ESD Town Hall
Pedagogy and Whole Institution Approach

The Learning Teacher Network
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Global Action Programme (GAP) on ESD

GAP Objectives:

1) Reorient existing education and learning toward SD

2) Strengthen education and learning in all SD agendas, programs, and activities such as national SD action plans
GAP Global Strategies

Maintaining and Building New Momentum
Through Launch Commitments

Harnessing Partnerships
Through Partner Networks

Fostering a Global Community of Practice
Through a Global Forum and an on-line clearinghouse

Showcasing Good Practice
Through a UNESCO Prize for ESD
Five GAP Priority Action Areas

- Advancing policy
- Transforming learning and training environments
- Building capacities of educators and trainers
- Empowering and mobilizing youth
- Accelerating sustainable solutions at the local level
Ministries and Faculties of Ed

Learning Perspectives

• Traditional – Learning as an “acquisition” model
  Knowledge, solutions, true/false right/wrong

• T-Plus – Learning as a “participation” model”
  complexity, reflexive, reflection, negotiation

• T-Post – Learning as an “anticipation/foresight”
  model
  ambiguity yet, taking charge, responsibility, values
  and ethics base,
Wicked Issue Dilemma Framework

**Take Action**

- Prepared
- Wasted $

**Don’t Act**

- Unprepared
- Saved $

**Necessary**

- Deeper understanding
- Save resources
- No “collapse” (econ/envi/soc)
- Reduced suffering
- Saleable technology
- Economic infusion

**Unnecessary**

- Resources diverted
- Other issues unaddressed
- Research and understanding
- Economic activity
- Some economic recovery-tax
- Some activity salvageable

**Maximum damage/collapse**
- No understanding/expertise
- More expensive to remedy
- No transferable knowledge
- Time-lag to begin
- No equipment/infrastructure

**Resources used elsewhere**
- Other knowledge gained?
- No “collapses”
UBC Graduates Sustainability Attributes

**STUDENT ATTRIBUTES**

- **Holistic Systems Thinking**
  Everything is connected

- **Sustainability Knowledge**
  Understand the context, know the challenges

- **Awareness & Integration**
  Connect what I know with what you know

- **Acting for Positive Change**
  Contribute to co-creating a better future
Operational Academic Institutional Culture Change

Uni as Agent of Change

Campus as Living Laboratory
Limits of the Sustainability Storyline

• Harm reduction
• Damage limitation
• Mitigation
• Cutting back
• Sacrifice
• No one wants to jump UNDER the band wagon
STEP 1
Understanding the Greening Process

STEP 2
Planning for Greening TVET

STEP 3
Implementing, Developing & Assessing

STEP 4
Monitoring & assessment
Domain Framework for Whole System Approach to ESD
Greening Campus
Greening Curriculum
Greening Research
Greening Workplace & Community
Greening Institutional Culture
1.1 Policy

• A systemic approach to implementing ESD priorities is reflected in the system’s strategic planning, asset management, policies and school improvement plans.

1.2 Decision-making

• The system and schools embrace a transparent, inclusive, participatory approach to decision-making, involving all partners.

1.3 Finance and Budgeting

• Financial support for ESD initiatives is fiscally responsible, adequate for the expectations and a priority.

1.4 Monitoring and evaluation

• Assessment strategies measure progress in systemic implementation of ESD programs and initiatives.
2.1 Curriculum

• All curriculum resources reflect the cross-curricular focus of ESD and the continuity of scope and sequence across and within all grades, and through integrated courses of study.

• All curriculum documents are inclusive of different disciplines, cultures, and perspectives, including indigenous knowledge and worldviews.

• ESD resources are provided for teachers including a variety of media, sample units of study, course profiles, teaching guides, electronic and text based resources.

•
2.1 Curriculum

1 Central resources do not provide an ESD focus.
2 Resources reflect an ESD focus in some subjects.
3 Resources reflect an ESD focus in all subjects and grades.
4 ESD is identified as priority in all resource documents and across all grades. A clear scope and sequence across grades and within grades is identified. Schools offer multi credit integrated courses of study.
5 All curriculum resources reflect the cross-curricular focus of ESD and the continuity of scope and sequence across and within all grades. and through integrated courses of study.
2.2 Teaching
• Pedagogical approaches facilitate participatory and learner-centered education that develops critical thinking, active citizenship, systems thinking, inquiry, active learning, problem-solving, futures thinking, emphasizing both a local and global contexts.
• Natural and human-built environments are utilized as sites of discovery and active learning.

2.3 Learning
• Transparent assessment mechanisms monitor student achievement in ESD, including action learning approaches.
• Schools provide an inclusive learning environment that fosters the consideration of alternative perspectives, worldviews and ways of knowing, including Aboriginal, in order to clarify values and taking an informed position.
• Schools provide a safe and supportive learning environment in which staff and students share responsibility for what is learned, how it is learned and how it is assessed.
3.1 Leadership
• System and school administrators demonstrate commitment and leadership in the implementation of ESD across the system.

3.2 Professional Development
  – Professional development (PD) provides teaching staff with ESD competencies, including knowledge, skills, perspectives, pedagogical approaches, and using ESD as a theme to contextualize learning.

3.3 Human Resources
  – ESD competencies are addressed in performance appraisals and hiring policies.
  – HR policies for all system staff support ESD capacity building, mentoring, collaborative and lifelong learning.
  – Staff are recognized and rewarded for ESD leadership.
4.1 Facilities

– Sustainability principles are applied to the design, construction and renewal of school buildings, including innovative financial models.

– Schools structures and outdoor spaces are “facilities that teach sustainability practices.

4.2 Operations

– Sustainability principles apply to all aspects of school management, procurement and resource use.

– Sustainability principles are incorporated in transportation decisions.

– Audit tools are used to assess impacts and improve efficiencies as a result of sustainable practices.
5.1 Parent and Community Partnerships

- Parents and the community are actively engaged to address local sustainability issues through community projects and/or partnerships.

5.2 Learning

- Cooperative education supports ESD partnerships with the community.
- Opportunities exist to engage parents and the community in the practice of ESD principles.
Sustainable Development Goals (SDGs)
Sustainable Development

PEOPLE
End poverty and hunger in all forms and ensure dignity and equality

PLANET
Protect our planet’s natural resources and climate for future generations

PROSPERITY
Ensure prosperous and fulfilling lives in harmony with nature

PARTNERSHIP
Implement the agenda through a solid global partnership

PEACE
Foster peaceful, just and inclusive societies
SDG Difficulties in Wealthy Nations

Goals 1 and 2. End extreme poverty and hunger

Goal 10. Reduced inequality within and among countries

Goal 12: Sustainable Production and Consumption
The Curriculum Castle

- History
- Geography
- P.E.
- Science
- Music
- Art
- Language
- Math
- Economics

- AIDS ED
- Peace ED
- Ethics
- Dev ED
- Racism
- Env. ED
- Religion
- Pop ED
- Family Studies
- Anti Smoking
- Disaster

Social Studies
Competing Demands and Options
On
Our Ed. Systems

Our Education Systems

- SDG/EFA Incheon
- GNP ETC.
- Quality Ed. PISA
- International Obligations
- Employability
- Public Expectations
- Cultural Survival
- Teacher Capability
- ESD-GAP
Presenting ESD

• Awareness of the issue
• Understandable, digestible and manageable
• A “must-have/do”, popular choice
• Ethical
• Seen as “Do-able”
• Exemplars from prestigious sources
• Alignment with the right people
• Cost saving or affordable or prestigious
• An opportunity verses a problem

Tony Pigott – CEO J.W. Thompson
# Bloom’s Taxonomy and ESD

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>Knowledge</td>
<td>Comprehension</td>
<td>Application</td>
<td>Analysis</td>
<td>Synthesis</td>
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<tr>
<td>Remember previously learned information</td>
<td>Demonstrate understanding of facts</td>
<td>Apply knowledge to actual situations</td>
<td>Break into simpler parts to find generalizations</td>
<td>Compile ideas into a new whole or alternative solution</td>
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<tr>
<td>Define the principles inherent in sustainable development</td>
<td>Give example of an extreme unsustainable practice</td>
<td>Calculate the solar gain of your school roof on summer solstice</td>
<td>Identify an emerging trend in unsustainable practice</td>
<td>Compile the total ecological footprint of your institution</td>
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Learning Perspectives

More Traditional/Common –
• Learning as “acquisition” model
  Knowledge, solutions, true/false right/wrong
Knowledge, Comprehension, Application (BLOOM 1,2,&3)

Analyzing
• finding evidence supporting a generalization
• generalizing from found evidence
  (BLOOM 4)

Synthesis, Evaluation & Creating
• Learning as meaningful “creating” and “engagement” model
  ambiguity yet acting, assuming responsibility, leadership,
  (BLOOM 5&6)
  (ALSO VERY SIMILAR TO PISA 6 LEVELS)
ESD “Wicked” Issues and Learning

- Creating & Engaging
- Analysing
- Knowing
Seven Dimensions of Ed. Quality

- Effectiveness – stated educational aims are met.
- Efficiency – economic considerations,
- Equity – issues of access to education for all people
- Responsiveness – meeting the needs of individual
- Relevance – usefulness to learner - lifetime
- Reflexivity – ability to adjust – change/uncertainty
- Sustainability – future & present / global & local acceptance of responsibility
• ESD pedagogies have been in practice within different disciplinary traditions for years. These pedagogies are now in use in interdisciplinary contexts and applied to pressing issues of sustainability.
ESD learning processes encouraged learners to:
• “ask critical reflective questions,
• clarify values,
• envision more positive futures,
• think systematically, respond through applied learning, and
• explore the dialectic between tradition and innovation”
ESD Pedagogies

• Pedagogies associated with ESD stimulate students to ask questions, analyze, think critically, and make good decisions. Such pedagogies move from teacher-centered to student-centered lessons and from rote memorization to participatory learning (UNESCO, 2012a).
ESD pedagogies are often place-based or issue-based. They encourage critical thinking, social critique, and analyses of local contexts. They involve discussion, analysis and application of values. ESD pedagogies often draw upon the arts, using drama, play, music, design, and drawing to stimulate creativity and imagine alternative futures. They work towards positive change and help students to develop a sense of social justice and self-efficacy as community members. (UNESCO, 2012a, p. 15)
“SCHOOLS THAT TEACH”

• Integrate academic and facility efforts

• Use technology to save money

• Use technology for student engagement and learning
Sustainability Mandala

- **Grants & Rebates**
- **Retained Savings**
- **Improved student engagement & learning outcomes**

**Incentives**

- **Policy**
- **Goals and Targets**
- **Legislations & Restrictions**
- **Strategic Plans**

**Regulations**

- **Behaviour change curriculum resources**
- **Professional Development & Training**
- **Transformative education processes**

**Software**

- **Use of “Green” technologies**
- **Retrofitting**
- **Green building designs**
- **Sustainable options for transport, energy, water, waste**

**Hardware**

- **Government**
- **Business**
- **Community**

**Governance**

- **Plan**
- **Partnerships, Alliances, Networks**

**Outcomes**

- **Sustainable**
- **Future**

- **Enough**
- **For all**
- **Forever**

**Vision**

- **Sustainable Principles & Values**

**Culture of Sustainability**

- **Review**
- **Do**

**Educational**

- **Environmental**
- **Economical**
- **Social**