

To Enrich Children's Experiences: The Introduction of Devices for Improving the Quality of Playgrounds



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Preface

The aim of making this leaflet is to enhance children's education through the environment. Playgrounds are environments that provide children with various experiences that are necessary for early childhood.

In the spring of 2017, the University of Tokyo's Center for Early Childhood Development, Education, and Policy Research secured the cooperation of 1740 preschools to carry out Japan's first large-scale questionnaire survey of the actual situations of playgrounds. We want to share the results, so that more preschools can put them into practice.

This leaflet has been prepared as a helpful tool for reflecting on the quality of children's experiences on playgrounds from a variety of viewpoints and indicators. Needless to say, the areas for playgrounds, whether there is a playground or not, their locations, trees and large play equipment, education curricula and general plans, and teachers' involvement with children have a great influence on children's experiences. Some preschools have small playgrounds, while others use substitute places in their neighborhoods as playgrounds. Combining the ideas of staff members to improve the current situations and to facilitate the "originality of our preschool" could make children's outdoor experiences of play and life more diverse, deeper, and richer. We hope that consulting and sharing these results and cases will be a useful first step.

Before devising or changing playgrounds, we must engage in dialogues and cooperate with all staff members, under the leadership of their principals or head teachers. It is not until all staff members come to share the value or meaning of a playground that it is possible to reflect on it. It is also necessary to carry out long-term plans related to playgrounds. As such, we can see these efforts as a chance for all staff members to join together to learn about the effects of playgrounds. By experiencing education and childcare through daily play and living, making good use of nature in all four seasons, considering the geographical features indigenous to the school, and its local culture, children can accumulate experiences that cultivate a sound body and mind, both of which are necessary for them now and in the future. Children will cherish the memories of these experiences all their lives, which will remind them of their early childhood. We all would be grateful if this leaflet is used for various purposes, such as serving as the foundation of a workshop.

January 2018

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Tool guide of 7 steps from 6 viewpoints for improving the quality of playgrounds

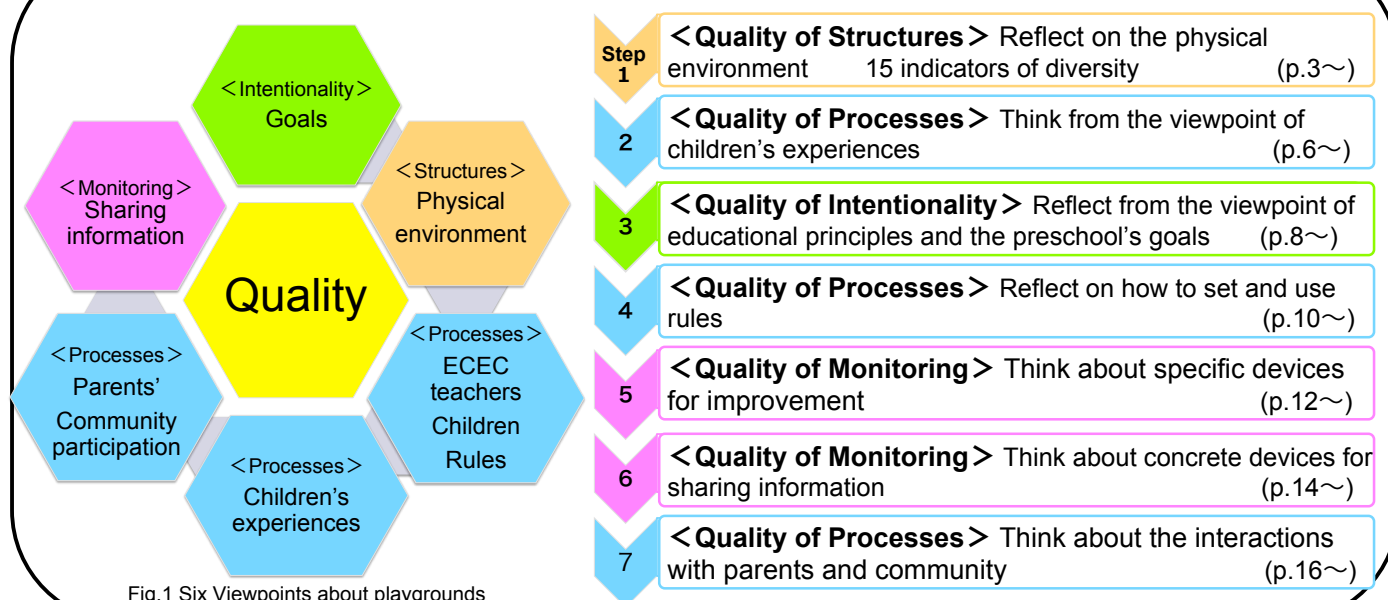


Fig.1 Six Viewpoints about playgrounds

Beginning with the next page, you can learn these seven steps in order, or you can begin with whichever step you are interested in.

For more information, please visit Cedep HP. You can read the results slide here:
http://www.cedep.p.u-tokyo.ac.jp/project_report/symposiumseminar/sympo_170806/

The University of Tokyo's *Bulletin of the Graduate School of Education*, Volume 57 (March 2018) includes a portion of the results, including Japanese trends in research on outdoor environments and international indicators of outdoor environments.

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Step 1: Reflect on the Physical Environment

1

**What kind of outdoor environment is needed?
Let's think about it based on indicators of diversity in outdoor environments.**

Speaking of playgrounds' physical environments, there are regulations in place for their dimensions, but not their environment composition. "The Guidelines for Improvement of Kindergarten Facilities," by the Ministry of Education, Culture, Sports, Science, and Technology, features an example of a desirable outdoor environment. Based on "these guidelines, we have created "Indicators of Diversity in Outdoor Environments," composed of 15 categories. These can be used as a scale for reflecting on playgrounds' physical environments. We take into consideration the devices used for creating environments in the preschools surveyed.

15 categories of The Indicators of Diversity in Outdoor Environments

- <Environments where children interact with and enjoy nature >
 - 1) Places where children play in the sand and the mud
 - 2) Places where children play with water
 - 3) Vegetable gardens and flowerbeds
 - 4) Lawns and other grassy areas
 - 5) Trees and vines
 - 6) Animals
- <Environments where children enjoy exercising >
 - 7) Miniature hills and slopes
 - 8) Play equipment
 - 9) Open spaces
- <Environments where children expand their ideas freely and devise ways of realizing them >
 - 10) Tools and materials
- <Environments for rest and moderate activities >
 - 11) Places for rest and moderate activities
- <Environments that support activities in the whole playground >
 - 12) Shade
 - 13) Connections between playgrounds and buildings
 - 14) Overall layout
- <Environments for interactions with parents and community members >
 - 15) Places for interaction with parents and community members



We noted these tendencies in our investigation.

Preschools that have **diverse** physical environments



- The answers about outdoor environment referred to them as **"enough for children's activities," "satisfied," or "slightly satisfied."**
- In respondents' free descriptions about their trials, **many words about physical environment were used, and they are specific.**
- **Children can have a variety of experiences** (see Step 2)

Making diverse environments is recommended for enriching children's experiences.

What kinds of physical environments does your preschool have? Check the boxes below.

Environment where children interact with and enjoy nature

1. Places where children play in the sand and mud

- No special place is provided for the play, but children are free to use sand and mud and to dig.
- A special place is provided for play in the mud.
- A special place is provided for play in the sand.
- There are flowers children are allowed to pick near the place for sand and mud play.
- There are many kinds of creatures living in the ground.



The sand play contained plenty of sand



Using a well pump and watercourse together

2. Places where children play with water

- There is a water place near the area for children to play with water, or children bring water there using tools.
- There is a watercourse and a pond.
 - Children are allowed to get in and play.
 - The environment is comfortable for creatures.
- There is a tank for rainwater.
- You leave puddles for play.



Observing creatures at the waterfront biotope



Rainwater is also a valuable plaything.

3. Vegetable gardens and flowerbeds

- You don't have a vegetable garden in the playground, but there is one in our neighborhood.
- You cultivate some vegetables in planters.
- You have a vegetable garden in the playground.
 - The vegetable garden is located in where children often do activities, so it is conspicuous.
- You grow flowers in planters.
- There are flowerbeds in the playground.
 - The flowerbeds are located where children are, so they are conspicuous.



Children taking care of plants.



In front of classrooms, so that it is conspicuous

4. Lawns and the grass

- Lawn area is provided.
- Weeds remain in corners of the playground.
- Weed area is intentionally provided.



Children are playing in a squatting position on the tender grass.



The grass is left to grow in the corner.

Environments where children interact with and enjoy nature

5. Trees and vines

- ❑ There are tall and medium-sized trees.
- ❑ There are low trees and bushes that are about as tall as the children.
- ❑ There are many kinds of leaves, flowers, and fruits.
- ❑ There is a fruit tree.
- ❑ There is a change of the scene and scent throughout the year.
- ❑ Some play equipment makes use of trees, such as a rope swing or a tree house.
- ❑ Fallen leaves are left on the ground.
- ❑ Trees and bushes make green walls as a sunscreen or a thermostat in the summer.
- ❑ You let vines cover fences or provide a play area surrounded by fences.



Multicolored plants of various heights are planted.



Enjoying a high tree on the tree house



Fallen leaves are ideal playthings.



Cool in summer in a house of vines

In preschools surveyed, the following plants are planted:

[Tall and medium-sized trees]

Most (70%) of the preschools have planted cherry blossoms, 30~40% of them have acorn-bearing trees, ginkgos, and varieties of maples and camellias. Others: citrus trees, persimmon trees, varieties of fragrant olives, wisterias, dogwoods, zelkovas, Japanese plum trees, crape myrtles, loquat trees, camphor trees, varieties of magnolias, bayberries, Chinese junipers, mulberry trees, chestnut trees, pine trees, apple trees, fig trees, grape vines, pomegranate trees, willow, etc.

[Low trees and bushes]

Around 60% of the preschools have hydrangeas and azaleas. Others: kumquats, blueberries, white enkianthus, pussy willows, bush clovers, forsythias, rose of Sharon, downy cherries, raspberries, euonymus alatus.

Trees provide children with play and shade. It is preferable to plant a variety of plants, as you can see on the map to the right.



6. Animals

- ❑ You keep some animals.
- ❑ A comfortable environment for the animals is provided, with enough space and flowers.



Living with a pony and a miniature pig in liaison with a vet and a health center

The preschools surveyed keep the following animals:

In 50% of the preschools, they keep rabbits, in 30% of them, they keep turtles. Others: small birds, chickens, bantams, ducks, geese, dabbling ducks, goats, different breeds of mice, dogs, cats, etc.



Many kinds of trees are planned for planting all over the playground.

Environments where children enjoy exercising

7. Miniature hills and slopes

- ❑ There are a miniatures hill and a slope.
- ❑ There are many kinds of slopes, with both steep and gentle parts.
- ❑ There is a place for various experiences, combining a tunnel, rope, trees, and flowers.



A miniature hill creates many kinds of activities.



There is a Ninja hut at the top of the stone wall



8. Play equipment

- ❑ There is fixed play equipment.
 - ❑ Children experience various movements.
 - ❑ Children take on a challenge, or achieve a feeling of accomplishment.
 - ❑ Children play pretending something.
 - ❑ Children engage in age-appropriate play.
 - ❑ Children devise new ways to play.
 - ❑ It can be used for social play, such as pretend play or tag.
- ❑ There are both movable play equipment and built-up ones.
 - ❑ You move or change play equipment depending on children's activities.



Children experience various movements, such as climbing and hanging.



Staff are making a new play area combining fixed play equipment and bamboo. (Parents are going to join in.)

9. Open spaces

- ❑ You have an open space.
- ❑ You have enough space that is appropriate for children's activities.



Open space enables such activities.



In some preschools, the staff, parents, and children also make new environments. Some equipment is handmade or uses local resources effectively, such as bamboo and lumber.



There is a plaything that former students made.

Environments where children expand their ideas freely and learn to reach goals

10. Tools and materials

- ❑ There are tools and materials that can be used for play.
- ❑ There are various kinds of tools and materials.
- ❑ There are enough tools and materials for children to use as much as they want.
- ❑ They are stored where children can easily get things themselves.



Bottle cases and safety cones are used for play.



A wheelbarrow and a bicycle trailer are also playthings.



An earthenware mortar, a wooden pestle, a funnel, and a colander make play more enjoyable.

The preschools surveyed have the following tools and materials:

In 80% of preschools, they make use of buckets, tubs, and shovels, in 30~40% of them, they use tarpaulins, mats, tires, and branches. Others: cardboard, gutters, bamboo cylinders, board, rope, bottle cases, duckboards, cloth, hammers, and saws.

Environments for rest and moderate activities

11. Spaces for rest and moderate activities

- ❑ There are some places where children can take a rest or do some moderate activities, such as benches, tables, or a deck.
- ❑ They are scattered throughout the playground.



Resting in a hammock



The deck under the trees

Think about the environment for younger children

- ❑ You don't provide a place for the exclusive use, though usage hours are divided.
- ❑ You provide a place for the exclusive use of younger children.
- ❑ There is a playground for the exclusive use of younger children.
 - ❑ Children come and go between the playgrounds for older children and the one for younger ones, to promote their interaction.
- ❑ There is low position environment where younger children can enjoy and relax such as a sandbox, a lawn, flowers, bushes, chairs, tables, small play equipment.



Environments that support activities throughout the playground

12. Shade

- ❑ You provide shade, making use of trees, parasols, tents, and a sunscreen.
- ❑ Shady places at the periphery of the playground.
- ❑ There are some shady places in the center of the playground.
- ❑ Shady places are scattered throughout the playground.



It is cool in the summer, under the sunscreen and trees.

13. Connection of playgrounds and buildings

- ❑ There is a corridor outside where children put on and take off their shoes; it is also used as a hallway.
- ❑ There is a deck, an outside corridor, and a terrace for children's activities between the playground and the school buildings.
- ❑ Children can go directly to the playground from their classrooms.

14. Overall layout

- ❑ Large open space at the center and other environment at periphery.
- ❑ Spaces for activities are scattered throughout the playground.
- ❑ The connection of spaces is deliberate, so that children can tour the playground easily.



(Upper) Relaxing space, a place to enjoy moving, play equipment, etc. Their connection is deliberate.



(Upper) (Right) Different spaces are connected by the path.



The typical location of playgrounds has an open space in the center and play equipment and trees are at periphery. However, the number of preschools where various spaces for activities are scattered throughout the playground is increasing.

Environments for interactions with parents and community members

15. Places for interaction with parents and community members

- ❑ There is a place for interaction with parents and community members, such as benches and a deck.
- ❑ It is a comfortable place such as a garden.
- ❑ The place connects to the indoors, such as a room for parents and community or a lounge, and you can come and go easily.



Interacting on the playground with elderly people from the attached elder care facility



(Upper) (Right) Different spaces are connected by the path.

The following devices are found in the preschools surveyed.

Fire	Places to hide	Playing with snow	Places with roofs	Other
Bonfires, a fireplace, a cooking stove	Providing moderate hiding places, children can make a secret base	Piling snow and riding a sled Playing with snow, an athletic meet in the snow	A <i>piloti</i> A covered walkway with a surrounding playground	A shower, a bird feeder, a road for riding vehicles, illumination, night illumination, mist spraying in the summer



- How about environments that support children's experiences? → Go to Step 2
- How do we use them? → Go to Step 3
- Reflect on it in the context of the goals of childcare and education → Go to Step 4

2 Step 2 Think from the viewpoint of children's experiences

What kind of functions do playgrounds have?

Children's favorite play areas and the reasons

We surveyed 196 children between the ages of 4 and 5.

a. "Because I am the only one who knows it is here,"



b. "Because taggers don't come to the hill,"



c. "Because I can try various things here,"



d. "Because 5-year-olds do that,"



e. "When 3-year-olds are not around, I ride a swing standing up."



- a) Places where children can hide for play
- b) Places that are related to children's past experiences
- c) Places that have diverse and select possibilities
- e) Places where children make their own rules
- f) Places where children can take on a challenge
- g) Places where children can meet their friends
- h) Places where children come to have a wish or a desire
- i) Places that always exist
- j) Places where children can feel dizzy (feeling a tremor of spinning or a sense of falling speed)
- k) Places where there is difference in height

g. "Because I can meet friends from other classes here,"



f. "I'll try it to find out if I can do it."



h. "Because I think it is great to see a real Ninja,"



i. "Because it is there, and I can do various things,"



j. "Because it is fast like zoom,"



k. "Because it has a nice view,"



Children's favorite places have these functions. What about the popular areas in your preschool?



Children comprehend their play areas from these viewpoints.

What children are doing
Comprehending "tree climbing"



Children's viewpoints on "tree climbing"



Children's viewpoints on "bridges"

What children are doing
Comprehending "bridge"



What children are doing
Comprehending "slides"



Children's viewpoints on "slides"



Children's viewpoints on "slopes"

What children are doing
Comprehending "slopes"



Children comprehend their play areas from these viewpoints.

You can have children take some photos and use them at a workshop.



Thinking about the functions of playgrounds from children's viewpoints leads to an understanding of the functions children generate and then nurturing them. It also assures children's active engagement.

How many places in your playground have the following functions?

Give as many places as you can think of to fill the following lists.

Where can you see those children's activities?

- 1-1) Places where children can hide for play
() () ()
- 1-2) Places where children can take a rest
() () ()
- 1-3) Places where children can repeat the same kind of play
() () ()
- 1-4) Places where children can realize their imagination
() () ()
- 1-5) Places where children can watch what other children do
() () ()
- 1-6) Places where children make their own rules
() () ()
- 1-7) Places where children can take on a challenge toward their goals
() () ()
- 1-8) Places where children meet their friends or assemble naturally
() () ()
- 1-9) Places where children can prompt speculation
() () ()
- 1-10) Places where children use all five senses
() () ()

Which does your preschool have?

- 2-1) Places whose land features (hills or slopes) children can make use of for play
() () ()
- 2-2) Places that are always there (fixed play equipment or existing in the same place)
() () ()
- 2-3) Places where children can feel the sense of speed and the feeling of shaking
() () ()
- 2-4) Places where children can be conscious of height differences
() () ()
- 2-5) Places where there are no shielding objects, open spaces
() () ()
- 2-6) Places that are shielded like a den
() () ()
- 2-7) Places that are migratory (children can enjoy moving around places with no dead ends)
() () ()

Example answers :

1-1) Places where children can hide for play

(a tunnel) (a hedge) (a miniature hill), etc.

2-4) Places where children can be conscious of height difference

(a slide) (a swing) (an overhead ladder), etc.

Let's give it a try searching for easy ways for you!



For example, in this preschool, they brushed up their ideas by putting tags on a map of the playground, to find out what children are doing for play and what staff are doing to arrange the environment. This is just one approach.



About the diversity of physical environments of preschools → Go to Step 1

Here are the average numbers of play areas that have each function in the preschools surveyed.

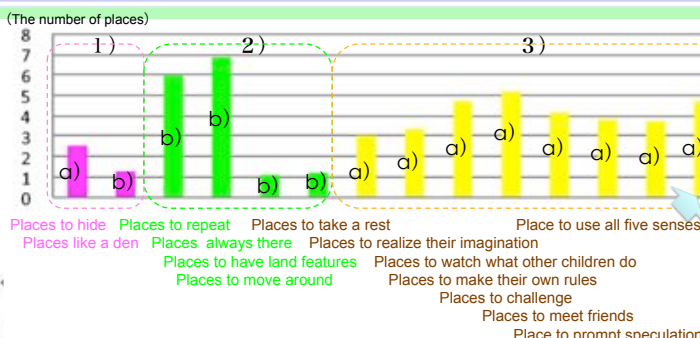


Fig. 2 The average numbers of a) "the functions of play areas confirmed by what children do" and b) "the ones ECEC teachers are conscious of"

- The gap between the play areas where children actually play and the ones that ECEC teachers are conscious of. Speaking of the number of the places where "children can hide for play," the number of those that ECEC teachers are conscious of (b) is smaller than the ones where children are seen to play (a).
- The number of the functions of arranged play areas. ECEC teachers are highly conscious of "places where children can repeat the same kind of play" and "places that are always there," while they aren't so aware of "places whose land features children can make use of" and "places that are migratory."
- ECEC teachers' comprehending what children do. ECEC teachers understand the multiple functions of play areas by watching children playing.

< Example answers > The following answers were seen in the survey.

Hide "complex type play equipment" "trees" "tunnels" "miniature hills, slopes"
 Shield "huts" "complex type play equipment" "tunnels" "trees"
 Repeat "sandboxes" "slides" "whole playgrounds" "iron bars"
 Always existing "iron bars" "sandboxes" "slides" "swings"
 Make use of land features "miniature hills, slopes" "whole playgrounds" "the grass, lawns"
 Play moving around "whole playgrounds" "open spaces"
 "complex type play equipment"
 Take a break "benches" "huts" "sandboxes" "desks for outside"
 Realize children's imagination "sandboxes" "whole playgrounds" "open spaces"
 See other children "sandboxes" "complex type play equipment" "narrow wooden passageways, decks, and terraces"
 Rules "sandboxes" "whole playgrounds" "slides" "swings"
 Challenge "iron bars" "monkey bars" "whole playgrounds" "climbing poles"
 Rendezvous "sandboxes" "whole playgrounds" "hut"
 Imagination "sandboxes" "whole playgrounds" "huts" "complex type play equipment"
 Five senses "sandboxes" "whole playgrounds" "vegetable gardens" "flowerbeds" "trees" etc.



It is also necessary to "set up the functions and the purposes of the playgrounds consciously, not only comprehending what children do."

Grasping the differences in the functions of play areas between the ones children dream of and the ones ECEC teachers are conscious of, and thinking of what kinds of experiences children acquire, leads to higher quality of childcare on playgrounds.

Step 3 Reflect from the viewpoint of educational principles and preschool's goals

What do you think is important for children's experiences on playgrounds?

Number according to your perceived order of importance.

< About the aims of play and activities >

- () Children can feel the **beauty and wonder of nature**
- () Children can build **strength** and acquire **athletic skills**
- () Children acquire the ability to **catch a scent of danger or to deal with it**
- () Children can **try or express something** that they wonder about or want to try
- () Children can acquire a **scientific view** and be conscious of **numbers and letters**
- () Other

< About interactions with people >

- () Children can play **only among children**
- () Children can interact with a **diverse set of people**
- () Children can play **with ECEC teachers**
- () Children can play **alone**
- () Children can play **in small groups**
- () Other

Reviewing the items you regard as important leads to the visualization of the value of each preschool and reflecting on their practice.

All of them are important; however, "the items regarded as relatively important" differ among preschools.

The items regarded as more important in many of the preschools surveyed :

- Children can feel the **beauty and wonder of nature**
- Children can **try or express something** that they wonder about or want to try
- Children can play **only among children**

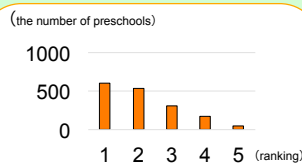


Fig.3 The number of preschools regarding "children can feel beauty and wonder of nature" as important according to the ranking

The items regarded as less important in many of the preschools surveyed :

- Children can acquire a **scientific view** and be conscious of **numbers and letters**
- Children can play **alone**

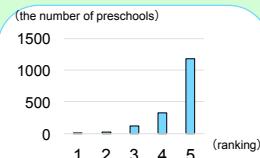


Fig. 4 The number of preschools regarding "children can acquire a scientific view and be conscious of numbers and letters" as important, according to the ranking

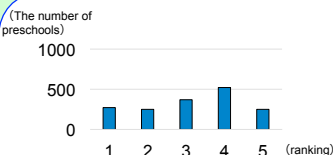


Fig. 5 The number of preschools regarding "children can build strength and acquire athletic skills" as important, according to the ranking

The items where big differences are seen among the preschools surveyed :

- Children can build **strength** and acquire **athletic skills**
- Children acquire the ability to **catch a scent of danger or to deal with it**
- Children can interact with a **diverse set of people**
- Children can play **with ECEC teachers**
- Children can play **in small groups**

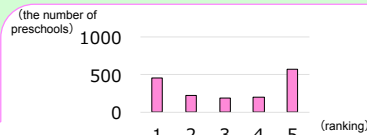


Fig. 6 The number of preschools regarding "children can interact with a diverse set of people" as important, according to the ranking

What is your specific childcare practice like?

How many of the following do you actually do? How important do you think they are?

Looking around to see children playing					
Making opportunities for children to play together					
Making use of the playground to teach an exercise or hold events					
Planning activities that make use of nature					
Making a decision about the children's environment for activities and arranging it					
Doing activities to develop children's athletic skills					
Inviting children into the play ECEC teachers have started					
Giving directions to children to do activities					
Teaching difficult activities					
Others <input type="text"/>					

Use different colors for "implementation" and "important" and check the list.



These results on the differences and the common points were found among the preschools surveyed.

3

The items that many of the preschools surveyed tended to regard as important (The average of “” is high, and it is restricted in distribution)

- Planning activities making use of nature
- Looking around to see children playing
- Making opportunities for children to play together

Only the average of “important” is high

The average of both “implement” and “important” is high

How do they actually differ?



A big difference was seen in the preschools surveyed (showing a wide distribution)

- Teaching difficult activities
- Doing activities to develop children’s athletic skills
- Making use of the playground to teach an exercise or hold events

Ranking high

Ranking low

The preschools ranking 1st “Children can build strength and acquire athletic skill”

The preschools ranking 1st “Children can try or express something that they wonder about or want to try”

Reflect on “what you want to cherish in preschool” and “what you want children to experience” while considering principles and educational goals.

What does it mean, specifically, to reflect on principles and educational goals?

We have collected descriptions of what to cherish or goals to pursue in the answers.

Enjoying nature

In our preschool, playing at a biotope in the playground is highly encouraged, based on the basic principle of “learn about nature, learn from nature.” Based on the concept of making an environment where creatures in this region live independently, we have promoted the improvement of the environment yearly with a long-term perspective, waiting for creatures to settle down naturally, not taking care of them. There is a miniature hill, called “Nohara-en,” where children try to catch grasshoppers and dragonflies. There are also many trees and flowers for all four seasons, as well as killifish and shrimps in the small stream. **As it becomes an ecologically better-balanced environment, the children can enjoy the change of seasons more in familiar play areas.**



Physical strength and interaction with children of many ages

The playground is so large that all the children have enough leeway to play around. We try to encourage children to have cross-age interaction on nice days. There is a park in our neighborhood and we go for walks in all seasons. The complex-type play equipment, completed in 2015, has been a great help toward building the children’s physical strength.



Environments appropriate for age and playing freely without danger

We have a large yard and a large playground, though the number of children is also large, so it can be dangerous when all the children go outside. For this reason, we have divided the yard with play equipment into two parts using planters. One is for babies, and the other is for infants, and we placed age-appropriate fixed play equipment in each area. 3~5-year-olds (infants) use a playground, but it would be dangerous for them to play wherever they like, playing in groups, soccer, jump rope, takeuma, and so on. For that reason, ECEC teachers discuss to arrange each play area to allow children to play freely without danger.

Enjoying nature and knowing dangers

There is a biotope just outside the playground where children enjoy insect collecting, interacting with water creatures, and playing with water. We use it in all seasons, so children learn about the danger of water and the pleasure of playing with it.

Athletic skills and guarding themselves from danger

Children like to play outside, I think it is most necessary in early childhood education to acquire athletic skills, especially the skill of guarding oneself from danger, so we pay a lot of money for outdoor environments. (snip) Moreover, we have planted many kinds of trees, because the idea is to get children interested in trees. The tree called the “Ilex latifolia” is very interesting because you can write letters on the underside of its leaves.

Children expand their imagination freely and try new things

Children are supposed to play safely in the playground without big accidents, but grown-ups have set rules to follow. In particular, we keep trying to gather materials that enable children to use their imagination (creating an environment for children to use tires, logs, cases of bottles, and bath mats in various combinations, and to play with them in many ways).

Cross-age interaction

When all children play outside, children often play with children of many ages. Besides, 3~4-year-olds are seem to imitate 5-year-olds, and 5-year-olds show them how to play. Children play together, stimulating each other, which leads to their growth in mind and body.

Where children can spend time alone

Our playground is large enough for children to run or play soccer as much as they want. However, there are only a few trees and shady spots, so it is difficult for children to play leisurely alone. We would like to get a handle on this .

Interactions with nature and local resources

We place an emphasis on childcare experiences that stimulate five senses inside and outside the preschool. That is why children aged 3 or younger often go outside. Preschool has a limit, so the older they get, the more they go outside the preschool for activities to experience nature. It doubles by promoting interaction with community members. (preparing environments for fireflies, an athletic park, insect catching, riding a sled on the lawn, Tarzan...).

You can see “The originality of your own preschool.” Think about what you would like to do not only about the presence.



About how to use, devices of improvements
→Go to Steps 4, 5

Step 4 Reflect on how to set and use rules

How should we reexamine how to use playgrounds and set rules to expand play and activities in them?

For example, the following uses and rules are imaginable in each environment.

Places for playing with water

<How to use them >

- Children can turn on the water when they need it.
- Talking about environments, for example the association between water and rain
- Observing creatures, talking about biology
- Using puddles for play

<Rules >

- Set up a situation for children to determine how much water they can use, or discuss it with children
- Children can play freely in puddles

Places for playing with sand and mud

<How to use them >

- Children can dig for play
- Children can add water
- Plant or leave some flowers beside it
- Set a platform to place children's creations

<Rules >

- Children are free to dig
- Children can use water
- Children can take in other materials

Trees and flowers

<How to use them >

- Children use fallen leaves, weeds, flowers, and fruits to play with or express something
- Growing plants and flowers with children
- Talking about plants' lives
- Place nameplates before trees and plants

<Rules >

- Discuss with children how many flowers and fruits they can pick, or how much fruit they can eat, and set rules accordingly
- Set up a place to pick up leaves and flowers freely



Children use these in other play areas.

<How to use them >

- Vegetable gardens and flowerbeds: Children eat the harvest for lunch and snack, observe insects, compost vegetable waste and fallen leaves, and use it for the vegetable garden
- Miniature hills and slopes: Introducing materials such as cardboard, boards, and vehicles to play there
- Animals: Children take care of them
- Space for rest: Set up a situation where children, ECEC teachers, and parents gather and have a chat
- For younger children: Select activities when babies and infants go outside at the same time

<Rules >

- Children are free to use tools and materials
- Discuss with children how to use play equipment and generate some rules
- Infants decide what to play when babies play at the same time considering safety



Play and activities are changed according to how to use items and rules even in the same environment.

Who makes the decision of how to use a playground? How?

These trends were noted in the survey.

For the most part, they tend to make a decision having it out with care workers and children.

- ◆ When children want to place what they have made and
 - ◆ When children do what they want to try
- Were reported more than 70%

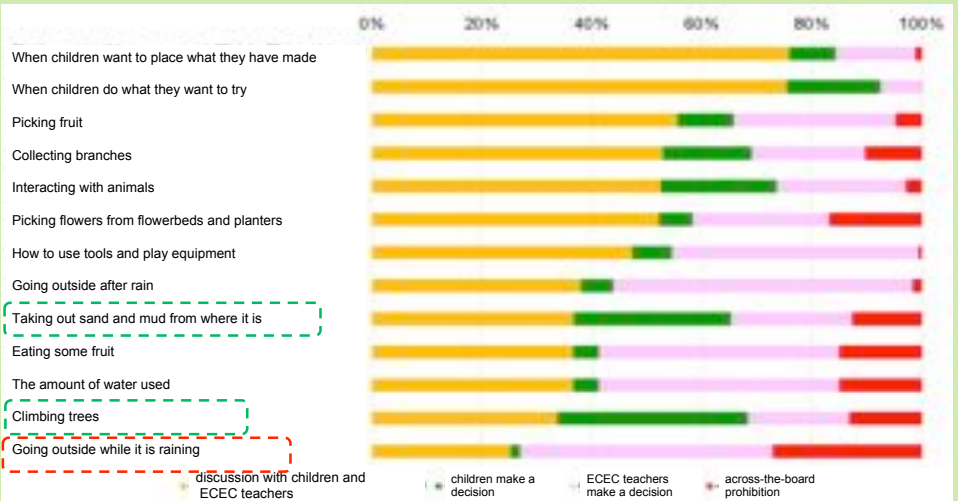


Fig. 7 How to decide activities or rules for a playground (who decides)

The items whose common answer is "children make a decision"


- ◆ Climbing trees
- ◆ Bringing out sand and mud from where it is

The items whose common answer is "across-the-board prohibition"

- ◆ Go outside while it is raining

Who makes the decisions about the following? Fill in the blanks.

4

Ideas 	Who and how to make a decision • Existing rules • Prohibited matters
(Examples)	<ul style="list-style-type: none"> • Forbidden in preschools. • Children make the decision themselves. • Have a meeting in class in each case. • ECEC teachers make a decision and tell it to the children.
• When children want to place what they have made	
• When children do what they want to try	
• Picking fruit	
• Eating fruit (if there is any)	
• Picking flowers from planters and flowerbeds	
• Collecting tree branches	
• Climbing trees (only if there are any)	
• How to use tools and playground equipment	
• Going outside after rain	
• Going outside while it is raining	
• Taking out sand and mud from where it is	
• The amount of water used	
• Interacting with animals (if there are any)	
• Other 1 ()	
• Other 2 ()	

Speaking of when “children make a decision,” here are some examples.

The following devices were reported in the preschools surveyed.

1. Situation when children make a decision

- ◆ After rain, there are puddles here and there in the playground, and children can play with mud there. **It makes the ground bumpy, and land leveling afterwards is difficult. On these days, children think about how to use the playground** and enjoy playing as they like after the rain.
- ◆ Children are **free to put water** in the sandbox to expand their play.
- ◆ Children are **free to use water from a pump and a tap throughout the year**, making balls of mud, playing with mud and water.
- ◆ There are a lot of trees now, we **leave fallen leaves** and play with them as the seasons change.
- ◆ We plant morning glories and marvels of Peru in summer, and children are allowed to pick and play with them freely.

2. Children’s senses and ideas

- ◆ Children often generate their rules for play in play areas, ECEC teachers join them and enjoy the children’s senses and ideas for play.

Look back on the tendency to make a decision about what is undecided, taking the situation of preschool into consideration.



Reviewing “who makes the decision” enables us to reexamine how to use playgrounds.



Principles and educational goals of preschools → Go to Step 3
Sharing among staff, community, and parents → Go to Steps 6, 7

5 Step 5 Think about specific devices for improvement

Review the key points of improvement from three viewpoints.

Key points of improvement (in playgrounds)

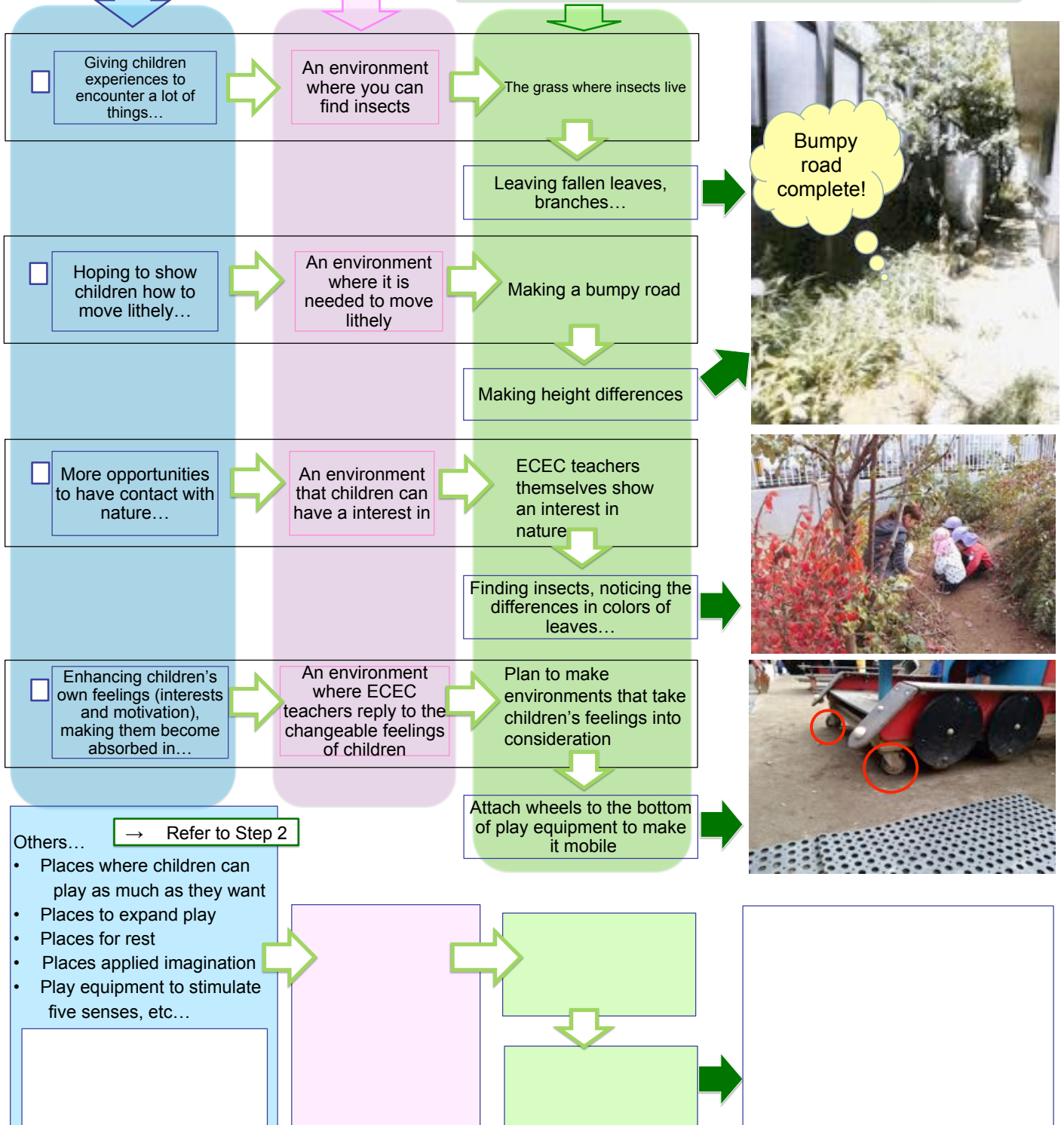
Let's make a plan to improve your preschool. Preschool environments vary widely. The key point of improvement is to start by thinking of making use of the present environment. How about taking the steps below? Step ③ depends on preschools especially. Review your case consulting examples, and check the boxes if they are applicable.



① What would you like children to experience in your preschool?

② What is the needed place like?

③ Think of specific environments to realize the things above.





~A lot of people pass through and gather in the playground.~

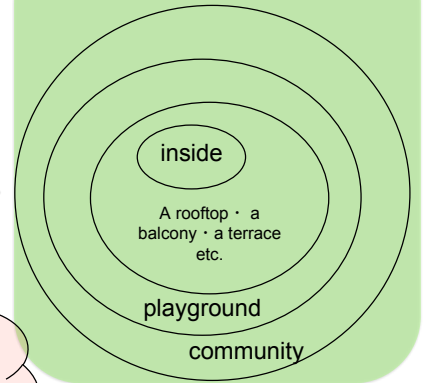


Key points of improvement (spaces other than a playground such as a rooftop and a terrace)

Let's make use of places other than playgrounds. Based on children's feelings or desired experiences, think of places on borders, such as a terrace, besides an improvement of indoors and outdoors. Then, it is important to think of **keeping the holistic balance**, taking other elements of indoors and outdoors into consideration.



Which place is appropriate...?



Give each child more challenging experiences...

Environments where changes can be seen, visible / Environment where an act by someone is visible

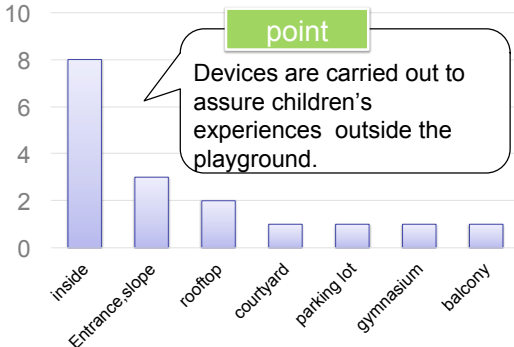
"Challenge"...
 > Spaces where children can get absorbed in something
 > Whether it is a challenge or not depends on the children ("challenge" is a psychological status).
 > Each person has their own challenge, everyone's challenge ...etc.

"Changes can be seen, visible"...
 > It is simple to make.
 "Everyone takes a turn"...
 > Everyone can see it, the place is in plain view
 > More than one person can be engaged ...etc.

Example : using a terrace



(The number of preschools)



point

Devices are carried out to assure children's experiences outside the playground.

① Children can try various movements. They hold onto a rope, lean on it, hang from it, get onto it, sit on it, and so on.

② Because rope transfers minute movements of those holding it, children are influenced by other children, although they are playing alone. They can feel the existence of other children.

Example

Planting seedlings on the rooftop with children.



point

By stretching a rope as a little device, each child interacts with the environment, experiences the properties of things in their own ways, and deepens their conversation and experience with things.

Fig. 8 Places needing improvement surrounded by faculties without playgrounds

Various activities in the community (an extended playground)

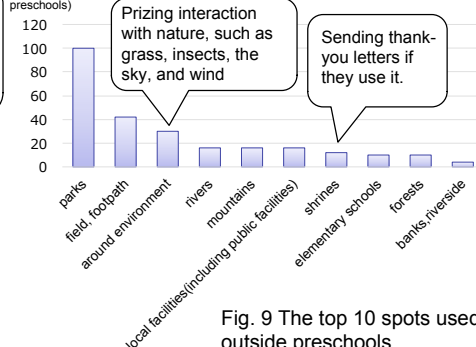


Make use of various places in your community that are filled with many kinds of stimulation that children are moved by. It is expected that children will connect with many kinds of worlds, and that their connections will become wider.

Children stop to see various environmental stimulations, such as letters of "Omikujii" and the doll inside, the speed, the sound, and the vibration of the train, experiencing them with interest.



(The number of preschools)



Prizing interaction with nature, such as grass, insects, the sky, and wind

Sending thank-you letters if they use it.

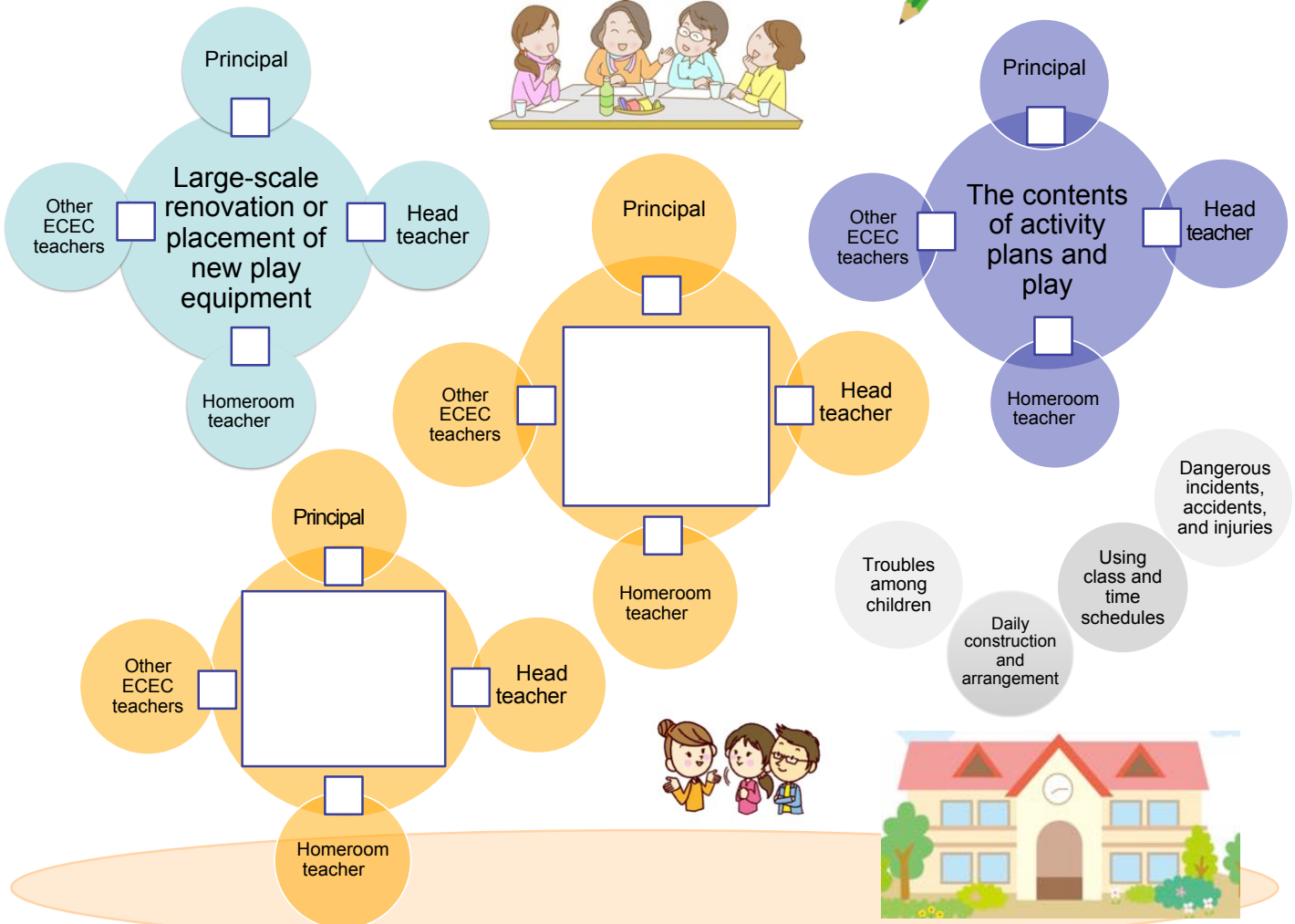


Fig. 9 The top 10 spots used outside preschools

6 Step 6 Think about concrete devices for sharing information

What information do you share? With whom do you share it?

- Check the boxes of the people on the form below with whom you share information.
- Fill in the blanks in the orange circles. Confirm what kind of information to share and with whom in your preschool.



How do you share information?

- What are we going to do to share information?
- What is necessary for sharing information
 - ① Occasions for sharing information,
 - ② Expectations of getting and delivering information,
 - ③ Tools that support sharing information
- Here are various practical examples shown in the survey.

Examples

- Advice from specialists
 - Visiting other preschools
...In some preschools, they visit other preschools with children and spend time there
- etc.



Expectations

Occasions

Tools

Examples

- Staff meetings
 - Workshops
 - Project activities
 - Morning meetings
- etc.



Examples

- Books and magazines
- Hazard maps
- Sticky notes
- A dedicated whiteboard
- File server
- ...sharing photos and episodes
- LINE
- ...making groups such as one for parents, one for teachers, etc.



The relationship between the ratio of sharing information according to posts and outdoor environment

6

- The diversity in outdoor environment is related to who and what communication to share with.
- In the graphs below, as to sharing information about playground (maintenance of playground, an activity plan and play) according to posts, we will show you the survey results of how and who to share information with affects the diversity of playground.

Improvement of playground (renovation and installing of new play equipment)

N=1740, n=1658

point

- Sharing information with “principals” is attempted for the most.
- Sharing information with “other staffs than homeroom teachers” is under 60%.

In preschools where information about improvement of playground is shared among staffs, more diversity outdoor environment has. Especially in preschools where information is shared with including other staffs, outdoor environment is more diversified.

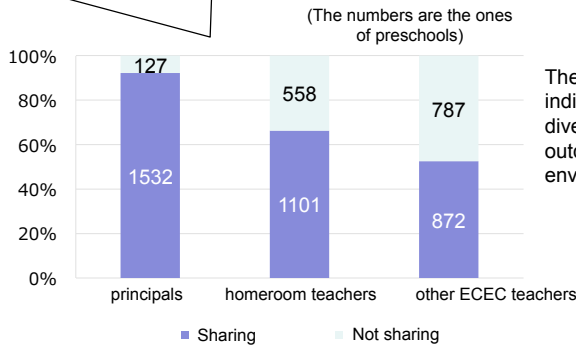
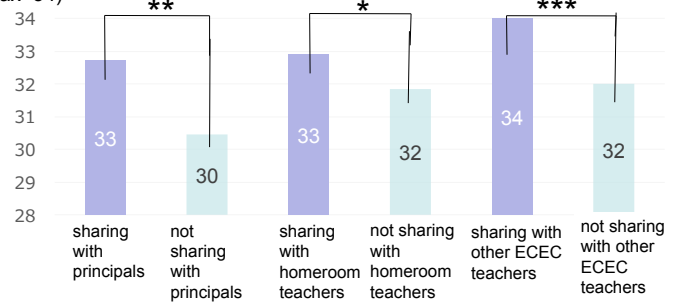


Fig.9 The ratio of sharing information about improvement of playground according to the posts

(Point. Max=54)

The indicators of diversity of outdoor environment



* : p<.05, ** : p<.01, *** : p<.001

Fig.10 The relationship between sharing information about improvement of playground according to the posts and the indicators of diversity of outdoor environment

Activity plans and play

N=1740, n=1658

point

- Sharing information with “homeroom teachers” is attempted for the most.
- Sharing information with “principals” is under 60%.

In preschools where information about activity plans and play also shared with other staffs than homeroom teachers, outdoor environment is more diversified.

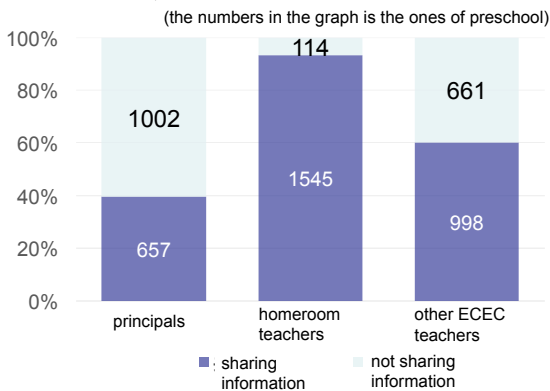
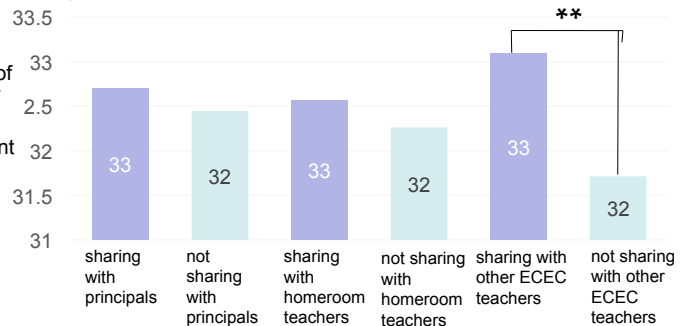


Fig.11 The ratio of sharing information about activity plans and play according to the posts

(Point. Max=54)

The indicators of diversity of outdoor environment



** : p<.01

Fig.12 The relationship between sharing information about activity plans and play according to the posts and the indicators of diversity of outdoor environment

Organizing to support outdoor environments...

A variety of team organizations are in progress at the same time, it helps varied information to connect naturally with each other.



Time management : try to streamline and speed up sharing information in a childcare spot providing an ICT environment, while evaluation is done from the long-term viewpoint.

Examples

“Provide each class with a digital camera and a computer and make it possible to start to work immediately.”

“Share information on computers, or in a meeting with a time limit”

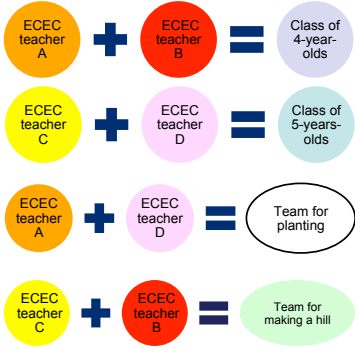
A flexible operations policy : we structure our organization based on children and ECEC teachers’ actions, dismantle the organization or create a new one depending on changes.

Examples

“We have some annual events, though other events are set up flexibly based on children’s development.”

Examples

Team up with another teacher who is not in charge of the same class



ECEC teachers’ independent involvement in environments

Supporting childcare each other based on play areas and what children are doing

Constructing relationship with parents and the community

Streamlining sharing information and business / Long-term evaluation and flexible administration

7 Step 7 Think about interactions with parents and community

How do you interact with parents and community members on the playground or outside of school?

These devices for interacting with parents and community members were seen in preschools surveyed .

< Making places for interaction >

tangible

◆ Places where people gather naturally every day

- ...There is a wooden table and chairs beside the sandbox, where children and parents can have a chat.
- ...In a small log house in the playground, we engage in give-and-take with parents.
- ...By building a deck in the playground, we made an opportunity for children, ECEC teachers, and parents to gather and have a chat.



◆ The places for gatherings and events

- ...On Sundays, the playground is open to parents and community members for free. It is used for having BBQs and so on. / They set this open time for both current students and community members.
- ...providing a space for a flea market held by parents to interact with the community.

< Sharing Information about the playground >

intangible

◆ The daily custom of sharing information

- ...upload the news of the new play equipment or **impressive scenes of children** to the blog
- ...send School Letters about children's play on the playground to the parents, **include a lot of pictures**

◆ Make opportunities to share information with the parents

- ...make a map of the playground to show the parents so that they will be familiar with it

◆ Share information in advance

- ...**Since parents understand** that children get dirty and may be slightly injured, **children can play as much as they want.**

Letters to the parents...

< Before entering preschool >

...Children play in the sandbox, climb the miniature hill and trees, play with water, play on play equipment, and get dirty every day. (snip) Naturally, your amount of laundry will increase. They will be injured sometimes, too. (snip) < The explanation about the new play equipment >

The play equipment is aimed at helping children to become able to play by themselves gradually. Please do not help them, such as picking them up when playing after school and on holidays. (snip)

Where can people gather in your playground?

What would you like to tell to parents and community members through the playground?

How do you express this to parents and community members?

< Making opportunities for interaction and participation >

tangible

× intangible

◆ Environment that was made with the cooperation of parents and community members

- ...Making huts with the cooperation of parents
- ...Children, parents, and staff dig and plant some grasses to make a **biotope**
- ...Establishing a **sunshade over the sandbox** with help from the parents association
- ...**Flowerbeds** with the cooperation of community members and parents
- ...While doing renovation work, parents help make a **miniature hill and a tricycle-parking area.**

◆ Annual events and the participation of parents as a custom

- ...They are held annually with the cooperation of the parents association
- swapping sand in the sandbox, disinfection, repairing a miniature hill**
- ...An annual **excursion** using Metropolitan Park (some parents take part in)
- ...A **marathon** is held having parents and neighbors ensure the security of children
- ...Parents and children participate in **cleaning parks and roads in the neighborhood**
- ...Once a year, the fathers; association (fathers), children, and ECEC teachers do **maintenance on the playground (making flowerbeds and picking up pebbles)**
 - By everyone's looking at the play environment and improving it with the children, **checking safety with parents**
- ...Under the guidance of a regional collaborator, with volunteer parents **planting seedlings in flowerbeds in front of the preschool, watering them on weekends during summer vacation, picking flowers**

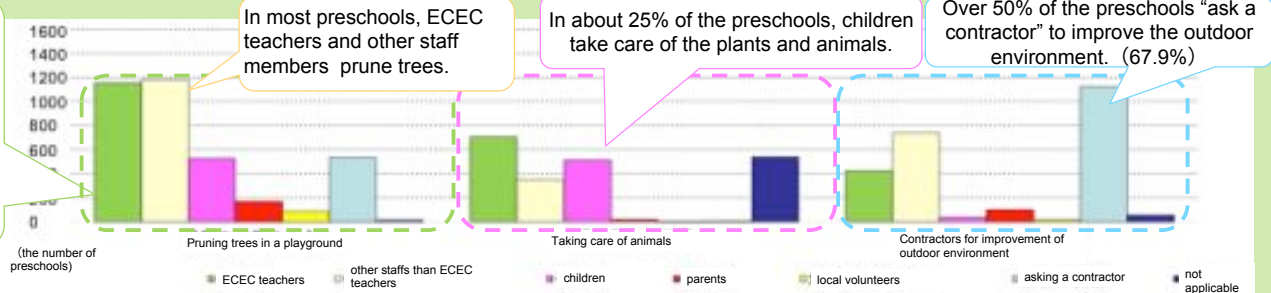
What kinds of opportunities for interaction or participation do you have in your preschool? Or, what kinds would you like to have?

Various efforts are made with the cooperation of parents and community members, this includes both tangible and intangible efforts.

Take a look at the aggregate results on the engagement of parents and the community.

Who improves the outdoor environment?

The engagement of parents and local volunteers is seen in pruning trees. (10.0%, 5.1%)



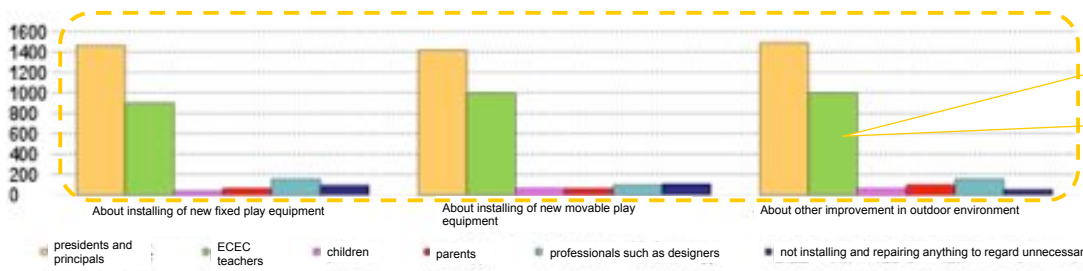
In most preschools, ECEC teachers and other staff members prune trees.

In about 25% of the preschools, children take care of the plants and animals.

Over 50% of the preschools "ask a contractor" to improve the outdoor environment. (67.9%)

Fig.13 Those who improve outdoor environment

Who is involved in decision making about installing or repairing play equipment on a playground?



Presidents and principals are mostly involved in decision making, followed by ECEC teachers. Parents and contractors are under 10%.

Fig. 14 Those who install or repair play equipment on playgrounds

Only a few preschools engage parents and community members in playground renovations or the decision-making process.

What has prompted parents and community members to join in?

We interviewed some people about the start and the processes of change.

Changing anxiety into enjoyment

< Predicting parents' anxiety and sharing the enjoyment of play in advance >

The sandbox (which is a part of this giant play equipment) is being made with the cooperation of parents. **I was sure that parents were worried** about this giant play equipment. That is why we incorporated **activities to make it with them.** (snip) We piled up sand like a hill that weighed less than 10 tons, and we carried it to the sandbox together. We sent a letter to parents in July, noting that, although it was the hottest part of the summer, we would appreciate it if they would help us. (snip) Since we already had a miniature hill, in finishing the sandbox, **we had parents play there for a while. They seemed to enjoy it, didn't they? Then, we told them that we would use it effectively and asked for their understanding.**



The number of people

< The number of participants increased gradually >

(At first, only eight fathers took part, and it took from morning until evening.) The number of participating fathers **increased gradually, as they learned about it by word of mouth** or saw some pictures that we shared. **Pictures can tell a lot about what we are doing,** so they helped to increase the number of participants. Gradually it grew to 20, 30, and this year it was nearly 50 people, which was almost one third of the parents. (snip) **With so many people, we could do a lot more.** We made a pool, a stage, plowed a field, painted and waxed chairs and tables, cleaned the roofs of huts, and so on. (snip) In this way, **more and more people have been joining us.**



Toward collaboration

< Value the opportunities to communicate >

- As children hold "an exhibition," ECEC teachers also hold a "teachers' exhibition" at the end of a school year, inviting parents. They make a presentation about what they have done each year focused on education. (snip) The contents of the presentations are organized into a large poster and posted permanently.
- In advance of big events, we hold a parent meeting. We explain our hopes for the event and how children will grow by showing specific examples, to deepen parents' understanding of early childhood education.

< Column > An example case of a certain preschool:
the process of changing the outdoor environment

Before



- Children are often waiting in line and doing nothing
- Children often get injured when playing on equipment
- Lots of "thou shalt nots"

How to use · rules
→ Step 4

Is the current childcare environment appropriate for children's feelings or behaviors?

Review



- Isn't most of the play equipment appropriate for children to play on or with?

Children's viewpoints
→ Step 2

What kinds of new environments should we make?
What should we do to obtain an understanding of ECEC teachers and parents?

Getting rid of equipment that is not appropriate for children

If we plant a tree, how will children's flow line or play change...

Specific improvement and devices
→ Step 5

Getting a playground project off the ground
(Let's make a plan for an ideal playground)

point

Taking into consideration children's experiences or development of physical ability and judgement...



Visiting other preschools' playgrounds

Children are seen to jump from the top of stairs

a bamboo climbing pole

Let's make a stone wall

Example: Making a miniature hill

Long-term approach

Making it higher gradually...

It is an important part of play to jump from such a high place. It is fun, and brings a feeling of accomplishment.



How to use · rules → Step 4



The sandpit and hanging bars were installed under the outside stairs



Various plants, tools, and materials

ECEC teachers

Everyday review
→ Step 1

Meetings about the playground separate from everyday meetings

Sharing information
→ Step 6

Parents

leasing playground or buildings (parents of former and current students)

Workshops

Parents' questionnaire (Assessing needs)

Project-based collaborative activities such as making a sandbox, a cooking stove, a tipi, etc.



Community

Open an adjoining café (Example: used by neighborhood association for elderly)

Parents and community members
→ Step 7

You can start with any step, they are connected to each other.
We hope you will use them according to your situation or goals.

We sincerely appreciate all preschools' cooperation in the survey, including permission to these pictures.

< Please send us information about playgrounds or practices in playgrounds >

The seven steps we introduced in this leaflet were organized after analyzing the results of interviews and questionnaire surveys we conducted. We would like to continue considering the improvement of quality of practices in playgrounds. We would be very grateful if you could send us information about the practices in your preschool.

Let's start an international dialogue about playgrounds and outdoor play.

Mailing address : entei.asobi2016@gmail.com

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The Cedep Research Group of ECEC Outdoor Environment

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First published in 2018 by Yoshimi Kohsan Corporation, Tokyo, Japan

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