

Learning Environments for a Sustainable World

by Ass. Prof. Vanderley M. John

The center of the world economy is shifting from producing material goods to delivering non-material items (services, software). It is becoming a knowledge based society that changes very fast. Creativity and aesthetics are keystones of this new society. Additionally, life expectancy is growing. So people are living longer in a knowledge based society which changes very fast. In such scenario, education is becoming more important and will be life-long. Information is now abundant, and a school room where the teacher transmits information to a almost passive students group is obsolete.

Despite this general tendency, an important fraction of child and adults that leaves in poverty in developing nations, are not merely excluded from the modern knowledge based society, but they do not have access to the benefits of the goods production society. Many of them are completely excluded from any formal educational systems.

Education for social, environmental and economical sustainable development is crucial, since a dramatic change of culture is needed. Since every region has its own Agenda 21, the educational demands are very different demands for every different reality.

Education is preparing for life, and every person will have its own set of needs. For citizens of developed countries, as well for members of the economical elites from developing countries, leisure is becoming an important part of life, so school must consider that fact. Citizens from developing countries need perhaps other, more basic abilities to improve his countries handicap, among them certainly is creativity and entrepreneurial ship.

Education must reinvent itself as society and knowledge changes. School buildings are part of the learning environment, so they have to be able to change too. Based on those concepts, a sustainable building school can be:

- a) Flexible or adaptive – able to be changed to as the educational needs the future, including changing or receiving IT infrastructure, walls,
- b) Inclusive – allow to fulfill a variety of people with specific needs – including elderly people in continuum education programs, give support of different activities and group sizes;
- c) Multifunctional – provide infrastructure for the community – recreational facilities, cultural center, continuum education;
- d) Environmentally efficient;
- e) Educative – allowing the community to learn about the role of buildings in the sustainable development, for delivering actual data of the environmental impacts of the school building itself;
- f) Economically efficient – with a low life-cycle cost, especially in developing countries;
- g) Multiplex – able to contain several small schools in a big building;
- h) Interactive to encourage creativity.

Since every community has its own culture and needs, in order to achieve high efficiency, school planning must be collaborative.

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