

Early Childhood Education from the Viewpoint of ESD: A Report on the Children of a “Forest Kindergarten”

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Hiroshima University Kindergarten is located not far from the center of Higashihiroshima City in Hiroshima Prefecture, at the foot of a 300-meter-tall hill owned by Hiroshima University. The location is ideal as children can freely go to the hill.

The educational goal of the kindergarten is to cultivate children's minds and to enhance their zest for living by fostering close ties with abundant nature and with their friends, providing an environment for them to express their individuality and grow together. For this goal, we aim to develop children from three perspectives: self, others and environment.

For the past 10 years, since adopting a vision of the kindergarten as “forest kindergarten” in 2006, we have been conducting early childhood education taking advantage of the surrounding nature. We refer to the hill behind the kindergarten as a forest, and by allowing children to enjoy playing there to their hearts' content, we believe that they can develop their interest, motivation and attitudes in an all-around way, including great sensitivity and the motivation to take on new challenges.

In modern society, there is a tendency to focus on tangible capacities and attitudes, which is not the essential purpose of early childhood education. Children's physical strengths and agility is declining, and more and more children lack motivation and dreams. In order to address these issues and to provide a living environment in which children can develop important aptitudes such as sensitivity, curiosity, imagination and a sense of accomplishment, it is essential for children to have moving experiences, and forests provide an ideal environment for this. Therefore, the kindergarten has become a “forest kindergarten.”

The research we are conducting is based on ESD, under the theme: “Research and development of curricula for early childhood education to develop children's ability to build a sustainable society by clarifying the necessary attitudes, aptitudes and abilities and through children's direct experience of closer ties with nature and with people.” Needless to say, ESD is intended to create a sustainable society by addressing various issues of modern society, starting with those around us. ESD is clearly mentioned in 4.7 of Goal 4 for quality education in the SDGs. This section also says that education is the foundation to creating sustainable development and that education based on ESD contributes to achieving all 17 goals in the SDGs. Play and life at kindergarten form the foundation of children's zest for living.

For this purpose, we formulated a childcare curriculum that takes advantage of nature, i.e. a forest. On Forest Days, one element of the curriculum, we invite experts in nature as “interpreters.” Children spend all day in the forest and enjoy playing there to their hearts' content in a relaxing atmosphere. In nature, both children and childcare workers feel secure and confident. As a result, we can provide childcare in a relaxed manner. Children can use all their senses and focus on playing, which is the basis of early childhood education. In the forest, children absorb a lot of information from what they experience by touching, tasting and smelling. They make pancakes using wild plants as toppings. They acquire knowledge by tasting and learn the bounty of nature by eating. In the forest, children encounter various living things. They come to feel that they are also part of the living things in nature.

In modern society, in which the visual predominates, what children experience and learn through touching, tasting, and smelling remain in their minds as formative experiences of early childhood.

To survey the physical and academic abilities of elementary-school children who experienced childcare in nature, we compared those who graduated from our kindergarten and the nationwide average. In terms of physical strength, there were significant differences in endurance, instantaneous muscular power and agility, which indicate positive effects. In terms of academic ability, there were significant differences in both Japanese language and math in all grades. In this way, early childhood education in nature provides a foundation for learning at elementary school and plays a major role in improving children's physical and academic abilities.

The kindergarten's ESD-based childcare ensures that children have various experiences using the surrounding environment of a forest. The research indicates that such experiences have served as the foundation for their education at elementary school. We believe higher quality childcare contributes to achieving all SDGs. We will continue our efforts to improve early childhood education from the viewpoint of the 17 goals and 169 targets of the SDGs, which are pursued in the same global framework.

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Assembly Hall, MEXT



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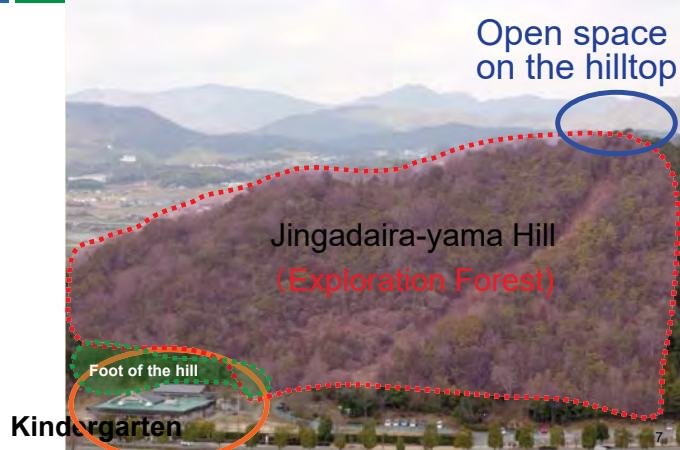
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1. Introduction to the kindergarten (Location)



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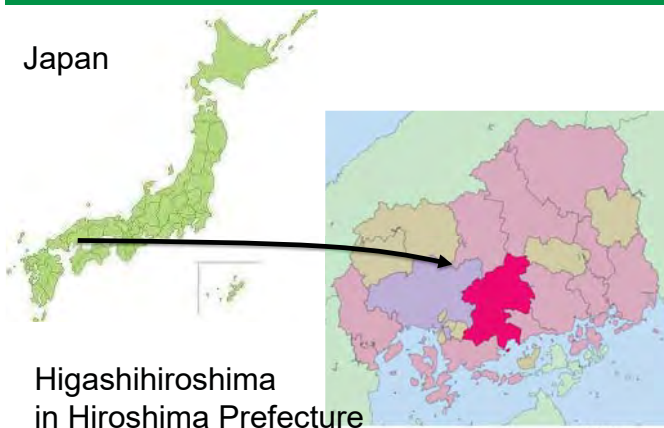
Brief Biography

Graduated from Faculty of School Education, Hiroshima University
Taught at four public elementary schools in Kure and Higashihiroshima, Hiroshima Prefecture
Vice principal of a public elementary school in Higashihiroshima
Principal of a public kindergarten in Higashihiroshima
Principal of a public school in Kure and another in Higashihiroshima
Vice principal of Hiroshima University Kindergarten (since 2016)

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1. Introduction to the kindergarten (Location)

Japan



1. Introduction to the kindergarten (Location)



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1. Introduction to the kindergarten (Outline)

Classes and staff (as of April)

> Classes and enrolment

- Star class (3-year-olds)
 - Enrolment capacity: 20 (20)
- Sea class (4-year-olds)
 - Enrolment capacity: 30 (29)
- Sky class (5-year-olds)
 - Enrolment capacity: 30 (27)
- Total: 80 (76)

> Staff

Principal, vice principal, 3 teachers,
1 school nurse, 4 part-time teachers,
administrative and training staff
Total: 12



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1. Introduction to the kindergarten (Outline)

Hours:

8:50 a.m. - 2 p.m. (MTThF)

8:50 a.m. - 11:30 a.m. (W)



- Transportation by parents
- Children bring lunch
- Fees: same as public kindergartens (73,200 yen/year)

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1. Introduction to the kindergarten (Outline)

Health



Check-up/
Health instruction



School Health Committee
(Kindergarten doctor/parents/
kindergarten)

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1. Introduction to the kindergarten (Outline)

Safety



- Security guard on duty during kindergarten hours
- Security cameras in operation
- Regular evacuation drills



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2. Educational goal/ children's attitudes we aim to develop

Educational goal

To cultivate children's minds and to enhance their zest for living by fostering close ties with abundant nature and with their friends, providing an environment for them to express their individuality and grow together

Children's attitudes we aim to develop

Self: Children who actively engage in activities at their own initiative, both in play and in daily life

Others: Children who understand their friends and cooperate with them in play and in daily life, sharing their creative ideas

Environment: Children who are inspired by what they find around them and are willing to develop a close relationship with the surrounding environment

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3. "Forest kindergarten"

Playground map



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3. "Forest kindergarten"

- 1990 Moved to current location from Hiroshima City
- 2006 Vision for a forest kindergarten formulated
- 2008 Visit by a teacher to a forest kindergarten in Germany
- 2009 Implemented "Forest Days"* for 5-year-olds on a trial basis
- 2010- Started "Forest Days" (about once a week) for children of all ages
(* Children spend all day in the forest.)
- 2016-2019 Started "research on a curriculum to develop children's capacities to build a sustainable society (ESD)" (designated by MEXT)
- 2017 Joined the UNESCO Associated School Project Network (ASPnet)

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3. "Forest kindergarten"

Concept of "forest kindergartens"

(From *Childcare Practice and Curriculum, Utilizing the Surrounding Environment* by Shingo Matsumoto, edited by Hiroshima University Kindergarten)

Current issues

- Tendency to focus on tangible and academic abilities
- Decline in physical strength and agility
- Growing number of children who lack motivation or dreams

Ensure that children acquire necessary experiences
by spending time and playing in the forest

Experiences needed in early childhood

- Fostering sensibility through rich, inspiring experiences
- Learning through daily life and play
- Improving physical strength and sense of balance by playing in the forest
- Life that satisfies children's curiosity and imagination and provides a sense of accomplishment

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4. Research

Research

Third year of MEXT's "Research & Development School"

Research theme

Research and development of curricula for early childhood education to develop children's ability to build a sustainable society by clarifying the necessary attitudes, aptitudes and abilities and through children's direct experience of closer ties with nature and with people

From the viewpoint of ESD: Education for Sustainable Development

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4. Research



Poverty Human rights Environment Peace

To develop children's ability to regard issues in modern society as their own and address them, starting with those around them



Contributes to creating a sustainable society

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4. Research



"Education is the foundation for all SDGs," and ESD contributes to achieving all 17 of the SDGs by developing people's capacity to build sustainable societies.

(From A Guide to Promoting ESD)

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4. Research

Link between ESD and SDGs pursued at our kindergarten

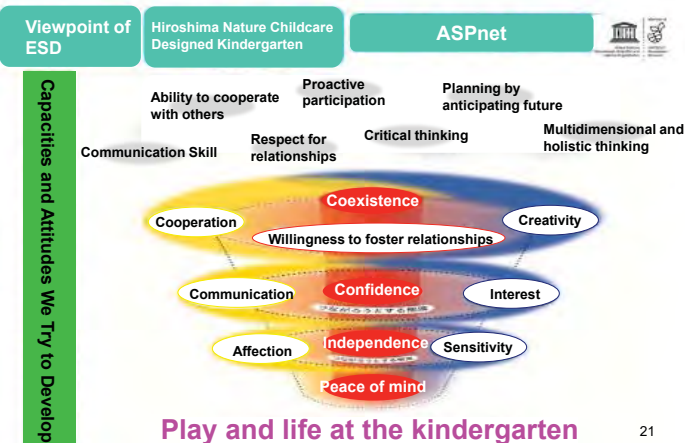
Childcare based on ESD

I. Diversity II. Interdependence/cycles
III. Limitation IV. Fairness
V. Cooperation VI. Responsibility

Contributes to achieving the 17 SDGs

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4. Research (Research concept)



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4. Research (Curriculum)

3-year-olds	Phase I (April-May)	Phase II (June-Oct.)	Phase III (Nov.-March)
Characteristics of each phase	Become familiar with the staff and begin to explore the surrounding environment without concern.	Enjoy playing while establishing relationships with the staff and friends.	Take an interest in the surrounding environment; get involved in and gradually enjoy playing with their friends.
Self	● Grow accustomed to life in kindergarten and look forward to coming.	● Discover what they want to do and try to do it.	● Repeatedly play in ways they enjoy.
Other	● Become familiar with the staff while spending time with them.	● Establish relationships with the staff and friends and feel at ease when spending time with them.	● Communicate their thoughts to their friends and staff and enjoy playing with them.
Environment	● Look at and touch things they encounter around them.	● Interact with things around them, take an interest in them, be surprised, etc.	● Interact with things around them, making use of their senses, and play with these things.
4-year-olds	Phase I (April-July)	Phase II (Aug.-Dec.)	Phase III (Jan.-March)
Characteristics of each phase	Feel close to the staff and friends and explore the environment around them.	Develops their relationship with their friends and enjoy playing in a relaxed manner.	Interact with their friends and enjoy playing with them.
Self	● Grow accustomed to their new life and enjoy playing.	● Find their favorite ways to play and feel satisfied by repeating what they want to do.	● Try to seek their own goals.
Other	● Feel close to the staff and friends and enjoy spending time with them.	● Recognize that their friends are all different and try to interact with them.	● Share their thoughts with their friends and enjoy playing with them.
Environment	● Interact with things around them, making use of their senses, and take an interest in them.	● Be emotionally involved with things around them and develop their interest.	● Play make-believe with things around them.
5-year-olds	Phase I (April-July)	Phase II (Aug.-Dec.)	Phase III (Jan.-March)
Characteristics of each phase	Test their ability, recognizing their use with their friends.	Share their thoughts with their friends and develop their play and life with them.	Fully enjoy life in kindergarten, expressing their individuality.
Self	● Try things they can do and actively engage in play and life.	● Discover and try to do things they can and should do.	● Be confident, expressing their individuality.
Other	● Share their thoughts with their friends while playing and doing other things with them.	● Enjoy collaborating with their friends to achieve shared goals.	● Recognize the distinct personalities of their friends and collaborate with them to develop their play and life.
Environment	● Develop their relationship with the surrounding environment and try out their creative ideas through play.	● Improve their play, thinking for themselves, trying out their creative ideas.	● Reflect on their thoughts and reconsider their ideas to improve their play and life.

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Japanese institutions for early childhood education

School Education (primary and secondary schools)			
Knowledge and skills; ability to think, make decision, express oneself, etc.; readiness to learn			
	Fundamental knowledge and skills	Fundamental Ability to think, make decisions, express oneself, etc.	Readiness to learn, personality, etc.
	Kindergartens	Childcare centers	Certified centers for early childhood education and care
Jurisdiction	Ministry of Education (MEXT)	Ministry of Health (MHLW)	MEXT and MHLW
Laws and regulations	School Education Act	Child Welfare Act	Act on Advancement of Comprehensive Service Related to Education, Child Care, etc. of Preschool Children
Age	3 to Preschool	Infants to Preschool	Infants to Preschool
Purpose	To educate children and provide an appropriate environment to support the development of their minds and bodies	To provide daycare to infants or toddlers lacking daycare, based on entrustment from their guardians/parents	To provide comprehensive support: education and children for preschool children at kindergartens and childcare centers; support for guardians/parents in raising their children
Curriculum guidelines	Course of Study for Kindergarten	Childcare Guidelines for Childcare Centers	Childcare Guidelines for Certified Centers for ECEC (combined kindergartens and childcare centers)

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5. Childcare in nature

"Forest Days"

Generally once or twice a month

Children go to an open space in the forest and spend the day there.

- They fully enjoy playing in the forest and at the foot of the hill.
- They feel comfortable surrounded by the forest.



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5. Childcare in nature

“Forest Days”

Forest experts

Interpreters: those who connect children with nature
those who connect parents with nature

“Forest Days” Rules

1. Children must not climb branches thinner than their arms
2. Children must not carry branches longer than their arms



- Both children and **adults** feel secure and confident in nature.
- Children are **watched over**.
→ They can **focus on playing**.

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5. Childcare in nature

Finding many edible things around them (Tasting)



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5. Childcare in nature

Recognizing whether or not things are dangerous (Touching)



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5. Childcare in nature

Recognizing whether or not things are dangerous (Touching)



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5. Childcare in nature

In classrooms



- There are many restrictions and limitations.
- Children are more often scolded or stopped from doing things.



× It's difficult for children to focus on playing.
× Adults say “No” more often.

In nature



- Children can do what they want to do without worries.
- Adults don't have to scold them.



○ Children can focus on playing more easily.
○ Adults say “Yes” more often.

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5. Childcare in nature



Playing in nature
- Nothing is the same.

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5. Childcare in nature



Playing in nature
- Nature is beautiful.

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7. Links to elementary school education

Comparison of those who graduated from our kindergarten and the nationwide average (2015) on the new physical skills test

	1 st grade		2 nd grade		3 rd grade		4 th grade		5 th grade		6 th grade	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Sit-ups	○	×	×	×	×	×	×	×	×	×	×	×
Side-step	◎	◎	△	○	×	×	×	×	△	◎	△	◎
20-meter shuttle run	◎	◎	×	◎	×	×	×	×	○	△	×	○
50-meter dash	×	×	×	×	×	×	×	×	○	×	×	△
Standing board jump	×	◎	△	○	×	◎	△	△	◎	△	×	○
Throwing a ball	×	○	×	△	×	×	×	×	×	×	×	○

Comparison of those who graduated from our kindergarten and the nationwide average (2013) on the Norm Reference Test (NRT)

	2 nd grade	3 rd grade	4 th grade	6 th grade
Japanese	◎	◎	◎	◎
Math	◎	○	◎	◎

× : No significant difference △ : P<0.10 ○ : P<0.05 ◎ : P<0.01

(From *Childcare in the Surrounding Nature and the Curriculum*³²⁾

7. Links to elementary school education (Comments by parents and elementary school teachers)

Life:

- It looked difficult for children to walk to elementary school carrying satchels.
- They do not know many traffic rules.
- At first, **he** had few friends at the elementary school. (Only several of the children go to the same elementary school.) But **he** has many friends now.
- Some of the rules at elementary school were probably new to **them**. **He** particularly likes life environment studies and science. **He** knows how to do research.
- **He** is good at the traditional Japanese "cup-and-ball" game and is the champion in **his** class.

Study:

- I was afraid that **he** might have trouble because **he** couldn't write, but **he's** now learning, enjoying new knowledge and skills.
- **He** is interested in nature and living things and passionate about them. **He** particularly likes life environment studies and science. **He** knows how to do research.
- **He** has many ideas. **He** can share his constructive ideas and thoughts and carries out creative activities.

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Conclusion

Link between ESD and SDGs pursued at our kindergarten

Childcare based on ESD

I. Diversity II. Interdependence/cycles
III. Limitation IV. Fairness
V. Cooperation VI. Responsibility

Contributes to
solving the 17 SDGs

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