

## Climate Change Education (CCE)

**"Climate change education is about helping learners understand and address the impacts of global warming today, while at the same time encouraging the change in attitudes and behaviour needed to put our world on a more sustainable path in the future"** Koichiro Matsuura, Director-General, of UNESCO (UNESCO 2009, p3)

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## Why CCE?

- Climate Change education is important for a number of reasons. Three key reasons are:
  - Relevance** – change is here in PICs and in many instances we can visibly and physically see the changes happening around us
  - Life-skills** – students need to learn the life-skills required for survival in their island homes in order to build resilience
  - Climate change **impacts** on *all* spheres of life – not just environment and both teachers and students need to be made aware of this

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## Challenges to CCE

A serious obstacle for learning and teaching about climate change in schools is that, across the disciplines, teachers tend to hold back from presenting it as a contested issue, awash with conflicting positions and controversy. *The dominant approach is a teacher-centered one involving lectures from the front of the class in which a body of orthodox knowledge (i.e. facts around which there is a reasonable level of consensus) is presented.* Such an approach **stifles dialogue**, offering no useful process through which students can jointly work through their own misconceptions (and, hence, internalize their re-learning). It also **denies students the opportunity to develop enquiry skills** and hone their critical thinking around the issue by being confronted by conflicting and often controversial arguments (McBean & Hengeveld, 2000, 22-3). (Cited in Selby 2012, p4).

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## Is CCE only about Environment Education?

**NO!**

- Predominant approach to CCE and ESD is an over-emphasis on Environment Education (EE) and on science:
- This approach is:
  - a compartmentalized western approach;
  - an injustice to students; and
  - does not provide holistic learning opportunities essential for **behavior change** education

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## So, how should we teach CCE?

- Advocating the integrated, across-the-curriculum approach
- Why?
  - It is holistic
  - Students are able to connect the dots between reality and the multifaceted dimensions of their lived realities; and
  - Provides for creative and critical thinking necessary for higher order thinking;
  - Leads to rethinking prior knowledge, worldviews, attitudes, values and beliefs i.e. for Behavior Change

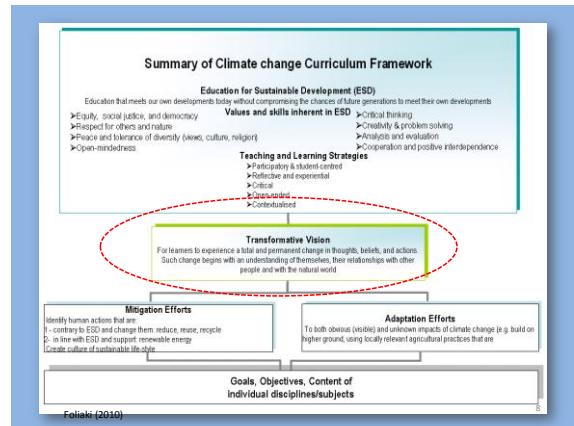
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How do we apply the integrated approach to CCE?

- Foliaki (2010) proposes a CC Curriculum Change framework to CCE.
- Premised on ESD with a transformative curriculum goal
- Links well with the vision of developing critical masses or *consensitization* (Friere, 1970) with a view towards emancipatory social change
- At the core: CC is about people in relationship with the environment
- How do we teach this? Across-the-curriculum, i.e. linking between subject areas (multi-disciplinary approach) rather than a pure scientific one
- Why? Values education i.e. to bring about significant changes in attitudes and behavior requires a humanistic approach that connects *people* and draws on the human experience (incl. emotion)
- Importance of prioritizing "learning experiences" rather than rote-learning (lower-order thinking/ technical knowing)
- Moving from technical knowing through hermeneutic (communicative) knowing to critical knowing (high order thinking)

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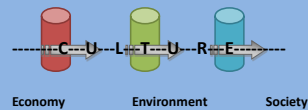
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ESD Framework



ESD advocates argue that culture is the underpinning thread that connects each pillar forming a model that is cohesive and holistic.

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Dimensions of the integrated CCE

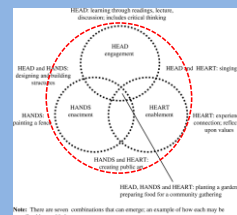
- **Ecological** – emphasis on the environment
- **Social** – how does CCE impact on human societies?
- **Cultural** – what is its impact on cultural practice?
- **Economic** – how does it affect the economy?
- **Political** – how will it affect political decisions?
- **Spiritual** – examining notions of connectedness through both IKS and faith-based religious affiliations

If we are encouraging a *holistic* learning experience then we need to think about all six dimensions and how they interconnect through and across traditional subject-discipline areas e.g. Sciences, Social Sciences, Natural Sciences etc..

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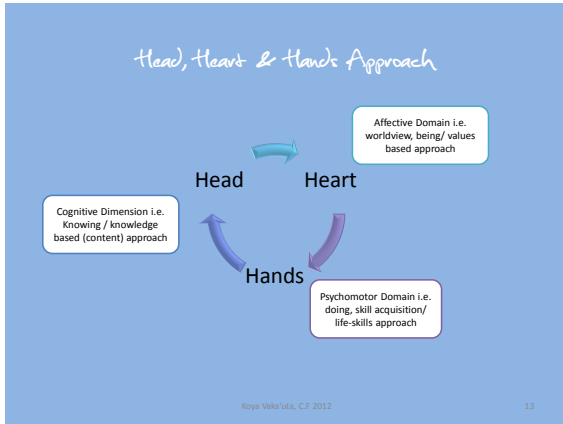
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Promoting Holistic learning experiences: Head, Heart & Hands.



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### Important pointers for developing an integrated CCE program

- Education *about* and Education *for* carry distinct agendas

Critical Question:  
**Climate Change Education for what?**

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### Education about...

Education **about** CC (or about behavior change) will ultimately:

- focus on facts (cognitive domain);
- prioritize rote learning;
- be well suited to traditional pen-paper tests and examinations; and
- if skill acquisition is built into Education about... it is again about measuring student performance against a standard predetermined benchmark through standardized testing/assessment

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### Education for...

Education for Behavior change is **Transformative Education**

- about beliefs, attitudes and values (affective meets cognitive domain);
- Focuses on contextualized participatory learning experiences;
- Allows for alternative assessment such as project work, research, portfolios, creative tasks etc...
- Skill acquisition may be built easily into Education for... as there is a value for the learning process rather than fixating primarily on product (exam results).

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### CCE for Pacific peoples in the Pacific islands

- Is ultimately about survival and continuity
- Connects with IKS/TK
- Must prioritize resilience and life-skills for survival
- Should go beyond book-learning
- Needs to be locally driven
- Should shift focus from pen-paper tests and examinations
- Begins with self-reflection
- Values prior knowledge (constructivist)
- Is empowering and participatory

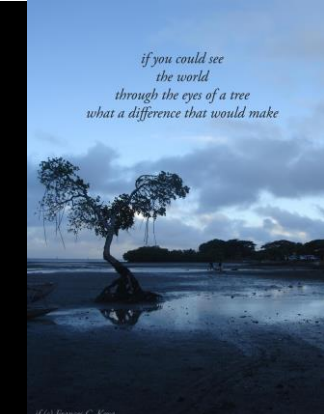
(see, Tokyo HOPE Declaration i.e. is Holistic, promotes Ownership, ensures Participation, and is Emancipatory)

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### The need for partnerships

Confronting the impact and severity of climate change through education also calls for *partnerships between schools, students, parents and community*. Some climate change researchers suggest that while adults may be more reluctant to confront fundamental lifestyle changes and take pro-environmental action, young people are more ready to accept radical change (Selby 2012, p12).

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*if you could see  
through the eyes of a tree  
what a difference that would make*

*if © Frances C. Kinn*

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