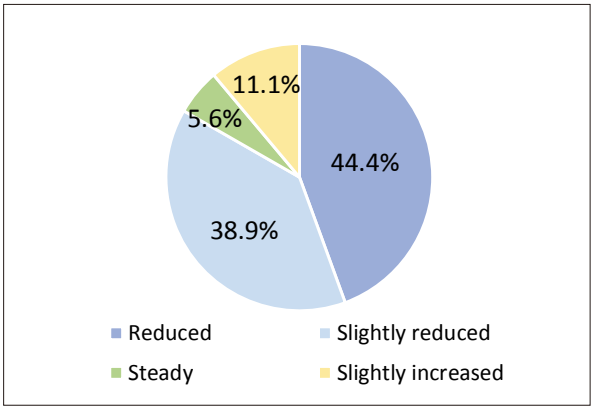
The effect of the wearable body assist suit

We evaluated the reduction of the burden on the lower back and the feeling of fatigue by the wearable body assist suit for caregivers. The burden on the lower back "reduced" (8 people, 44.4%) and "slightly reduced" (7 people, 38.9%), showing a subjective reduction due to the assistance work. Moreover, the feeling of fatigue after work also lessened; that is, it "reduced" (7 people, 38.9%) and "slightly reduced" (5 people, 27.8%). However, some employees did not notice any change.

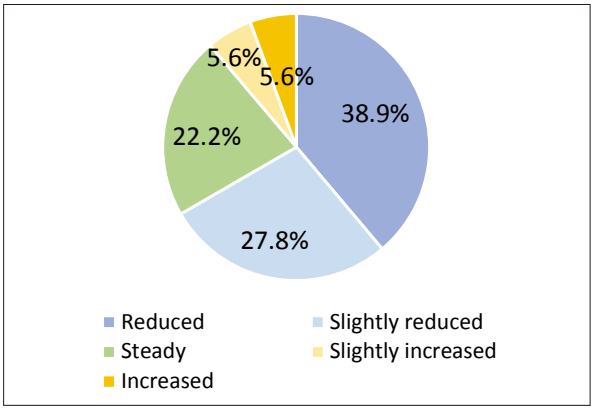
It is necessary to clarify whether the mitigation effect differs depending on individual characteristics such as gender and physical characteristics.

Figure 5 Effect of the wearable body assist suit

(1) Burden on the lower back

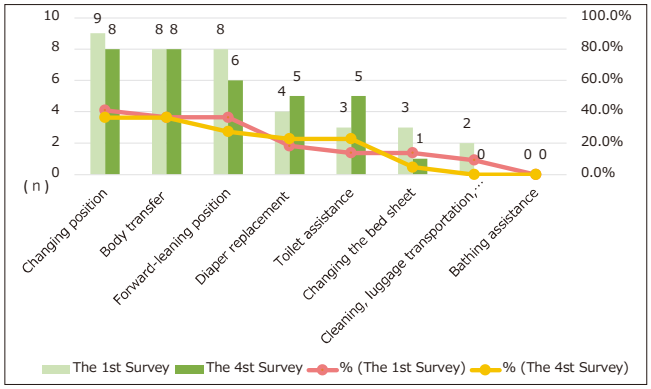


(2) Feeling of fatigue



Moreover, robots were mainly used for improving change, transferring assistance, and forward-learning position. For excretion assistance, diaper replacement and toilet assistance increased the number of users in the fourth survey, and t the range of use also expanded.

Figure 6 Situation for the use of the wearable body assist suit



Section 4 Empowerment tips in action research

The empowerment tips for action research are summarized according to the principle of self, peer, and community empowerment.

1. Self-empowerment

In this action research, professionals with diverse values examine at their thoughts, values, and issues in their daily practice, and share the same goals while enhancing each other's self-empowerment and peer empowerment. We created a synergistic mechanism. Self-empowerment, combined with peer empowerment, is further promoted by having colleagues who can empathize with and learn from each other. The key to self-empowerment is to involve each one of them and create a mechanism that works with peer empowerment.

2. Peer empowerment

In many organizations, there is a network within the organization, and relationships develop while empathizing and sharing values. This time, by establishing a peer empowerment group, we have the opportunity to "enjoy together" with people that we do not usually meet. Furthermore, as they shared their questions and experiences, intimate connections between members were created, and networking of empathy was promoted. The key to peer empowerment is to allow participants to enjoy the process together and create a network of empathy between the parties.

3. Community empowerment

Action research is a scientific method in which the parties work together to achieve their goals through practical issues and thoughts. In particular, we focused on interdisciplinary collaboration. An organization is usually made up of diverse people. As each professional has a different profession, it is possible to reflect various specialties and values into their care practices by fostering interdisciplinary collaboration. To archive community empowerment, it is effective to set strategies by promoting interdisciplinary collaboration and synergistic effects of self, peers, and community empowerment.

References

1. Headquarters for Japan's Economic Revitalization,Growth Strategy 2018(Detailed measures) , miraitousi2018_en2.pdf (kantei.go.jp)
2. World Health Organization, Framework for action on interprofessional education and collaborative practice, 2010
3. Sano C, Watanabe K., Sakayori M, Uruno K, Uruno M, Anme T, The effect of introducing care robots in care facilities and future prospect. International Journal of health and welfare statistics, 2018, 65(3), 22-28. In Japanese
4. Denzin Norman K, The Research Act: A Theoretical Introduction to Sociological Methods. Chicago: Aldine Pub. Co, 1970.

Conclusion　Enhance Co-Creative Action Research for a Sustainable Society

Action research is a practical way for people to work together and enrich society. Co-creative action research requires an empowerment mindset that has the joy of creating together and the adventurous spirit of taking on new challenges.

The empowerment mindset is the culmination of plasticity, diversity, and integrality. Because being able to change oneself and the environment is plasticity, which is further strengthened in diversity and integrated as a holistic and harmonious activity.

A person grows up for a lifetime in the diversity of various people and organizations, while squeezing the plasticity that flexibly changes himself and his environment. Action research has the potential to transform the overall structure of the society in which people live by capturing the changes weaving between people and the environment from a holistic and harmonious perspective.

In the process of action research, there may be tremendous difficulties. But in reality, chaos is an opportunity for the next leap. This is because the existence of two conflicting things at the same time increases the possibility of creating an "unexpected inspiration" to solve them. In a chaotic state, new ideas and other breakthroughs are increasingly plastic.

For example, babies grow their brains by choosing what they need from an overwhelmingly chaotic environment. In the process, each cranial nerve is selected so that it has the most suitable shape for the environment. In order to create something new, it is effective not to avoid chaos.

In order to use action research to solve various social issues, it is essential to develop practitioners and researchers who fully understand the basics of action research and empowerment. Creating people, peers, organizations, societies, and systems will realize a sustainable society.

We expect you to further utilization of empowerment and action research that will open up the future brilliance of people's lives.

Contributors

Tokie Anme, PhD (University of Tsukuba) Editor, Introduction, Chapter 1-5, Conclusion

Yuko Sawada, PhD (Morinomiya University of Medical Sciences) Chapter 6

Taeko Watanabe, PhD (Shukutoku University) Chapter 6

Rika Okumura (Tobishima) Chapter 6

Sumio Ito, MA (Tobishima) Chapter 6

Mitsuhiko Kato (Tobishima) Chapter 6

Chantsalsuren Mavag, PhD (National University of Mongolia) Chapter 7

Tsogbayar Bat-Ochir, MA (Norwegian Lutheran Mission Mongolia) Chapter 7

Amarsanaa Gan-Yadam, PhD (Philanthropy Center for Children and the Elderly Mongolia) Chapter 7

Yuka Sugisawa, PhD (Tsukuba International University) Chapter 8

Ryoji Shinohara, PhD (University of Yamanashi) Chapter 8

Etsuko Tomisaki, PhD (Sophia University) Chapter 9, Chapter 14

Emiko Tanaka, PhD (Musashino University) Chapter 9, Chapter 14

Hiroshi Tanaka, MA (Taiho Kanariya Child Care Center) Chapter 9

Sakai Hatsue, MA (Kokurakita Fureai Child Care Center) Chapter 9

Miyazaki Katsunobu, MA (Rokoukan) Chapter 9

Yuri Nurdiantami, MPH (University of Pembangunan Nasional Veteran) Chapter 10

Hilda M. Agil, MPH (The Collage of Health Sciences Medistra Indonesia) Chapter 11

Cunyean Kim, PhD (Leshan Normal University) Chapter 12

Bailiang Wu, PhD (Xihua University) Chapter 12

Zhu Zhu, MA (Xuzhou Early Childhood Education College) Chapter 12

Hiromo Arakawa, PhD (International University of Health and Welfare) Chapter 13

Kumi Watanabe, PhD (Hamamatsu) Chapter 15

Manabu Sakayori, MA (Hokokai) Chapter 15

Mitsuko Uruno, MA (Hokokai) Chapter 15

Koichi Uruno, MA (Hokokai) Chapter 15

Acknowledgement

The authors would like to express deepest thanks to our mentor Dr. Tadao Takayama, and all the participants and colleagues of our action researches.

Chapter1-9, 13, 15 based on the English translation of Co-creative Action Research Based on Empowerment Theories and Skills, Kitaohji Shobou, 2021.

About the Editor

Tokie Anme, PhD

Graduated from the Faculty of Medicine School of Health Sciences, University of Tokyo with a doctorate in health science.

Currently serves as professor, Faculty of Medicine, University of Tsukuba; Chairs International Systems and Empowerment Sciences for Lifespan Development and the Japanese Society of Human Sciences of Health-Social Services.

Chief publications are,

Creating Empowerment in Community: Theory and Practice from an International Perspective, NOVA, 2019.

Empowerment: Cross-Cultural Perspectives, Strategies and Psychological Benefits, New Empowerment Model on practical strategies for wellbeing, NOVA, 2016

Culture, Care and Community Empowerment: International Applications of Theory and Methods, Kawashima Press, 2008

—and many others.

Empowerment Based Co-Creative Action Research
Towards A World of Possibilities for Sustainable Society

First publication published February 28, 2021
Editing by Tokie Anme, PhD
Empowerment Research and Education Forum
Printed by Doho-Engokai

Copyright © 2021 Empowerment Research and Education Forum
ISBN978-4-9905933-2-2
Printed in Japan