Pre-service teacher education
to promote education for
sustainability in Japan

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Osaka Ohtani University (Japan)
Early childhood education in Japan

Pre-service teacher training in Japan

Education for Sustainability (EfS) in Japan

Pre-service teacher education for EfS

Issues and challenges
Early childhood education in Japan

Pre-service teacher training

Education for Sustainability (EfS)

Pre-service teacher education for EfS

Issues and challenges
Early childhood education in Japan

History

• 1876: The oldest kindergarten was founded.
• 1890: The oldest nursery centre was founded.
• 1926: The Kindergarten Law.
• 1948: Guideline for early childhood education and care.
• 1956: Course of Study for Kindergarten (National curriculum for kindergarten)
Early childhood education in Japan

History

• 1965: National guideline for nursery centers.
• 2006: New type service was founded (Centre for early childhood education and care [CECEC]).
• 2017: Latest revision of three national guidelines for early childhood services.
Education system in Japan

- **AGE 0-2**: Nursery Centre, CECEC, Kindergarten
- **AGE 3-5**: Primary school
- **AGE 6-11**: Junior high school, Secondary school
- **AGE 12-14**: High school
- **AGE 15-17**: University
- **AGE 18-19**: Junior college
- **AGE 20-21**: Technical school
Number of early childhood services

<table>
<thead>
<tr>
<th>Service types</th>
<th>Number of Services</th>
<th>Number of Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>10,878</td>
<td>1,271,918</td>
</tr>
<tr>
<td>CECEC</td>
<td>5,081</td>
<td>689,781</td>
</tr>
<tr>
<td>Nursery Centre</td>
<td>26,265</td>
<td>2,041,764</td>
</tr>
</tbody>
</table>

(2017)
Percentage of enrolment of young children

(2014)

Nursery centre
Kindergarten
Others
Early childhood education in Japan

Pre-service teacher training

Education for Sustainability (EfS)

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Issues and challenges
## National certificates for early childhood educators

<table>
<thead>
<tr>
<th>Kindergarten</th>
<th>Nursery Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibility</td>
<td>Responsibility</td>
</tr>
<tr>
<td>Ministry of Education, Culture, Sports, Science and Technology</td>
<td>Ministry of Health, Labour and Welfare</td>
</tr>
<tr>
<td>Title</td>
<td>Title</td>
</tr>
<tr>
<td>Education Personnel Certification</td>
<td>Qualification as a nursery teacher</td>
</tr>
<tr>
<td>Registered Training School</td>
<td>Registered Training School</td>
</tr>
<tr>
<td>University (4 years)</td>
<td>University (4 years)</td>
</tr>
<tr>
<td>Junior college (2 years)</td>
<td>Junior college (2 years)</td>
</tr>
<tr>
<td>Field experience</td>
<td>Field experience</td>
</tr>
<tr>
<td>4 weeks</td>
<td>6 weeks</td>
</tr>
<tr>
<td>Technical school (2 years)</td>
<td>Junior college (2 years)</td>
</tr>
<tr>
<td></td>
<td>Technical school (2 years)</td>
</tr>
</tbody>
</table>
Educational background of kindergarten teachers

Graduate school (M.S.) 0.95
University (B.A., 4 years) 24.6
Junior College (2 years) 72.5
Laws and regulations for training of pre-service kindergarten teachers

Education Personnel Certification
- Education Personnel Certification Act
- Act for Enforcement of the Education Personnel Certification Act
- Regulation for Enforcement of the Education Personnel Certification Act
Laws and regulations for training of pre-service nursery centre educators

Qualification as a nursery teacher

- Child Welfare Act
- Regulation for Child Welfare Act
Qualification system

- **Government**
  - Laws and regulations
  - Curriculum model

- **Training schools**
  - Proxy application
  - Assessment
  - Curriculum and Training

- **Students**
  - Graduation
  - Obtain credits for certifications
  - Apply for certifications

- Obtain credits for certifications

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Issues and challenges
Environmental Education in Japan

1970s: Concept was imported from the West

1990s: Introduction to the national curriculum

2000s: ESD & Environmental Education Law
Environmental Policy

Ministry of the Environment

- Japan’s Action Plan for the UNDESD (2006)

Education

Ministry of Education, Culture, Sports, Science and Technology


Law

National guidelines for early childhood services

Description of sustainability in the guidelines for early childhood education in Japan

- No description
  - Sustainability
  - Environmental education
  - Conservation
  - Ecosystem
  - Our shared environment
Teacher’s Handbook of Environmental Education for primary school and kindergarten teachers (2014)

- Environmental education for young children
  - Nature-based activities
  - Learning about the surrounding environment
Concept understandings (Inoue, O’Gorman, Davis & Ji 2017)

- Nature Education
- Environmental Education
- Education for Sustainable Development (ESD)
- Education for Sustainability (EfS)

Comparison of concept understandings among Japan, Australia, and Korea.
Teaching environmental issues

(Inoue, O’Gorman, Davis & Ji 2017)
Early childhood education for sustainability in Japan

• National guidelines: No description!
• Early childhood educators: Low concerns!
• Official handbook of environmental education: Early childhood environmental education comprises nature-based activities.
Early childhood education in Japan

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Issues and challenges
Japan

• Osaka Ohtani University
• Tondabayashi City
Osaka Ohtani University

• Small private university in the southern area of Osaka prefecture.
• Four faculties
• 3000 students
The Faculty of Education has three schools

- Early Childhood Education
- Primary and Secondary Education
- Special Needs Education
School of Early Childhood Education

• 120 students/year and 4-year training
• 11 teaching staff and 2 administration staff
• Bachelor of Education degree (B.Ed.)
• Two national certificates for early childhood education
• Education Personnel Certification (EPC)
• Qualification as a nursery teacher (QNT)
### Required number of credits in 4 years

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Number of credits</th>
<th>Number of students (2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduation (B.Ed)</td>
<td>over 128</td>
<td>118 (100.0%)</td>
</tr>
<tr>
<td>EPC (kindergarten)</td>
<td>59</td>
<td>109 (92.4%)</td>
</tr>
<tr>
<td>QNT (nursery centre)</td>
<td>70</td>
<td>106 (89.8%)</td>
</tr>
<tr>
<td>EPC (primary school)</td>
<td>+44</td>
<td>52 (44.1%)</td>
</tr>
</tbody>
</table>
Purposes to study in our school

- Graduation (B.Ed)
- EPC (kindergarten)
- QNT (nursery centre)
- EPC (primary school)
- Completion Certificate
Original training courses: Areas of specialization

- Playful learning
- Nature education
- Family support
Completion certificates

<table>
<thead>
<tr>
<th>Course</th>
<th>Number of completion certificates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playful learning</td>
<td>19</td>
</tr>
<tr>
<td>Nature education</td>
<td>8</td>
</tr>
<tr>
<td>Family support</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
</tr>
</tbody>
</table>

Students who complete all credits in the course subjects receive a completion certificate. In all, 36% of the students who graduated in 2018 received the certificate.
Nature education course

- Grade 2 – 4 (3-year training)
- 40 students per year
- 3 lecturers
- 9 specific subjects
What the nature education course fosters

- Teaching skills in outdoor play activities in nature spaces
- Understanding of the purposes of nature-based activities for sustainability
- Intimacy with the natural world through continuous direct experiences
- Understanding of the relationship between our ordinary lives and the natural world
Students’ experiences (Inoue, 2011)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Camping</th>
<th>Gardening</th>
<th>Play in outdoor nature spaces</th>
<th>Play with natural materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early childhood</td>
<td></td>
<td></td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>Lower primary</td>
<td></td>
<td></td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Higher primary</td>
<td></td>
<td></td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Lower secondary</td>
<td></td>
<td></td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Higher secondary</td>
<td></td>
<td></td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>University</td>
<td></td>
<td></td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>
# Course-specific subjects

<table>
<thead>
<tr>
<th>Grade</th>
<th>Subject</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 semester 1 &amp; 2</td>
<td>Basic seminar II</td>
<td>90 min x 15 compulsory</td>
</tr>
<tr>
<td>2 semester 1</td>
<td>Young children and plants</td>
<td>90 min x 15 elective</td>
</tr>
<tr>
<td>2 semester 1</td>
<td>Early childhood horticulture</td>
<td>90 min x 15 elective</td>
</tr>
<tr>
<td>2 semester 2</td>
<td>Teaching skills in nature play</td>
<td>90 min x 15 elective</td>
</tr>
<tr>
<td>2 semester 2</td>
<td>Practical training of nature-based activities I</td>
<td>90 min x 15 elective</td>
</tr>
</tbody>
</table>
Course-specific subjects

<table>
<thead>
<tr>
<th>Grade</th>
<th>Subject</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3  semester 1</td>
<td>Young children and animals</td>
<td>90 min x 15 elective</td>
</tr>
<tr>
<td>3  semester 2</td>
<td>Practical training of nature-based activities II</td>
<td>90 min x 15 elective</td>
</tr>
<tr>
<td>4  Semester 1</td>
<td>Environmental education</td>
<td>90 min x 15 elective</td>
</tr>
<tr>
<td>4  semester 1 &amp; 2</td>
<td>Practical exercise B</td>
<td>90 min x 15 elective</td>
</tr>
</tbody>
</table>

Total: 9 course-specific subjects / 18 credits in 3 years
Most subjects are not required to obtain the EPC or QNT
Basic seminar II

Grade 2

Compulsory for graduation and for a completion certificate of the nature education course.

15 units (7 units in the 1st semester, 8 in the 2nd semester)
Basic seminar II: One-day field experiences

10 fields
3 early childhood services
1 non-registered forest kindergarten
3 nature activity centres
3 non-profit groups

Nature activity centre
Basic seminar II: One-day field experiences

- Preparation
- Field experiences
- Documentation
- Presentation
Basic seminar II: One-day field experiences

- People who know the value of nature experiences.
- People believe nature experiences contribute not only to children’s development but also to sustainability.
- Child-centered pedagogy.
Searching river wildlife
Why do ECE services care for animals?

Animal welfare

Professional support from the Veterinary Medical Association
Basic seminar II: Outdoor cooking

- Why outdoor cooking?
- Baking *Baumkuchen* on charcoal bonfire.
Early childhood horticulture

- Growing flowers and vegetables
- Cooking vegetables
Teaching skills in nature play

- Playing with natural materials
- Learning Japanese tradition
Practical training of nature-based activities I

- Qualification as Nature game leader
- Japan sharing nature association
Practical training of nature-based activities II

Qualification for Skogsmulle leader

Skogsmulle: Swedish early years pedagogy in outdoor spaces for children aged 5-6 years.

Focused on ecological literacy.
Practice
When students graduate from our university, I became confident in practicing nature-based activities. I came to recognize the natural world elements, such as small wild flowers on the street in my ordinary life. I did not know any names of plants and have playing skills. Now I know them.
When students graduate from our university, I want to decrease the number of children who do not like the nature. I want to provide children with many opportunities to learn, enjoy, and care about the natural world. I want to let children use their five senses to feel nature. I want to focus on sympathy with living things in the natural world. I want to foster children who want to care about our shared natural world.
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Issues and challenges
Issues

- Strict regulation of the Government to get EPC and QNT
- Half of students want to get 2 EPC and QNT: this requires too many credits
Challenges

- Pedagogy improvement
- More direct experiences
- Connect theories and experiences

Career support
- Internship opportunities
- Finding jobs for appropriate ECE centres
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