Early Childhood Engagement with Nature Through Outdoor Learning on Farming-Based Activities in the Rural Area
“An experiential method of learning by doing, which takes place primarily through exposure to the out-of-doors. In outdoor education, the emphasis for the subject of learning is placed on RELATIONSHIPS: relationships concerning human and natural resources.” (Priest, 1988).

- It is an active learning in the outdoors
- Children learn through what they do, what they see and what they discover
- Outdoor learning is real learning. It can help to bring many school subjects alive to children.
Outdoor learning has been extension to support classroom teaching. Most of the study was focusing on the development of curriculum such as Science, Geography, Moral Studies etc. The focuses on school–aged children.

Few investigations of outdoor learning space for younger children in settings such as farming that can be more relaxing and integrating children play with nature.

The content of the programs usually will be nature-based activities and environmental education targeting on major issues, such as recycling matters, camping and jungle tracking etc.
The Scenario in Malaysia

Programs by established by different groups (NGO’S, Private, Universities and Government Agencies):

1. The Eco School (WWF Malaysia)
2. The Malaysia Nature Society
3. The Nature Club
4. Yayasan Anak Warisan Alam
5. Water Watch

Pre School Learning System in Malaysia

- Using the indoor learning system that focusing on memorizing all the input from the syllabus.
- By using system based on grades and marks and position in the class, therefore there are no appreciation of learning in daily life.
To analyze how the environment shape the children’s behavior through outdoor learning in the rural area as a 2nd classroom in order to stimulate the children’s development.
1. To involve the children in the design process where they get connected with nature naturally which gives children first-hand contact with natural world.

2. To stimulate the children’s physical, social and cognitive performance towards the outdoor environment that leads to Lifelong Learning or known as Experiential Learning.

3. To identify the relationship between outdoor environment or nature and children’s learning.
Children of 5-6 years old

**Representational Objects**

**Subject:** Cognitive & Physical Development

**Focus:** Promoting critical thinking during the design process.

**Overview:** The ‘Farming Activities’ will lead to ‘a kind of life-enriching activities’

**Psychoanalytic Theory**

The therapeutic effect: release their emotions freely (Distressing)  
(Sigmund Freud, 1923/1973)

**Arousal Modulation Theory**

Stimulation to learn about the surrounding

**Metacommunicative Theory**

Communication using language to describe events, make believe play

**Cognitive Theory**

Process of assimilation (when children learn new things. Children adjust their knowledge when they see new things And at the same time they creating ‘Equilibrium (balancing)’.  
(Piaget, 1952: Vygotsky, 1967)
Literature Review: Play

NATURE rich in PLAY

ENGAGEMENT TO NATURE (As Direct Learning)

- Cognitive
  - Children to be more creative, thinking logic and problem solving
    (Malone and Trantzer, 2003)

- Social
  - Cooperating, sharing, making friends, take turns, Nature stimulate enjoyment, fear and challenge
    (Kellert, 2002)

- Physical
  - Motor skills development improve their strength agility and endurance

Research has shown play at the early years of a child's can contribute significantly to the child's cognitive, social and emotional development.

Schemata
5 important types of schema
- scenes, events, actions, persons and stories
  (Howard, 1997)

Patterns of Play
Behaviors can be linked through schemas which child can generalize and use in a different situations
(Bruce, 1996)

Affection
Positive feeling and emotional attached to a place
(Crawfa, 1999; Kellert, 2002)

Recognition & Discovery
Children are likely to repeat their visit to the place base on their experienced and psychological affection,

Evaluation / Evaluative

Different types of environments indicate more creative forms and play by engaging with natural and green - including fantasy and pretend play
(Louv, 2006)

Nature is..
- universal and timeless
- unpredictable
- bountiful
- beautiful
- alive with sounds
- create a multiple places
- real
- nourishes and heals
(Greenman, 2005)
Subject : Farming Activities for Children
Unit of Analysis : Children
Theories / Underpinning : Waldorf, Howard Gardner & Piaget
Keywords : Outdoor Learning, Children, Farming, Life Longlearning
Children & Nature

Outdoor environment

Outdoor learning

Context: Natural Environment Setting


Why FARMING?

School compound
Playground
Park
Forest
Ocean
Wetlands
Mountain
Farming/Orchard

• Malaysia curriculum NKRA 2015-2020 are towards life long learning. (emphasize on environmental conservation)
• To support with the school curriculum on children outdoor learning.
• As part of science learning subsequently from farming can produce their own foods from their orchard.

Project Based Approach (known as Experiential Learning)
• Experiencing
• Reflecting
• Thinking
• Acting

Produce: Model and Guideline

Implications:
• Children
• Teachers
• Designers

Methodology

Children participation (as the prime data)
children at age of 5-6 years old
- Nurtures the whole child: physical interaction

Mosaic Approach

Purpose: To propose an outdoor learning based on our cultural context (Orchard) in learning. This will base on day to day activities on farming.

OUTDOOR (what kind of outdoor)
• Playground
• Botanical Garden/Park
• School
  □ Indoor
  □ Outdoor

Involve:
• Memory/schemata
• Socializing
• Play
• Exploring
• Words
• Creative thinking

Purpose:
To propose an outdoor learning based on our cultural context (Orchard) in learning.

Research Framework
THANK YOU

Photos credit: Tue Yue Nang & Chekiemonkie