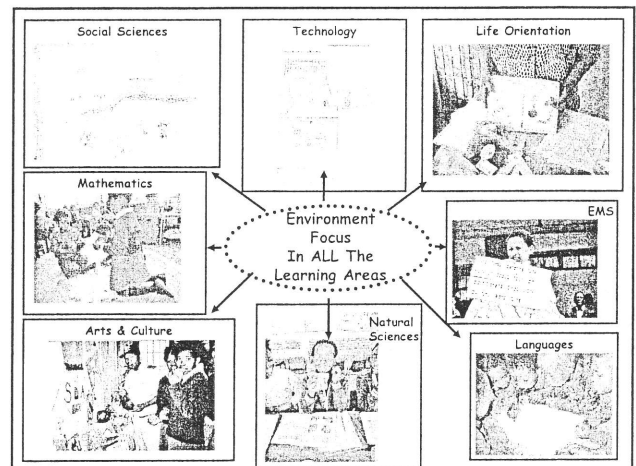
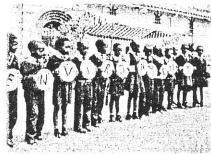


How can EE officers design programmes to support the implementation of the environmental focus in the current curriculum?

Ingrid Schudel

Rhodes University
Environmental Education and
Sustainability Unit



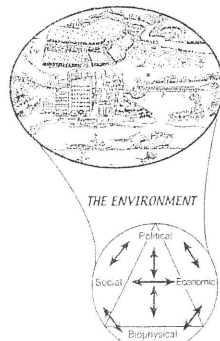
Curriculum opportunities

- First principle - **interrelationship** between social justice, a healthy environment, human rights and inclusivity
- Purpose, features and scope of the Learning Area:
For example EMS is concerned with 'the phenomena of society's unlimited needs and wants in the face of limited resources. At the same time it takes into account the legacy of inequity and its consequences for both the economy and South Africa's citizens'.
- In the critical and developmental outcomes: E.g. Critical Outcome 6 requires learners to 'use science and technology effectively and critically, showing responsibility towards the environment and the health of others'.
- In the Learning Outcomes: For example in the Social Sciences one of the Geography LO's is 'The learner will be able to make informed decisions about social and environmental issues and problems'. In the Natural Sciences LO3 requires learners to 'demonstrate an understanding of the interrelationships between science and technology, society and environment'.

- In the assessment standards: E.g. in the Arts and Culture Learning Area, Grade 8, LO2: AS3, the Learning Outcome is achieved when the learner 'Uses the arts to demonstrate an awareness of environmental concerns'.
- In the core content: In EMS e.g. one of the foci for Grade 3 is 'the relationship between the economic and physical environment'. In NS concepts and knowledge related to 'biodiversity, change and continuity' are required for all phases in SS e.g. Grade 8 and Grade 9 have knowledge foci of 'natural resources' and 'sustainable use of resources' respectively.
- Note that if your environmental focus does not emerge from specified core content, the learning outcomes or the assessment standards, then it should be informed by the chosen context. The NCS policy documents state that contexts of lesson plans should be informed by learners and local needs.

Where should we focus our energies?

- Biophysical (Eco and built)
- Social (People living together)
- Economic (Jobs and money)
- Political (Democratic governance and sustainable development)
- "Environmental education is everywhere and nowhere" (Rosenberg, 2004)
- Nexus of the social and the ecological



Interrelated dimensions of indigenous plant harvesting

- Used by San and Xhosa for curing stomach ailments, dysentery, blood in stools ...
- R3-R15 per ton of roots paid to locals
- 20 tons removed from Eastern Cape
- Export of indigenous knowledge
- Unsustainable and indiscriminate harvesting
- Threats to groundcover, pollinators, etc.
- Exploitation of unemployed
- Political 'clout' lies in arresting the locals



Pelargonium reniforme

Thinking about learning

Awareness raising

- Getting conservation messages across (campaign-type approaches)

Experiential learning

- Dialogue -> encounter -> reflection
- Nature encounters (putting people in touch with nature) -> auditing and hands-on activities

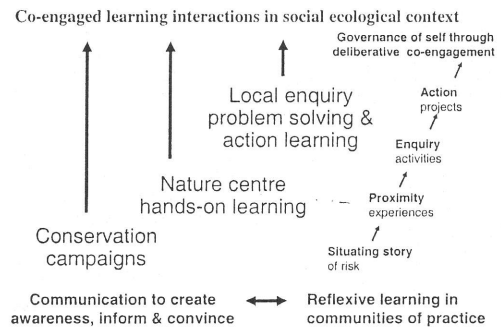
Problem-solving & Action competence

- Where action is directed at solving an environmental problem and initiated by learners themselves (Jensen & Schnack)

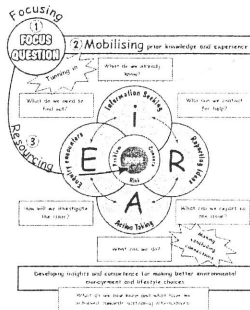
Social learning

- "situated processes of reflexive learning interaction around tensions, discontinuities and risk in local context" (O'Donoghue et al).
- Collaborative change process in which shared meanings and joint actions emerge -> for this learners need to "transcend their individual frames, so that they can reach a plane where they are able to find each other and create enough 'chemistry' to feel empowered to work jointly on the challenges they come to share" (Arjen Wals)

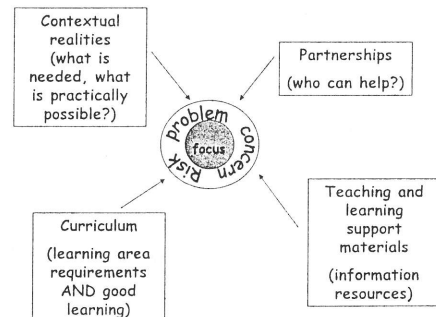
An overview of outline schemes for defining and guiding environmental learning interactions (Rob O'Donoghue – July 2008)



Active learning framework



Choosing your focus



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- Given the contextual and complex nature of environmental issues, how can we find reliable, useful information?
- Consider the literacy and numeracy challenges in SA
- How is information used?

Sources:

People
Places
Textbooks
Newspapers
Internet



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- Audits, checklists, mapwork
- Emphasis on local enquiry
- Dependent on mathematical and research skills
- How to make meaning of enquiries ...

Enquiry types

- An audit
- An ecological study
- An observation (recorded as a mapping exercise, series of photographs or pictures or in a descriptive essay).
- A survey using interviews or questionnaires



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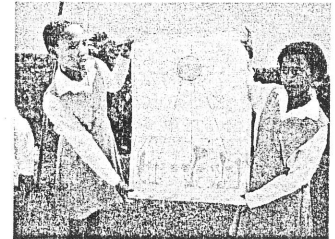
- Action vs activity
- Actions direct or indirect?
- Resourcing projects (capacity building vs depletion)
- Labour vs learning

Action examples

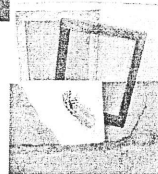
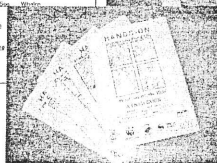
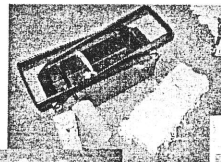
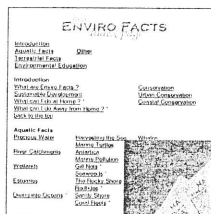
- solving environmental problems e.g. repairing leaking water pipes, preventing soil erosion,
- informing community about environmental issues and risks
- writing letters or articles to lobby authorities to make changes
- drawing up visions of a better world
- Supporting school environmental policies for better environmental management
- making environmentally-responsible changes in home, school or broader community

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- Reflection on what has been achieved
- Making meaning



Learning and Teaching Support Materials



Partnerships ^{RU1}

- DoE
- Government Departments
- EcoSchools
- NGOs/CBOs
- HEIs

