



About Us

"Bringing Hope to the Rural Disadvantaged"

Education & Scientific Literacy

What is important about Educational and Scientific Literacy? The 1982 MacArthur "genius" award recipient, Robert Moses, said that "math literacy and economic access are how we are going to give hope to the young generation." Further, Robert Moses believes that proficiency in science and math are key to "successful citizenship." Who is Robert Moses? He is a math teacher who for 44 years has lived his philosophy about equal opportunity for disadvantaged American kids. Are there others convinced of the importance of science and math? Yes. One example comes from the 1994 "Clinton Report," where it is stated that "scientific and technical literacy are required so that citizens can both make informed decisions and acquire appreciation of science."

For education to be effective, its communication must be an interactive process. This is especially true with science literacy, since science is NOT "common sense" to most. To change this view of science, one must communicate science that is relevant to a population and its culture.

Relevancy is important as it is a foundation on which to build overall science literacy. Participants involved with science education are actively drawn into seeking information to understand real life situations and problems. Therefore, they are further brought into the educational and scientific literacy process with a reference to an already existing piece of knowledge or experience.

Cultural views can serve to either complicate or enhance education, as all people seek relevance for their "understanding." To deny someone's cultural background is to deny who they are as a people. To include a person's cultural background allows for "learners" to see relevancy all around them.

However, without an early education foundation, the advancement of educational and scientific literacy will be tenuous at best. With this in mind, early childhood development centers will be an important aspect of the Hands-On Science Centers established by CESLA. A critical part of these centers will be programming, with the use of toys as hands-on exhibits. CESLA plans to establish the first "Children's Hands-On Science Center" in sub-Saharan Africa, at the UNIZUL Science Centre in KwaZulu-Natal.

Through the use of sound educational principles, "critical learning tools," early childhood interventions, and Hands-On Science Centers, CESLA is striving to bring long term hope to rural areas, to people who have been traditionally disadvantaged. The ultimate aim of this organization is the advancement of rural learners into science and technology careers.

CESLA further understands that to fully implement its mission, it will be necessary to address a variety of general health care concerns including AIDS.

UNIZUL Science Centre

The photographs that make up the short video on the website were either taken at the UNIZUL Science Center, or the UNIZUL Science Centre display area at the "Zululand Expo."

TOYS in use by CESLA

The photographs that make up the short video were just a few of the many toys that CESLA plans to use. These types of toys, while common in much of the world, are a rarity in sub-Saharan Africa. The lack of progressive play strategies and the absence of educational toys, result in educational deficits in the targeted rural disenfranchised populations.

Furthermore, the use of toys as manipulatives, prepares the "learner" to better utilize the exhibits in a hands-on science center. Also, in a ever growing technological world, the ability to use a variety of manipulatives aids in establishing critical thinking processes, helping to prepare graduates to enter science and technology careers.