TEACHING AND LEARNING Sustainability through Local & World Heritage Education

6th Asia and Pacific Experts Consultation on “Reorienting Teacher Education to Address Sustainability”

22-25 August 06
Janet Pillai, School of Arts, Universiti Sains M’sia
Shifting Education from Content Base to Perspective Base

INSTITUTIONALISED
Formal Education
Information, Knowledge

ESD

LOCAL
Non-Formal Education
KAttitude Values Practice

Adapted from Issoo Tabuchi
Nara Univ. of Education
Heritage Education
through mapping and interpretation

Pilot Project 1: Non-Formal Education
myBALIKpulau (November & December 2005)

Pilot Project 2: Integration into Formal Education
A Study on the Main Traditional Economic Activity in Kuala Jalan Baru Village, Balik Pulau.
Pilot Project 1 – Non Formal Education

myBALIKpulau
A Mapping & Interpretation Heritage Education Program for Young People
Sequence of Project

- Participants are given an overview of local culture, history, geography, economics of the locality.
- Participants are taught research and documentation skills.
- Field research to inquire into issues of heritage and sustainability.
- Codify data and connect to cultural, religious, historical, social economic context.
- Creative output that can communicate impressions or social reflections on the historic, economic, environmental and social significance of the site.
Heritage Education Program

About the project

**Workshops**
The project involved inquiry and documentation on 3 topics
(using digital photography as a tool)

- **my Self**
- **my Family**
- **my Town**

**Participants**
15 children (11-12 years) from 5 different schools - Balik Pulau district
2 facilitators & 2 assistant facilitators
1 visual artist

**Duration**
November & December 2005
Mapping

- Identifying inherited assets and resources
- Research people, products and processes
- Categorize and process the data
Warm Up Games –
Team building among community of children
Tool 1 IT Workshop
Tool 2 - Photography Workshop
Tool 3 - Mind Mapping
Interpretation

- Develop an impression of the community as a complex network based on the past, present and future potential development

- Analysis of this impression from a heritage and sustainability perspective

- Communicating through exhibition, signboard, brochure, banner etc the history, economic, environmental and social reflection of the site
1st Interpretation

My Self
My Family

2nd Interpretation
3rd Interpretation My Town/ My Village
Study of Urban Site
Study of Rural Site
Di kampung Titi Teras terdapat sebatang sungai. Sungai ini merupakan tempat yang tenang dan sering dikunjungi untuk menangkap ikan. Antara jenis ikan yang terdapat di sungai ini ialah ikan sepat, keli, haruan dan lain-lain lagi. Air dari sungai ini asalnya dari sebuah bukit yang berdekatan. Sungai ini mengalirkan air ke sawah melalui tali air. Tali air ini dibuka sebesar ¾ atau 1 ekar tanah untuk membolehkan air mengalir ke dalam sawah. Air di sungai ini mengalir ke dalam sawah melalui lubang.

Sawah padi ini mempunyai ramai pemilik. Seorang pemilik tanah mempunyai 1 ¼ ekar tanah hingga 10 ekar tanah. Sawah mereka diusahakan sendiri dan ada juga yang mengupah orang lain untuk membajak tanah. Seorang pekerja dapat menyiapkan kira-kira 9 ekar tanah sehari. Mereka memulakan kerja pada jam 7 atau 8 pagi. Untuk menyiapkan proses penanaman padi mengambil masa kira-kira 4 bulan. Proses penanaman dilakukan dengan menggunakan mesin kavoter dan traktor. Proses-proses yang terlibat adalah seperti berikut:

1. Menyiapkan tanah
2. Menanam padi
3. Memupuk sawah
4. Panen padi
5. Pencairan sawah
Pilot Project 2

Subject: Geography
*A Study on the Main Traditional Economic Activity in Kuala Jalan Baru Village Balik Pulau.*

Target Group: Students (Age 15)
5 Fishing Families

Duration:
*(May-October 06)*
**Mapping Tools**
1. Interviews
2. Observations
3. Walkabouts and site visits
4. Photography
5. Illustrations and sketch maps

**Objectives**
Identify the status of fishing as a family career
Identify how natural heritage supports fishing
Identify the various problems faced by fishermen presently
Data analysis of economic evolution of 5 fishing families over two generations.
Sequence of Project

1. Teacher identifies the location and interviewees

2. Training workshop in photography, interviews, maps

3. Preparing questionnaires

4. Field trip and research at the chosen site.

5. Evaluation and interpretation of data

6. Preparation of the folio
Students at work in fishing village
Interpretation - Folio

• Bar Charts (occupational changes over 2 generations)
• Topographical Maps (landforms)
• Problem Analysis (threats on fishing industry)
## OUTCOMES

### Infusion of WHE/ESD into Geography Folio Project

<table>
<thead>
<tr>
<th>Previous folio project</th>
<th>New folio project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data collection – focused only population statistics or study of relief in topographic maps</td>
<td>Data infused with the human element – relating emigration to livelihood problems faced in the area.</td>
</tr>
<tr>
<td>Presentation of facts and figures</td>
<td>Reflection on the challenges faced by the community and their personal feelings towards their learning experience.</td>
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<tr>
<td>Sustainability is a general issue in the syllabus</td>
<td>Sustainability is concretised and brought closer to home for the students as the issue faced is within their own community.</td>
</tr>
<tr>
<td>Previous folio project</td>
<td>New folio project</td>
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<tr>
<td>------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>General data on occupations and occupational problems</td>
<td>Specific problems of depleting fish reserves faced by small fishermen and impact on their future.</td>
</tr>
<tr>
<td></td>
<td>Comparison of occupational change between 2 generations and analysis of future trends</td>
</tr>
<tr>
<td>Landforms studied in isolation</td>
<td>Correlating natural landform to fishing as a traditional industry and impact of surrounding development</td>
</tr>
</tbody>
</table>
### Evaluation

1. How different is this field exercise from classroom teaching?

<table>
<thead>
<tr>
<th>Classroom Teaching</th>
<th>Field teaching</th>
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</thead>
<tbody>
<tr>
<td>Only teaching facts</td>
<td>Facts have a context</td>
</tr>
<tr>
<td>Focused more on techniques and formula</td>
<td>Related more to daily living and culture</td>
</tr>
<tr>
<td>Teaching/Learning dependant on reference books provided by school</td>
<td>Learning in real context</td>
</tr>
<tr>
<td>Only cover general &amp; national issues</td>
<td>Issues more localised</td>
</tr>
<tr>
<td>No values-education included</td>
<td>Values such as empathy, rights. Responsibility were raised</td>
</tr>
</tbody>
</table>
Problems or difficulties encountered when sharing your knowledge on the field with peers?

• As teachers we are not aware of environment, resources and materials in the locality

• We lack of training/practice in writing syllabus to infuse ESD or WHE concepts

• We lack of facilitation skills

• Activity viewed as irrelevant, because not part of examinable text

• Most teachers are unwilling to spend personal time to carry out field work unless there are incentives.
Envisioning INTEGRATION

Non-Formal Education + Formal Education

Analysing teacher training systems
Selecting innovations
Strategising
Planning for Action
INNOVATIONS

At the level of training & pedagogy:

• Working on the principle that knowledge is intrinsically integrated.

• Adopting an interdisciplinary approach and work in collaboration with experts from other fields

• Upgrading teachers skills in ‘tools’ and ‘facilitation’ skills

• Giving more prominence to analysis and practice rather than information banking

• Training teachers to modifying syllabus to incorporate heritage and sustainability perspective
INNOVATIONS

Changes to attitudinal / mental mode:

• Change perceptions of teachers/children towards local cultural systems and traditional ways of working.

• Changing attitude of teachers to look beyond the classroom by providing training in ‘real’ settings.

• Changing thinking trends among children/teachers towards resources, products and processes

• Help teachers/learners identify and document the interconnectivity of cultural, social, philosophical and economic systems.
INNOVATIONS

At the level of values
• Adopt transformational goals, to initiate consciousness or change in attitude/behaviour

• Produce teachers/learners with social responsibility through ‘interpretive’ projects that benefit the school/community

At the level of Learning:
• Engage learners in daily life and local environment through field trips, interviews, site visits, projects

• Use accessible and child-friendly tools