Designing for Places of Mutual Learning

10 Facilitation Skills Learned from Environmental Education

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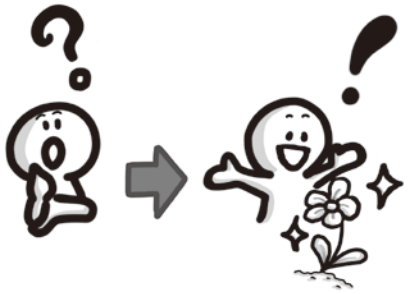
Introduction: What is learning to you?

If someone asked you what was memorable in your learning experience, what would come to your mind?

Many of you may recall times when you reinterpreted or discovered things, such as comprehending the meaning of a certain principle by yourself when engaged in science experiments or understanding local issues as if they were your own when interacting with local people.



Have you ever had the experience of immediately forgetting what you learned after reading a textbook, watching a video, or performing an experiment? On the other hand, even with time, don't you tend to remember what you have learned by incorporating participatory elements, such as role-playing and discussions, practice, and peer-to-peer teaching?

Merely explaining the contents of textbooks or writing down significant points for exams on a blackboard does not really help children learn in the true sense. It is necessary that they experience and discover for themselves in order to truly comprehend what they are learning.

In recent years, there is an ongoing discussion on "the ways to learn" in school education. Designing places of mutual learning is now getting a lot of attention as "in-depth learning through proactive efforts and dialogue (active learning)" has recently been introduced into the new Courses of Study established by MEXT.

Table 1: Types of Educational Activities

	Outdoors	Indoors
Non-formal education	(i) Nature-based experiential activities	(ii) Lectures and seminars
Formal education	(iii) Extracurricular and special activities	(iv) School subjects

In environmental education, outdoor extracurricular and special activities in school education (iii) have been mainly studied and practiced in addition to research on the ways of learning in Non-formal education (i and ii).

We believe that the experiences accumulated by designing places of mutual learning in the fields of i) to iii) will contribute to the promotion of “proactive and interactive learning (active learning),” which has been demanded in recent years in the course of school education through school subjects (iv).

This guidebook is intended for elementary and junior high school teachers who want to design or provide support for places of mutual learning where children can learn from each other. We will introduce skills in designing places of mutual learning for children which are gained from experiences in environmental education.

Let’s go on a journey to create “places of mutual learning.”

What is Facilitation?

Facilitation means “the act of helping person do something” or “the act of making easier.” It is a technique that enables participants to take the lead and work proactively, smoothly, and effectively when they gather to learn, communicate, or create something. Teachers must play the role of a facilitator when designing places of mutual learning.

The key to creating places of mutual learning is the “dialogue” held during meetings. We often hear “let’s break up into groups and discuss the topic,” but do “discussion” and “dialogue” mean the same?

The “cuss” in “discussion” means “to bat or hit”; hence, the word means to exchange opinions and debate with each other. In this situation, there is usually a winner and a loser, so it does not always result in a happy ending for everyone.

So, what about “dialogue”? David Bohm mentioned that “dialogue” comes from the Greek word “dialogos.” “Dia” means “through,” and “logos” means “the word,” so together, “dialogue” means “a stream of meaning” flowing all around us. According to Bohm, dialogue makes “possible a flow of meaning in the whole group, out of which may emerge some new understanding.” Thus, “dialogue” contains acts of creativity, such as discovering or creating something together.

“Dialogue” does not present the image of arguing over each other’s opinions like “discussion”; instead, it meaning emphasizes the sharing of ideas (the meaning of words) with each other through words. The process also has the potential to create new values and ideas that were not envisioned.

Thus, “discussions” are effective when dealing with a topic that has “one correct answer,” but when dealing with a topic that has “no correct answer” or may have “more than one correct answer,” “dialogues” are more appropriate.

To deepen the learning of children, it is necessary to understand the characteristics of "discussion" and "dialogue" and to utilize the value of "dialogue." The important thing is not to get closer to the correct answer but the process itself in which children can have hands-on experience and discover things on their own. Furthermore, discovering new values and ideas that are perceived through "dialogue" with others will lead to a deeper learning.

For these reasons, teachers should acquire facilitation skills and smooth the process that encourages children to learn from each other and in depth by creating places of mutual learning for children to experience and discover.

What should places of mutual learning created by teachers be like? It should be a place where children feel comfortable and can freely express their feelings and thoughts. Teachers should encourage, watch over, nurture, and share joy with the children.

This guidebook introduces 10 specific facilitation skills. Each skill can be used separately for preparation, lesson, evaluation, and improvement. Let's acquire the 10 facilitation skills and design places of mutual learning.

Table 2: 10 facilitation skills

Preparation	Skill 1: Program design Skill 2: Creation of space Skill 3: Group size	Skill 10: Use of tools
Class	Skill 4: Icebreaker activities Skill 5: Question design Skill 6: Acceptance Skill 7: Methods to convey ideas	
Evaluation and Improvement	Skill 8: Reflection and Sharing Skill 9: Feedback	

[Reference]
David Bohm, On Dialogue: From Conflict to Coexistence, From Discussion to Dialogue (Eiji Press, 2007)

Preparation

Skill ① Program Design: From One-way to Two-way and Multi-way Communication

In order to design places of mutual learning, it is necessary to formulate plans in advance. Planning a program within a given time by combining provision of topics, activities, and time to reflect is called program design.

In the program design, dividing the whole program into sections (introduction, development, denouement, and conclusion) makes it possible for you to grasp the overall plan and helps you create places of mutual learning. The following elements can be included in each section.

Introduction: time to grab attention, normally orientation or icebreaker activities

Development: time to experience and feel things and be receptive

Denouement: time for creative activities, such as creating something in a group

Conclusion: time to round up by presenting the group work and reflecting on the entire program

Program Design Mandala is a chart in which you write the aim or goal in the center and organize the elements around it. With this, you can express the flow of the entire program and the distribution of time in an easy-to-understand format.

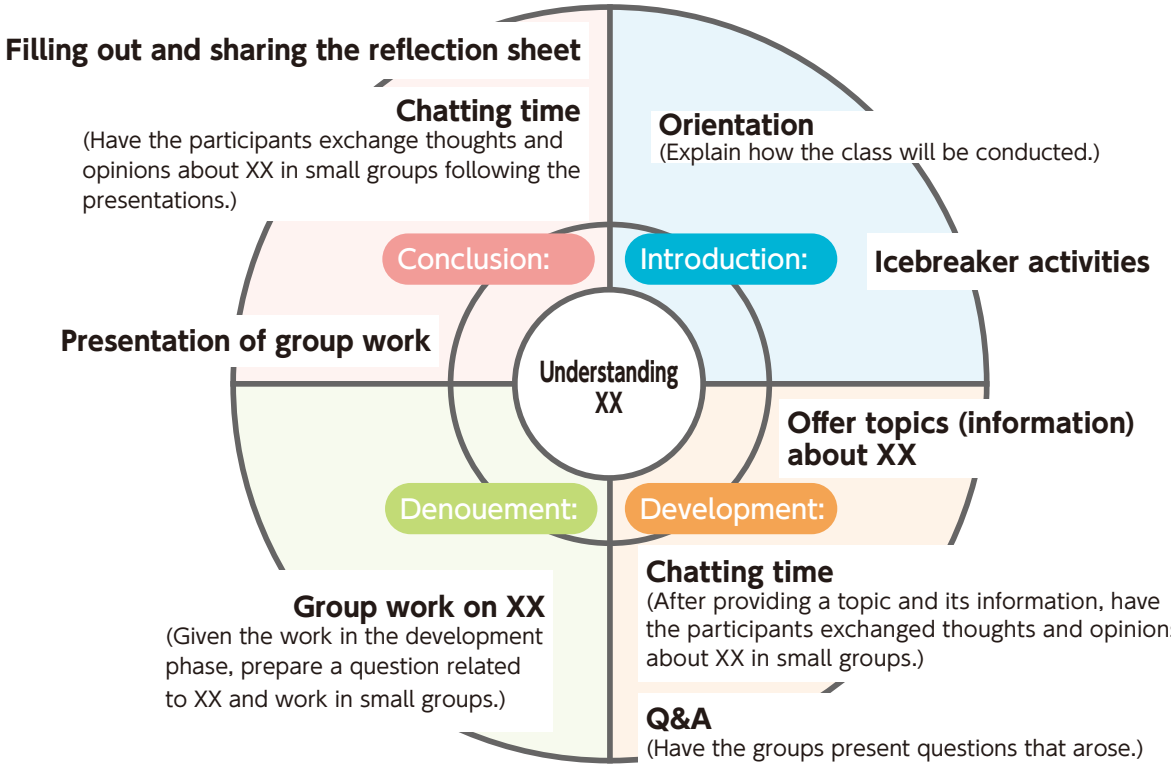
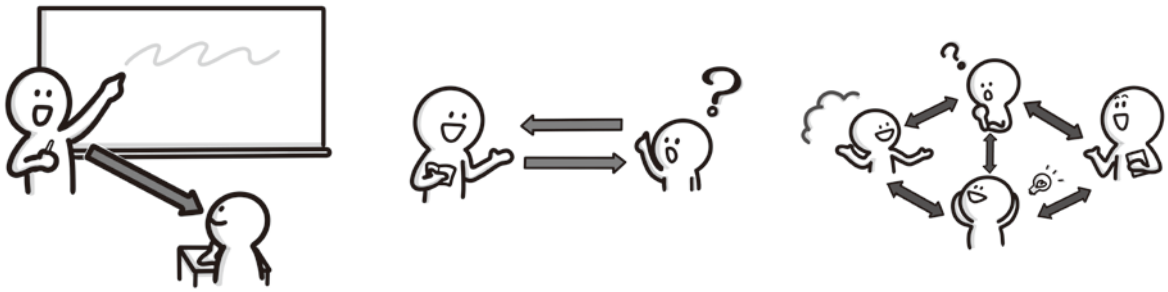


Figure 1: Example of the Use of Program Design Mandala
*Time allocation can be changed freely depending on the program.



One-way　　Two-way　　Multi-way

By creating a program using the Program Design Mandala and incorporating not only unidirectional but also bi- and omnidirectional communication, places of mutual learning can become more dynamic.

One-way communication is a type of communication which we often see in classrooms; teacher deliver message to the children.
Two-way communication is the exchange of communication between the teacher and children via questions and answers.
Multi-way communication is the exchange of communication between the teacher and children and between the children themselves.

For example, a teacher offers a topic for dialogue (One-way) then the children talk freely in small groups about their thoughts and questions they have regarding what the teacher talked about (Multi-way). Afterwards, the groups ask the teacher questions that arose during the chat (Two-way). These methods can lead to multidimensional learning. Here, we will introduce two communication methods (bidirectional and omnidirectional).

Communication Method (1): Small group sharing

This is the time when the children can express their opinions and ask questions freely with others around them for a few minutes right after the topic is presented. If the group is large, only some may be able to speak while others listen, so it is recommended that children make groups of two or three.

Communication Method (2): Entakun (Round-Table) Meeting

In this dialogue method, a round cardboard cutout (diameter of 1 m) is placed on top of the knees of 4–6 children sitting in a circle. This round cardboard cutout is called "Entakun (Rund-Table) Meeting" and has recently been used in many workshops, training sessions, staff meetings, etc.

By facing each other and sitting knee to knee, both physical and psychological distances become closer, which helps create a closer bond in a short period of time.

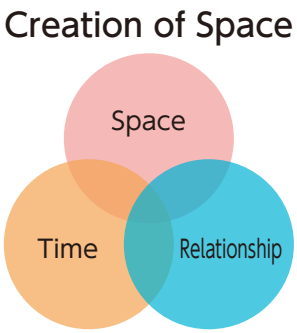
In addition, by placing a craft paper of the same size on the Entakun and writing out what was talked about in words and pictures to make it "visible," children are able to broaden their ideas while having their entire dialogue in front of them.

It is also possible to have the children change seats and put new ideas on other groups' sheets. Entakun is very easy to utilize and uses familiar materials. Because of its round shape, there are no corners, top, or bottom, and the 1 m diameter creates the perfect distance. Entakun gives the children a sense of teamwork as they support it together on their knees, drawing laughter and creating a wonderful atmosphere of unity.

[Reference]
Tamio Nakano, Facilitation Revolution: Technique for Creating a Participatory Space (Iwanami Shinsho active, Iwanami Shoten, 2003)

Skill ② Creation of Space: Careful Preparation and Flexible Operation

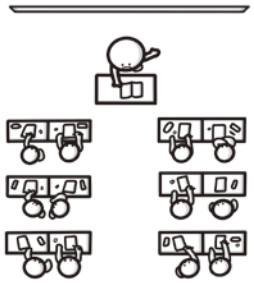
In the field of participatory learning, unexpected happenings are unavoidable. Teachers are required to respond flexibly to the situations which children are placed in. However, this flexibility will only be possible with sufficient preparedness. This means that "careful preparation and flexible operation" are necessary. In this section, we will introduce how to design "space," "relationship," and "time" necessary for preparing places of mutual learning.

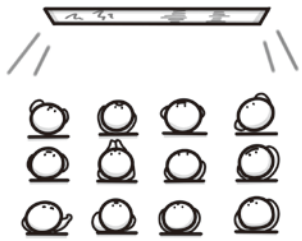
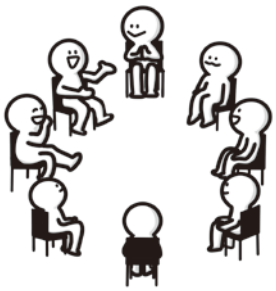
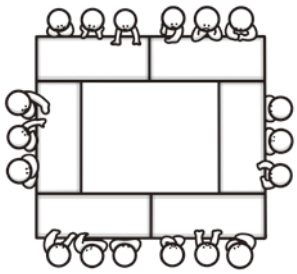
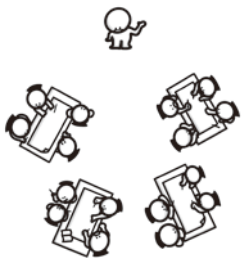


Designing a Space

When designing a space, the layout of chairs and tables is significant. Using the examples below as reference, choose a placement appropriate to the content of the program or the kind of space you want to create, and don't hesitate to change the placement even if you are in the middle of the program. Changes in layout create changes in mood during the program. Sometimes, it is also recommended to have the children take off their shoes and sit on the floor during class or workshop. It can help children feel relaxed and get closer to each other. If there is a gymnasium or a multipurpose room where chairs and tables can be moved freely, using them is also an option. Chairs and tables can be rearranged quickly with the help of the children. It will make a change of pace for them and make them feel strongly that they are taking part in the program.

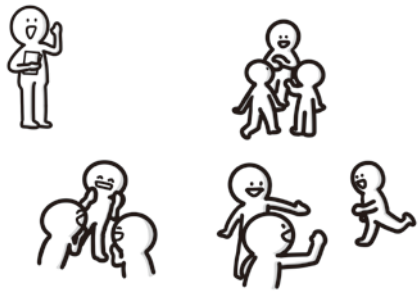
Table 3: Seat Layout and Its Characteristics

Layout	Characteristics
	**Classroom style** Many children feel comfortable with this familiar arrangement. However, they can't see each other's faces. Example: when providing topics

Layout	Characteristics
	**Theater style** Classroom style without desks. Students focus on the person standing in front, but surprisingly, their relationship with neighbors becomes weak. Example: when providing topics
	Fan-shape (semicircle) style Compared with the theater type, everyone is more cohesive. Example: when providing topics
	**Circle style** Everyone is at the same distance from the center, and there is no beginning or end. Attitude varies depending on the size of the circle and the spacing between individuals. Example: dialogue with the whole class, activities which involve movement, etc.
	**Square-shape style** Characteristics of the shape itself are strong; the facing sides tend to have opposing relationships. Their attitude varies greatly depending on the position they sit in. Example: when providing topics and discussion among the entire group.
	**Island style** A common arrangement for group work. Children focus on the work being done at the table and pay less attention to the person standing in front. Example: group work, etc.

In addition to the table layout, giving consideration to the classroom temperature, air conditioning, lighting, displays, and music will allow you to design a comfortable space for the children and a place where they can concentrate on their activities.

Designing Relationships



You may also deliberately consider whether or not to change the composition of groups during a class or workshop. Changing the composition of groups allows the children to be exposed to a variety of opinions and interact with more participants. On the other hand, keeping the same groups deepens the relationship among the participants of the same group and encourages a deeper dialogue. You can design relationships in line with the objective of a workshop, understanding the advantages of each case. The group size described in the following chapter is also an important element in the relationship design.

In cases when most of the children will be meeting for the first time, try to gather as much information about the children's knowledge, gender, age, and motive for participation. The information you gathered will be needed when designing a program to check whether the program is appropriate for the children, if any particular program should be added, or what questions are suitable. At first, children tend to be shy around others of different age and gender. Based on the information gathered beforehand, arrange the groups with consideration of the children's relationships and balance of age and gender.

Furthermore, you can set out "ground rules" (such as not criticizing but enjoying differences, talking briefly, and not interrupting conversations) as a common directive of the program for teachers and children and state it at the beginning of class or display it in the classroom. This kind of support is also important in helping build a comfortable relationship between the teacher and children, as well as among the children.

Time design (see Program Design Mandala)

Programs are carried out in a limited amount of time, so be sure to confirm in advance that you have enough time for each program. When implementing a program, sometimes, you have extra time, and sometimes, you may not have enough. For this reason, decide and summarize in advance what you want to value and convey. By doing this, you can avoid the program from being bland, and you will be able to convey the most important messages of the program without worrying about time. In order to avoid running out of time, it is better to have a little bit of extra time as a buffer.

In addition, it will be reassuring to have some options, such as considering the possibility of increasing students' work where you want to place particular emphasis. By designing a program with consideration for various situations, you will have the flexibility to respond accordingly.

Be sure to include break times between programs according to the children's age. Children can remain focused for only a limited amount of time. Break time is not only a time for children to relax but also a valuable time for teachers to check the progress. You can consider making changes to the program as necessary after the break, and if there is a child you want to check up on, you can talk to him/her during break times to find out how he/she is doing.

[Reference]
Tamio Nakano, Facilitation Revolution: Technique for Creating a Participatory Space (Iwanami Shinsho active, Iwanami Shoten, 2003)
Tamio Nakano, Masahiro Mori, Mariko Suzuki, Takeshi Tomioka, and Nami Oeda, Facilitation: Skills and Mental Learning from Practice (Iwaba Shoten, 2009)

Preparation

Skill ③ Group Size: Effective Forming of Groups

In places of mutual learning, children often work in groups. If each group has 10 min for discussion, each person can speak for 2 min in a five-person group. In a group of two people, each member has 5 min to talk, which is much longer than those in a five-person group. Therefore, groups of 4–5 people may be more appropriate for exchanging a variety of opinions and groups of 2–3 people for a more in-depth communication. You can change group sizes according to the intention and purpose of the program.

However, children don't always have to work in groups. It is also effective to have time for individual thinking or class discussion. Table 4 presents the group sizes and their effects.

Table 4: Group Size and Its Effects

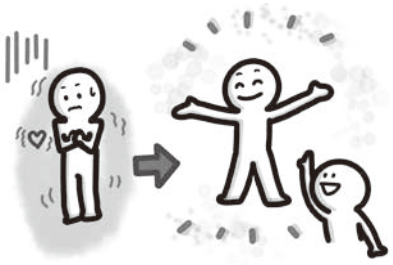
Group Size	Effects
One person (individual)	By confronting individual issues, a child can think about his/her next actions in more details. Even when working in a group, it is important to have time for oneself, a time when the child can think to him/herself and write out his/her thoughts.
Two people	Children can have the opportunity to closely listen to and talk about their thoughts in pairs. It is also effective to observe the status of the dialogue and to change the pairs during the session.

Group Size	Effects
Three people	As the saying goes, “two heads are better than one” (in Japanese, “three heads are better than two”). Three is the minimum number to make an intimate and close group, but at the same time, it allows for more interaction and synergy.
Four people	Two pairs make a group of four, so it’s the perfect size for changing the situation. It is also a good number for having knee-to-knee conversations. A group of this size not only allows children to feel comfortable but also creates diversity.
Entire class	Students can experience a sense of solidarity and dynamism of the entire group (class). All the children can have the same experience together, so information can be shared at once.

[Reference]
Tamio Nakano, Facilitation Revolution: Technique for Creating a Participatory Space (Iwanami Shinsho active, Iwanami Shoten, 2003)

Class

Skill ④ Icebreaker Activities: Easing Children's Tensions



Children get nervous when they meet for the first time. Even if they spend time in the same space at school on a daily basis, they may not know each other very well. Icebreakers are opportunities that break the ice (relieve tension) among children and build up excitement for the activities that follow. Even with children who see each other every day, icebreakers will help shift the children's focus on the class or workshop.

Please follow the points below to break the ice effectively.

Be careful not to take too much time

Icebreaker activity is an introduction to help the rest of the program run smoothly. Keep it within 10%–20% of the total program time.

Be careful not to go too far

There is no need for extreme icebreakers. If you give too much priority to winning and losing, children may get too excited, and it can lead to fights. This defeats the purpose of the activity. Make sure the children are able to transition smoothly to the next activity.

Icebreakers can be divided into two types: children-to-children or children-to-teacher. Here, we will introduce icebreaker activities that can be enjoyed even by children who have already developed relationships.

Breaking the ice among children

1. Introduction of "Nice to Meet You"

This is an activity in which children introduce something about themselves that others do not know. It can also be effective when done in a class that gets along well.

Target grades: third to sixth grade

Time required: approximately 3 min

Appropriate number of children: a group of 2–3

(1) Divide the class into groups of two or three students.
(2) On the teacher's cue, the children start introducing themselves to the group. The presenter will begin by saying, "nice to meet you, I am (their name)" and continue on to tell the other students something about themselves that they think the others don't know (hobbies, favorite food, etc.). They have to continue until they are able to tell a fact that the others didn't know.
(3) Once they're able to do so, it is the next student's turn, and the process is repeated.

2. Yo-kai (Monster) Scissors-Paper-Rock

This is an activity in which students walk around the classroom and use their hands (scissors-paper-rock) and heads (calculations).
Target grades: first to fourth grade
Time required: approximately 5 min (appropriate repetitions: 3–5 times)
Appropriate number of participants: an even number is preferred

(1) Children walk freely around the classroom.
(2) When the teacher says "here comes the monster," all the children pair up with the person closest to them.
(3) The pairs then call out "three, two, one, show," and each child holds up a number with their fingers using one or both hands.
(4) The each child have to count the number of fingers in total, and the first one in the pair to say the correct answer out loud wins.

Breaking the ice between the children and teacher

1. Instruction jump

This is an activity in which the teacher shouts "back," "forward," "right," and "left," and the students must jump in the instructed direction (or in the opposite direction). Because this requires movement, it is preferred to be done in a large space, whether it be indoors or outdoors.

Target grades: first to sixth grade
Time required: approximately 5 min (appropriate repetitions: 3–5 times)

Appropriate number: if indoors, the number of children suitable for the space so that they can move around without bumping into each other

(1) The teacher shouts the four directions: back, forward, right, and left.
(2) The children move (jump) as they say the direction out loud. (Example: say “forward, forward, back, right” as they jump in that direction)
(3) It is possible to increase the difficulty by saying “in reverse” before instructing the directions. The students must then jump in the opposite direction of the instruction.

2. UFO

This is an activity in which students focus on the movement of the teacher and clap their hands together.
Target grades: first to sixth grade
Time required: approximately 3 min
Appropriate number: none in particular

(1) The teacher turns sideways to the right and raises his/her arms in front of him/her to shoulder height.
(2) The teacher keeps his/her right arm in place and moves his/her left arm up and down (keeping it outstretched). The children clap their hands only when both the teacher’s hands overlap.
(3) The game gets more exciting when the teacher makes a feint, such as stopping the hand before they overlap.

Class

Skill ⑤ Question Design: Stimulating Dialogue

"Questions" and "issues" presented by the teacher play significant roles in places of mutual learning. For example, let's say the teacher asks the children, "what should we do to prevent climate change?" If the subject or condition of the question is unclear, the answers of the children will vary. One may come up with suggestions on what they can do on their own, whereas others may give ideas of what the school or community can do. Therefore, depending on the subject of the question and the way in which the issue is presented, there may be an active dialogue on the spot, or it may be met with silence.

There are two types of "questions": closed questions and open questions. Closed questions are those that can be answered primarily by "yes or no" or "A or B." For example, "did you eat breakfast?" and "do you agree with A or B?" are closed questions. This type of question is asked when introducing a program or to check the level of understanding of the children.

Open questions are those to which children can share their thoughts on and feelings about the "questions" and "issues" freely. For example, "why did you think so about ...?" and "let's think about it in the position of..." are open questions. They are used primarily to explore the topic or to stimulate the freedom of thinking. Also, open questions are easier to design when 6W2H is incorporated.

Table 5: 6W2H

What	When
Why	Where
Who	How
Whom	How Much

In designing places of mutual learning, we can further energize dialogue by establishing questions that take advantage of the characteristics of open questions.

Interesting questions

If questions are not interesting in the first place, children won't be motivated to take part in the dialogue during group work. Also, the knowledge and background of each child are different; thus, rather than coming up with questions suited for a specific child or asking questions that require considerable knowledge, try to ask questions that interest all children. Keeping in mind the following two elements should help you come up with interesting questions.

(1) The question can be answered by all children regardless of differences in knowledge and experience.
(2) As the children answer questions and complete their assignments, other questions arise, and their curiosity peaks (children will want to research and study these new questions on their own).

You may want to pose questions according to specific answers you would like to receive, but resist this urge and instead ask questions and set assignments that have no obvious single answer. The teacher is responsible for creating new ideas and values with the children. The time to tackle questions and assignments that have no set answers is a good opportunity for children to comfortably communicate their own thoughts. Activities conducted based on leading questions may appear ideal for group activities, but caution should be exercised because this may not deepen or expand the dialogue. This is because the group of children may work towards getting answers that would please the teacher.

Also, when exchanging opinions on questions and issues, instructing the children to stick to the following four principles of brainstorming can make them feel that it is a place where they can speak freely, promoting active dialogue.

(1) Do not criticize opinions of others
(2) Speak freely
(3) Try to speak a lot and don't worry about it needing to be an excellent opinion
(4) Connect various opinions

[Examples of interesting questions and issues]

Example 1:

What can we do to make our city sustainable (to be able to continue living in the future)?

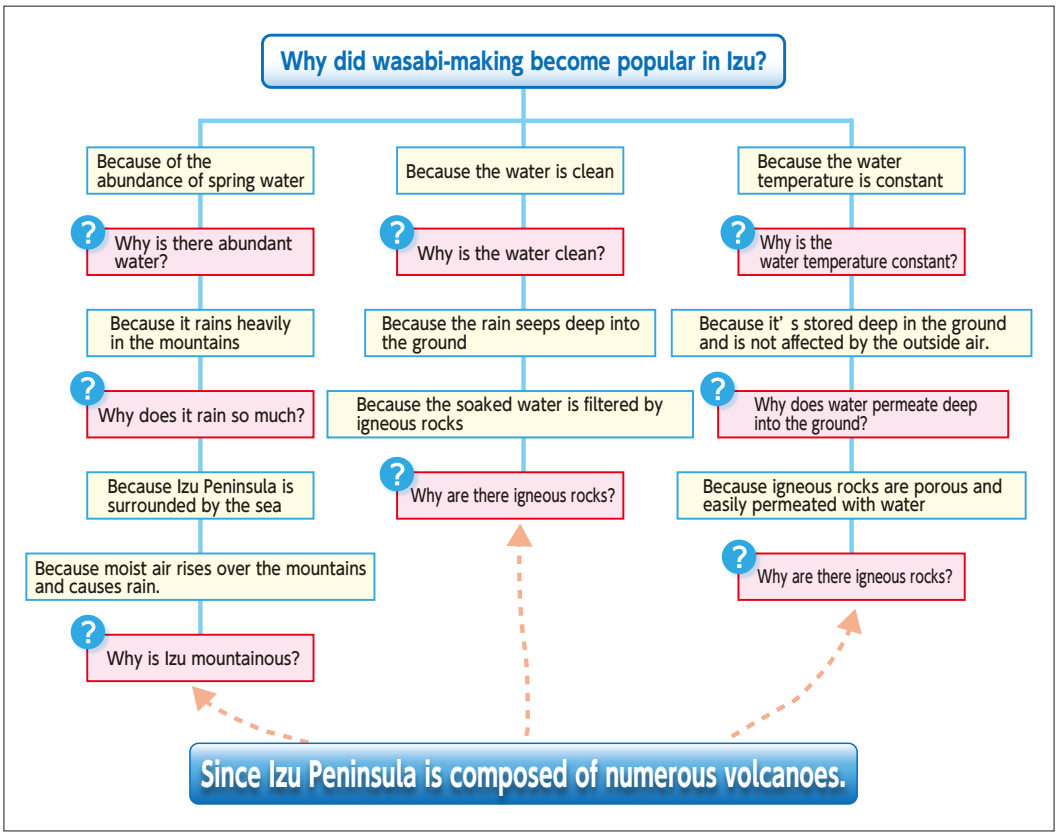
For example, children can look for unsustainable factors by exploring their city or through group work. Then, the children can try to come up with solutions or think of what they can do to help and take action.

Example 2: Why is it bad to not finish your food?

For example, children can look into the degree of leftovers that are occurring around the world and around us by studying surveys on leftovers and visiting garbage disposal sites. Then, students can look back on their actions and think of solutions.

Column: Interesting Questions and Issues Lead to Deeper Learning

The diagram below presents an example of a question asked in an actual class.



Izu in Shizuoka Prefecture is renowned for its high-quality wasabi production. When students begin by asking themselves, “why did wasabi-making become popular in Izu” and pursue the question further, they come to the conclusion that the reason is because Izu is composed of volcanoes. The question will lead the students to understand that Izu wasabi is the blessing of the volcanoes (earth = geo).

Good questions and issues create new questions one after another. By pursuing them, students can understand various connections, which would lead to deeper learning.

Akira Otsuka (member of the Joint Project Committee and former principal of a junior high school)

Class

Skill ⑥ Acceptance: Creating an Environment Where Children Can Speak With Peace of Mind

In places of mutual learning, children give various opinions and ideas. When they share unexpected opinions or present ideas, teachers tend to bring the conversation back on track, but diversity is the real enjoyment of places of mutual learning. Accept and appreciate the children's opinions and recognize that children are expressing themselves. Your reaction to the opinions and ideas expressed by the children has a bigger effect on them than you think.

If a child is criticized or ignored in front of lots of people, he/she would be shocked and dispirited and would become reluctant to speak again afterwards. Even if what was said is beside the point, avoid criticism, accept them with a big heart, and give them credit for expressing their opinions. However, when those opinions are clearly based on incorrect knowledge or information, it is necessary to give advice in a way that helps the children figure it out on their own. In many cases, the children will figure it out by themselves, without any direction from the teacher, through dialogue with friends, and will naturally solve it with deeper thinking. It is important to watch over them go through such development and growth.

The goal of places of mutual learning is to get students to address questions as their own and have it bring about changes in subsequent behaviors. It is important that children explore questions and issues on their own initiative. Children sometimes give exemplary answers because they want to meet the teacher's expectations. In such case, even if it is an exemplary answer, rather than accept it as is, use open questions to draw out their true thoughts and feelings.

The experience of being accepted helps children feel that it is a place where they can speak with peace of mind. According to the White Paper on Children and Young People published by the Cabinet Office in FY2014, children in Japan have a lower sense of self-affirmation than children in other countries and are less motivated to tackle issues they feel

that they may not be able to resolve. This could be because they are always required to have the right answers and are given fewer opportunities to express their opinions instead of just the correct answers. It is important to accept the various opinions and bring out the good in every child.

Accepting their opinions and addressing the question in depth will lead to deeper learning among children. Rather than confronting children, it is important to share various thoughts and ideas between different generations. Let's design enjoyable places of mutual learning where children and teachers can think together for the future, a topic that has more than one correct answer.

[Reference]
Cabinet Office, White Paper on Children and Youth 2014 (Nippon Printing, 2014)

Skill ⑦ Methods to Convey Ideas: Brief and Simple Presentations

The speaker tends to assume that the listener understood what he/she said. However, what is important is not whether or not you have said it but whether or not they have understood it. In order to convey one's message to others, this section will introduce how to communicate effectively in classes and workshops.

Be careful not to talk too much

The main players in a places of mutual learning are the children, not the teacher. If the teacher dominates the conversation, children will feel less motivated to participate actively. There is a saying, "KISS your presentation." KISS is the abbreviation for "Keep It Short and Simple." The phrase means presentations should be kept short and simple. Children can only process a limited amount of information at a time. The teacher should try to keep his/her speaking time to a minimum, considering the time available.

Display the objectives and time schedule of the class

Students will remember the class objectives and time schedule when they are told in class but will forget about them over time. Display the class objectives and time schedule in the classroom where the children can see. By doing so, they can check them at their own timing.

Ways to be easily understood

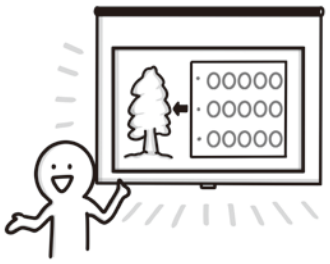
Visualization of words is very important in promoting the children's understanding. Try expressing the things you are talking about in a manner that is easy for children to absorb. There are many ways to transmit information, such as simple verbal communication, power point presentations, writing on a blackboard, or the KP method (picture storytelling presentation), but each method has its own advantages and disadvantages. Employ the method that suits the occasion. Also, the following precautions should be taken when using slides as a presentation technique.

Easy-to-read texts

The setting depends on the size of the classroom, but make sure to use a size, color, and font which enable children sitting farthest from the screen to easily read the text. Use furigana suited for the age of the audience when needed.

Easy-to-understand slides

Keep the sentences short and simple so that children can read the slide within the time it is being shown. It is effective to use figures and images in addition to text.



How to give instructions for group work

First, give a brief overview of the group work and then the steps. If you give them the general outline of the goal (e.g., each group has to give a 3-min presentation in 20-min time), the groups can work more effectively.

Evaluation and Improvement

Skill ⑧ Reflection and Sharing: Valuable Time to Deepen Learning

There are two phases in reflection: personal reflection and group sharing.

Having a one-on-one dialogue with oneself is reflection. Through this process, children can introspect and may realize something they were never aware of before.

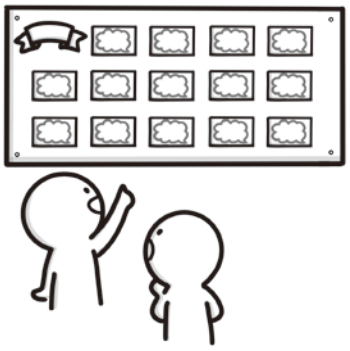
The sharing of what the children reflected on among few others is a way of sharing. Sharing allows children to spend a valuable time deepening their learning by recognizing feelings that they couldn't translate into words by listening to others and expressing their own reflection.

Reflection and sharing have special meanings in places of mutual learning. It is a time for children to reflect on previous activities; think about "what happened?," "what did I think?," "why did I think so?," and "what do I think of doing from now on?"; and check on the progress and growth of their own thoughts and those of their friends.

Reflection and sharing can be facilitated by incorporating the following methods.

<u>Posting reactions or questions written by children</u>

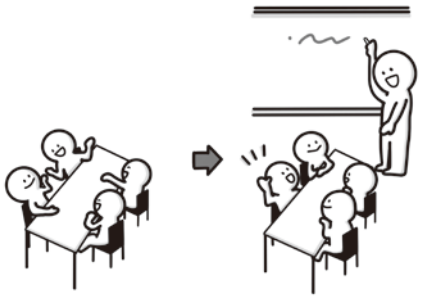
Children don't need to speak up, so they feel less stressed to express their thoughts and questions. They can also see other children's questions and find out that others had the same questions as well.



<u>Have children discuss their reactions and questions in small groups and then raise their hands</u>

This allows children to sort out and confirm their opinions and questions in a group first. Sharing in a small group beforehand makes it easier for them to raise their hands when discussing as a class.

Classes and workshops are not the only time to reflect. For example, as time passes (e.g., the following day, after lunch), a variety of experiences may link together and deepen their learning. For this reason, teachers should continue asking children about the topic even after the class or workshop.



Skill ⑨ Feedback: To Improve the Lessons

In order to improve classes and workshops, it is also important be evaluated by others (get feedback) in addition to self-evaluation. Set a feedback time to check the evaluation and points of improvement after every class or workshop.

Feedback isn't for grading the quality of a class or workshop. Feedback is like a mirror. It provides you an opportunity to understand how others see you. When you have more mirrors, you get to see yourself from different aspects. This will allow you to improve your classes and workshops more effectively.

In this section, we will introduce effective methods of feedback for collecting data for growth.

Collect objective information

You can start by collecting objective information. The words of children and their parents are also important information. For example, impressions and questions from children gathered in Skills 8 "reflecting" and "sharing" are very beneficial. A questionnaire may be given to participants at workshops to help teachers evaluate and improve the program. Use objective information like these as feedback.

Feedback from other teachers

Steps in obtaining feedback from other teachers are as follows: (1) share information, (2) have each teacher make remarks on points he/she noticed, and (3) verify points to be improved from the next time onwards. When asking other teachers to make remarks in (2), it is effective to start asking teachers with less experience as they can give you a fresh point of view. Teachers can give their remarks on the overall workshop or class, or they can freely deliver remarks on different sections of the program. For a class or workshop that continues over a few days, feedback can be provided on a daily basis to help improve the next day's program.

Tips on providing feedback

Teachers may feel that feedback is the only way to improve, but this is not necessarily the case. By including the prefix “if it were me...” in your feedback, the recipient can have an opportunity to stop and think.

Recognize and compliment good points of their work in the feedback, and then propose improvements using the said phrase. In feedback, those who give feedback tend to worry that he/she may hurt the person, and those who ask for feedback tend to worry that they may get hurt by what others say. However, this tendency can be prevented through practice.

Skill ⑩ Use of Tools: Seven Tools for Implementing Facilitation

In this section, we will introduce seven tools often used by the instructors of environmental education. Tools can be added or changed according to the needs of a class or workshop.

(1) Progress Table

A progress table is used for time management. It can be useful to check if the program is progressing ahead of schedule or falling behind and to finely adjust the time spent on submitting feedback and doing Q&A.

(2) Stopwatch (timer)

A stopwatch (timer) is an essential tool for individual or group presentations in which time should be managed. One with a clock function is recommended.

(3) Whistle or bell

This tool is used to signal a start or end of time. Whistles that make funny sounds, such as duck noises, are recommended as they help participants relax. Some people use bear bells and Tibetan bells.

(4) Poster paper or paper

These are used in reflection and sharing. Paper can also be cut to suit the activity. It is ok to use scrap papers.

(5) Marker pens

Washable markers of various colors are practical. Permanent markers may stain the tables. When preparing for the workshop, check that all markers work well, and prepare ink refills just in case.

(6) Sticky notes

The size of the sticky notes should suit the writing tools used. When choosing the size, take into account how long a sentence would be written down and the size of the pen tip.

(7) Magnets

This is used to put the papers up on a blackboard or a white board. Use magnets of different shapes to suit your activity, such as a 2- to 3-cm round magnet or a rod-shaped magnet.

Conclusion: For a Better Future

The places of mutual learning that we have cultivated through environmental education place value on deepening children's learning through dialogue with each other. At first, children may not know what to say or may be confused.

However, as they start to get accustomed to places of mutual learning, they find joy in freely expressing their own opinions and thoughts as well as discovering and creating things together with others. The teachers will also become aware of the importance of places of mutual learning.

So, what can we do to get closer to these ideal places of mutual learning?

It is important to continuously improve the quality of classes and workshops by following the PDCA (Plan-Do-Check-Act) cycle and acquire experience.

We live in an unsustainable society with multiple issues around the world, from environmental issues, such as climate change and deforestation, to war, poverty, hunger, and educational inequality.

In 2015, Sustainable Development Goals (SDGs) were adopted by the United Nations as a goal the international community should aim to achieve. In response to this, there has been a great movement in recent years to transform the world and to realize a society in which "no one is left behind." It is becoming more important for all stakeholders living on earth to co-create a sustainable society from a multilateral viewpoint through dialogue.

The facilitator of and key to this dialogue are the places of mutual learning.

Similar to how interesting questions have many answers, there may be more than just one method for facilitation. This guidebook introduced the 10 facilitation skills, and reading this again and again and continuing to learn broaden the possibilities.

Together, let's design "places of mutual learning" for a better future.

Designing for places of mutual learning
Ten Facilitation Skills Learned from Environment Education

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