COMPASS SCHOOLS: CHARTING A COURSE FOR SUSTAINABILITY EDUCATION

Regional Seminar on ESD in Action in Asia-Pacific under the Mobile Training Team (MTT) Project
14 July 2010
According to the UN . . . Sustainable Development is . . .

“. . . development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

But the leading global indicators show a different story . . .

Source: International Geosphere – Biosphere Programme 2004
“The human population is now so large that the amount of resources needed to sustain it exceeds what is available at current consumption patterns” (Achim Steiner, UNEP Exec Director).

Source: Global Footprint Network - http://www.globalfootprintnetwork.org/
Economic Growth at the expense of Ecosystem Health
Right now . . . an Inverse Relationship

Some of our Sustainable Development Challenges

**Economic**
- Poverty
- Resource scarcity
- Corporate responsibility
- Rural development

**Nature**
- Climate change
- Deforestation
- Biodiversity loss
- Fresh water
- Urbanization
- Waste reduction
- Disaster reduction

**Social**
- Social development
- Sanitation & hygiene
- Crime
- Trafficking
- Infectious diseases
- Gender equity
- Food security
- social & ethnic conflict

**Well being**
- Personal development
- Individual happiness
- Spiritual emptiness
- Personal security

What is missing? . . . A systems perspective and approach.
Our Un-Sustainability . . . A product of our education systems?

“The destruction of the planet is not the work of ignorant people. Rather it is largely the result of work by people with BAs, BScs, LLBs, MBAs and PhDs.”

- Prof David Orr, *Earth in Mind*, 1995
Introduction to the Compass Schools

The System Iceberg

Events & Outcomes
  e.g. Pollution, Crime, Corruption

The GREAT SEA of LIFE

Source: Senge, Peter, Schools That Learn: A Fifth Discipline Fieldbook for Educators, 2000
“Education can only be sustainable if the development model is sustainable”

“We rarely practice education, but rather, we mainly practice schooling. Schooling largely makes us more dumb (i.e. less smart).”

- Sombath Somphone 2010 (ESD Regional Seminar)
4 Basic Conditions for Sustainability

- **Nature**: Living within the Earth’s physical and biological limits

- **Economy**: Maintaining a vital prosperous economy

- **Society**: Supporting social stability, equity and development

- **Wellbeing**: Making individual opportunity, fulfillment and happiness
Sustainability . . .

. . . requires reorienting how we think. . . and thus, how we educate, teach and learn.
“It is absolutely essential to change the way we think. All other attempts at change will fail if we do not transform our thinking . . . A proper understanding of the way the world works requires people to think systematically, holistically, integratively, and in futures mode.”

(Lester Milbraith, 1996)
“Education for Sustainable Development (ESD) is the process of learning our way towards sustainability.”

UNESCO Bangkok, Asia-Pacific ESD Astrolab
Sustainability as Transformative Education

- **Education “about” Sustainability – Accommodating…** is an awareness lesson or theoretical discussion (emphasis on content, information, knowledge… easily integrated into curricula and existing paradigms … may not change values and behaviours).

- **Education “for” Sustainability – Adaptive – Learning for change …** is the use of education as a tool to achieve sustainability (includes knowledge, values and skills … reorientation of curricula but within existing paradigms… values contradictions between theory and practice)

- **Education “as” Sustainability – Transformative – Learning AS Change …** Emphasis on process, quality learning, development of the whole person, involvement of the whole school community, and transformative learning experiences. Schools provide the role model for sustainable practices through values & behaviour, holistic learning experiences, and participative, collaborative, shared leadership / decision-making.

**Source:** S. Sterling, Sustainable Education, Re-visioning Learning and Change, 2001.
“Education for Sustainable Development integrates concepts and analytical tools from a variety of disciplines to help people better understand the world in which they live.”
ESD is essentially about “Understanding”

ESD is essentially about ‘new thinking’ to meet the challenges and opportunities of the 21st Century.

This requires a transformation of education as has been practiced in the 20th Century;

Education “for” and “as” sustainability must be based on understanding rather than merely information and knowledge transfer;
ESD requires a shift from passing on a set body of knowledge such as is in a complete textbook (transmissive) to recognition that we are all learners learning together and moving into the unknown, to invent and discover new knowledge that contribute to sustainable practices (transformative).
This requires a new relationship between teachers and students and thus, re-thinking of curriculum and the school as a whole.
Whole School Transformative Change

VALUES

RELATIONS

student

TEACHING STRATEGIES

STRUCTURES
What is a whole-school approach to Sustainability

A whole-school approach to sustainability emerges from the school vision and is articulated in all facets of school life:

- how the school is organised and operates;
- school design (within the limitations of existing structures);
- development and management of school grounds;
- reduction and minimisation of resource use by the school (water, energy, products and materials);
- enhanced connections between the school, its community and other educational institutions;
- conservation and protection of heritage values in the school and its grounds; and
- reorientation of the curriculum and the teaching and learning towards sustainability.
Introducing the Compass School Concept
Introduction to the Compass Schools

A Compass School...

...actively integrates and infuses sustainability education into all aspects of the school by using the Compass tool/lens to do so.

- Community partnerships and participation
- The mission/vision, purpose and shared values
- All institutional policies and guidelines
- The school ethos, culture and environment
- Behavior of students, teachers and staff
- Teaching/learning process, Curriculum, methodology and pedagogy
- The school buildings, grounds and operations
The Compass of Sustainability
An Orientation Tool for School Sustainable Development

- Environmentally healthy and Responsible
  - Nature
  - Economy: Economically Responsible & Viable
- Socially Responsible Cohesive and involved
  - Society
- Healthy & Happy
  - Wellbeing
Introduction to the Compass Schools

The Compass metaphor . . .

- . . . provides a simple, clear, integrated and comprehensive structure for sustainability learning,

- . . . provides a platform for the sustainable management of schools as institutions that actively model the behavior we seek to develop.
Introduction to the Compass Schools

The Compass of Sustainability uses the four directions of the Compass (N, E, S, W) to reflect four fully interdependent dimensions of life:

- (N = Nature) - The natural systems on which all life depends; healthy air, water, land; sustainable resource use; sufficient habitat; preservation of scenic beauty;

- (E = Economy) The economic systems that provide humanity with goods, services, and meaningful work; includes revenue, jobs and wages, budgets, taxes, markets, etc;

- (S = Society) The social and cultural systems that provide cohesion, identity, security and freedom; cultural traditions; legal frameworks

- (W = Wellbeing) - The health, happiness, and quality of life for individual people and their families
The Compass: A framework for ESD

The Compass can be used to help frame curricula for ESD, help set school policy in line with sustainability principles, help manage school operations and offer a common ground which everyone in the school community can feel a part of the journey towards sustainability.
Introduction to the Compass Schools

The Compass: A framework for ESD

Strategic planning
Adapting curricula
Lesson planning
School events
Classroom discussions
Group discussions
Student-led projects
Assessments
Compass School Approach

How the Compass is used to integrated ESD into all aspects of school life:

Whole School Strategic planning framework / tool

Interdisciplinary Curriculum Integration framework/tool

Educational classroom tool
COMPASS IN THE CLASSROOM
Homeroom Discussions

• Compass is being used as a holistic thinking lens and analysis tool in the classroom;

• Used in such classes as:
  • Mathematics
  • English Literature
  • Social Studies
  • Art
Homeroom Discussions

- Students raised concerns about food at the cafeteria.
- The Compass provided a tool to understand how a cafeteria operates and the different elements that must be taken into consideration.
Global Warming Science Fair
COMPASS AS A CURRICULUM INTEGRATION TOOL
Compass Curriculum Integration Process

Step 1: Assemble Teaching Staff and Agree on Priority Local SD Issue

Step 2: Use Compass to identify and map out the causal factors (cause & effect) related to this issue;

Step 3: Develop Systems Diagram visualizing the systemic causal relationships between factors;

Step 4: Using a ‘backwards design approach’, start with an Enduring Question;

Step 5: Conduct Curriculum Mapping exercise to find the links between existing curriculum syllabus and Compass variables;

Step 6: Develop subject/grade specific “Essential Questions” that students should be able to answer at end of term;

Step 7: Lesson Planning;

Step 8: Assessment & Evaluation (Cognitive, Emotional, Social).
You are cordially invited to:

NIST Year 6
PYP Exhibition

Date: Monday May 3rd 2010
Time: 9am-11am
Venue: NIST Theatre

Sharing the planet:
Understanding the ‘big picture’
empowers us to live with the future
in mind.
WHOLE SCHOOL APPROACH
The Compass School Approach

- The Compass School approach & methodology translates and links these four general Compass dimensions with the specific working areas of school life, which we call Compass School Portals

1. School Governance
2. Teaching and Learning (including the curriculum)
3. Management and Operations
4. School Culture
5. Buildings and grounds
6. Networking and Partnerships with external community and others
Introduction to the Compass Schools

The Compass School Roadmap

1. **Build Readiness…**
   - Introduce the Idea of Sustainability and the Compass

2. **Modeling & Transfer of learning to others**

3. **Evaluating & Monitoring**
   - Use your Compass Indicators to assess outcomes and Impacts of your plan and Actions, and make adjustments

4. **Implementing**
   - Begin implementing your ideas in any of the Six Compass Portals

5. **Form your Teams**
   - Create the Compass School Team and Steering Committee

6. **Baseline Assessment**
   - Survey the school community, elect Compass Indicators & collect and analyze the data

7. **Thinking & Planning**
   - Using ISIS Systems thinking tools and methods, the Compass Portals, Amoeba and Diffusion innovation strategies and StrateSphere, make your plans

8. **Begin with the End in Mind**
   - Agree on values and principles that will guide your actions and create a Shared Vision of your Compass School

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   - Create a Shared Vision of your Compass School

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15. **Modeling & Transfer of learning to others**

16. **Build Readiness…**
    - Introduce the Idea of Sustainability and the Compass
School Sustainability Self-Assessment
Whole School Planning Approach
How it Works using ISIS & Pyramid

Vision: What is our definition of a Sustainable School?

AGREEMENTS & ACTIONS: How do we work together?

STRATEGIES: How do we implement the change?

INNOVATIONS: What change do we want to make?

SYSTEMS: Why is it happening? Where can we make change?

INDICATORS: What is happening? What are the trends?
Introduction to the Compass Schools
Teaching & Learning

N  The question students are asked to think about when designing says it all here: ‘Can we balance farming and nature to maintain an equilibrium within the environment?’

E  Growing selling own food, no use of plastics, no payment for chemicals and continued recycling.

S  Employment of community to work for their food with the idea of producing marginally more than needed to sell to the wider community.

W  No chemical pesticides on foods, therefore none can seep into the water system and community members get a feeling of self-worth & achievement from their toils, as well as maintaining their health by not exposing themselves to chemicals.

Prem School, Chiang Mai… Compass used as teaching and learning tool in the School farm
Introduction to the Compass Schools

Operations and Support
School Culture

SUSTAINABILITY STARTS HERE!
Switch off lights, fans, aircon

Meat Free Monday
Introduction to the Compass Schools

Buildings and Grounds

Promoting campus biodiversity

Creating EM
Networking and Partnerships

Local, national and international connections
Thailand Eco-School Planning

- Pilot project with 41 schools in all five regions of Thailand
- Compass was used to assist schools in their pre eco-school planning by aligning eco-school indicators and strategies with community sustainable development issues and trends and priority needs.
- Currently, schools are implementing their respective plans and assessment is on-going, with expansion to 35 more schools this year.
What is attractive about the Compass Model

What teachers say...

- It provides me with a fresh lens to view my entire curriculum, allowing the students to think, discuss and present all aspects and approaches to proposed problems both within and beyond the topics we are learning.

  Chris MYP Science and IB Biology teacher
I like the compass model as it provides a clear framework for discussing sustainability. Often generating initial ideas can be the most difficult part of working with students and having an easy to remember focus gets them started.

We hope that it will be something that they can take with them into their lives beyond school.

As a mathematician, I also like the introduction to systems thinking that it provides.

Lucy Kyte, Mathematics teacher
The compass model is an excellent tool for encouraging higher level thinking skills, listening and speaking skills, group cooperation, collaboration and compromise. Using the compass model students are encouraged, actually forced, to think outside the linear domain. They have the opportunity to learn to appreciate the opinions and thought processes of their peers. Compass model gives students a foundation/template for strategic planning, a valuable tool for research, problem-solving and project work both in the classroom and in their personal lives.

Sandy, Junior School teacher
The Compass is a great tool:

- It creates high level and critical thinking from both students and staff
- It is powerful in its simplicity and depth
- Easy to manage
- A great mind tool
- The metaphor of a compass showing the way ahead is helpful

Maxine Driscol Head of School
Compass influences on campus life

- Increased thinking about *well-being*
- Greater participation in yoga and dance classes
- Beginning of systems thinking: eg. health and safety committee thinking across the compass
- Greater awareness about valuing wider community
- Each department more aware of the importance of operating sustainably
The Global Compass Schools Network

A Source of Resources:

- People, Tools, Examples, and Professional Support
Introduction to the Compass Schools

Vision of Compass School Network

- Teachers, administrators, students and parents all participating in a world-scale conversation about how to swiftly transition to being a sustainable school.

- Access to resources of all kinds – some free, some peer-to-peer, some paid (professional products and services).

- A dynamic and inspiring platform for change.
Membership is open to schools and educational organizations / institutions.

Please note: Teachers who have successfully completed a ‘Training To Trainers’ workshop have qualified to lead workshops ‘in house’ and to apply for an Atkisson Licence.

Three Different levels of membership:

- Associate Member: Open to all schools, by subscription; includes access to basic services, resources, tools and training.
- Accredited Member: For schools that have completed their first full implementation of the Compass Schools program and have been formally recognized with an accreditation.
- Elite Schools – Highest Level Accredited and Model Schools

Accredited & Elite Schools (and schools in the process of getting accredited) have priority access to more advanced services and professional support.
Resources Available to Compass

- Teachers trained as trainers, conducting ‘in-house’ workshops and implementation practices.
- Special Education Edition of *ISIS Accelerator* toolkit for sustainability.
- Workshops and training opportunities.
- Access to a network of accredited trainers and role-model schools for professional support.
- Access to international experts in various fields of sustainability (via the AtKisson Group)
- Information service for keeping up to date on best practices in EDA
- Network web portal
Compass School Network to date…

- Currently we have 10 Associate Schools in China, Thailand, Malaysia (all international schools)
- 41 Thai government schools (Eco-schools) using Compass
- Two Compass Schools Workshops held … next one in Bangkok in October
- Compass School Coordinator hired (will start in August)
- Web portal established and working for workshop graduates and Associated Schools
- Development of Materials (handbook and School Self-Assessment)
PROPOSED ORGANISATIONAL STRUCTURE
Thank you for your attention!

Robert Steele

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www.atkisson.com

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