Another Point of View

A Critique of "Alternatives to National Standards for Environmental Education: Process-Based Quality Assessment"

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Upon invitation of the editor of the *Canadian Journal of Environmental Education*, some thoughts, contemplative disagreements, and hearty concurrences are offered in relation to the thought provoking article produced by Wals and van der Leij entitled "Alternatives to National Standards for Environmental Education: Process-Based Quality Assessment." While it is always risky to make pronouncements without having had opportunity to personally interact with the writers, especially in such an international arena, there still might be some utility in a response arising from perspectives gained during 35 years of participation in the field of environmental education.

The basic premise that national standards cannot be meaningfully established is receiving more support than the authors may have originally surmised. That premise apparently led to their interesting argument attempting to refute such establishment. In fact, it appears that the goal of establishing national environmental education standards is apparently falling of it's own weight. It should be noted that the North American Association for Environmental Education (NAAEE), in an attempt to draft and publish a "National Environmental Education Standards" document, has already backed off and changed the name of their publication to *Environmental Education Materials: Guidelines for Excellence* (Simmons, 1997). Following a variety of debates at the 25th meeting of NAAEE in Burlingame, California it was apparent that consensus on national standards was not possible.

The contention that ". . . such standards should focus on the quality of the learning process and not on some kind of learning outcome . . ." (Wals & van der Leij, 1997, p. 15) seems shortsighted in relation to the main goal of environmental education which is generally defined to be improvement in the "quality of life" (R.

Roth, 1973). A goal such as improved quality of life, I suggest, will have far greater utility as a guide to the process of environmental education. It will also guide the concomitant conceptual base that represents the transmitted cultural heritage, and the biophysical, socio-cultural, change and management concepts that are essential tools in struggling toward achievement of this goal. Further, the goal, an improved quality of life, seems to be consistent with the definition of education "for" the environment first proposed by Lucas (1972) and that appears to be well accepted.

Most would probably agree that we are long past the intense debate about the definition of environmental education. Even the goals and objectives of environmental education appear to have a high degree of consistency as presented in numerous national and international publications. Where the disagreements begin seem to be in the nature of evidence one will accept in relation to the various goals and objectives specified. Hence the argument posited by the authors in their introduction: "These disagreements reflect different positions as to what environmental education is to expose learners and what the result should be" (p. 7).

The arguments proposed by Wals and van der Leij seem to resolve into representations of "different world views on the role of both science and education" in society (p. 9 as cited from Sauvé, 1996). Few would disagree with the presuppositions identified by the authors, namely that: "environmental education has the potential to lead educational reform," and that "environmental education is viewed as a participatory process that can lead to educational change . . . ." As the authors further indicate: "Educational change can contribute to the improvement of relationships between people and between people and their environment" (p. 10). It is precisely here that Robottom's (1993) argument for understanding the "contextual" nature of environmental education becomes so important for the profession to consider.

So where, one might ask, is there disagreement with the authors' propositions?

The disagreement with the authors' contentions resides in the statement that "When accepting the premise that the above 'paradigms' are ideologically different, one also accepts that they are incompatible" (p. 13). In educational practice it can never be an

"all or none" game. Children and adults do not learn in a smooth linear fashion. Therefore, educational practitioners constantly find themselves needing to try a wide array of methods to reach the variety of learners in their charge. Both behaviouristic and non-behaviouristic strategies are both needed. The trick is to decide when to use each. A confusing array of abilities and previous life experiences accompany each and every learner. Issues of left brain vs. right brain learning style, sensory-motor as opposed to abstract learning styles, along with "behaviouristic" vs. "non-behaviouristic" approaches are all decision making dimensions for the educational practitioner when confronting a group of learners for the first time.

Assuming that "non-behaviouristic" criteria are somehow more democratic than "behaviouristic" criteria, along with the use of words such as "indoctrination" and "undemocratic," demonstrates a seeming lack of understanding of the paradigm being criticized. It can be argued that the "behaviouristic" paradigm can also be "participatory *process*" based (p. 10), lead to "value clarification" (p. 11), and encourage students to take "a critical stance . . . by promoting discourse, debate and reflection" (p. 11). In short, "critical thinking" is a goal of education with which the process/product spiral of the scientific enterprise is intimately linked. The root of the dilemma may just be that, a better balance between "process" and "outcome," and this may be what the authors are asking be established. With that, I would have little difficulty.

The implication that the "learner determines to a great extent the content and direction of the learning process" (p. 18), and not the educator, in reality condemns learners to repeat all of the mistakes of the past. While conceptualization occurs in the minds of the learners, the teacher's role is to stimulate the necessary thought processes. Retracing the entire spectrum of the development of our knowledge is simply not necessary. The process of "science" has been useful in producing the products resulting from the scientific enterprise, the conceptual schemes, concepts, principals and facts that comprise our fund of knowledge. Science thus applied is indeed a strategy designed, to quote one of the often heard definitions of science, ". . . to command more of the hidden potential of nature." In short, "learning for knowing" can and must take place as a prelude to "learning for being." The internalization

process of concept learning and application would seem to be the bridge between "knowing" and "being" that is deemed by the authors to be the end goal.

Nelson and Hayes (1986) suggest that behaviours are a function of both environmental variables (stimuli and consequences) and organism variables (physiology and past learning history). This coincides with the environmental behaviour model proposed by Hines, Hungerford, and Tomera (1986/87) that includes personality factors, cognitive variables, intention to act, and situational factors, each of which is likely to interact with all others. Add to this the implications of Maslow's often cited contribution of moving through the various stages of need from "survival" up to "self realization" and one can realize how each individual's struggle and behaviour will be further influenced by the socio-cultural milieu within which they live. In such a context does anyone seriously believe that we can be precise in behavioural specification and prediction when faced with such diversity? Certainly not at the global level. At best each society will have to produce their own approaches to achieving their conception of a "quality of life." Decrying "the unequal distribution of wealth [and resources], the uninhibited striving for economic growth, and inadequate education" (Wals & van der Leij, 1997, p. 20) will also be of little use within such diversity.

Education is of course a life-long process. The four goals of process education indicated by the authors as: (1) encouraging students to think critically and autonomously; (2) develop the necessary communicative competencies; (3) hear a variety of theories; and (4) participate in a range of activities are, in my view, also compatible with the "behaviouristic" model. Achieving these goals through the skills of "constructing," "transforming," "developing," and "becoming emancipated" appear to be consistent with the expectations of the "behaviouristic" model as well. Such attributes are usually included in the concept of "critical thinking" as described in many of the works in scientific literacy.

The authors provide useful and thought provoking criteria for "Learning Enhancement" in their Table 2 that would seem to blend quite well with much of good educational practice. While criticism of Hungerford (1996) is indicated in the article, the importance of science (including the social sciences) in environmental education remains as an essential and useful strategy when broadly applied

as part of the teaching/learning process. The social sciences do subscribe to the same assumptions and operating conceptions of science. Admittedly the social sciences seem to get into some difficulty however regarding the assumption of "consistency," because humans change their minds frequently. Even so, the rules do apply!

Critical thinking, scientific observation, replication through research, and decision making based on sound data and ecological understanding are essential in an era of convincing sound bytes and public relations wizardry. Such intellectual skills are essential in encouraging democratic approaches to problem solving and undercutting the "indoctrination" that is also anathema to good science and education in my view.

Research evidence seems to clearly indicate that knowledge of ". . . and skills in using environmental action strategies appear to facilitate responsible environmental behavior and can be addressed through educational practice (formal instruction)" (Hsu, 1997, p. 186; also substantiated by Hungerford & Volk, 1990; Marcinkowski, 1991; Ramsey, 1993). Hsu (1997) is finding a similar relationship among teachers in Taiwan in a study about to be completed. Teachers appear to be more effective in teaching about environmental issues if they exhibit the skills associated with environmental problem solving and "responsible environmental behaviors (REB's)." It is equally apparent that each culture will need to develop its own unique approach in defining those appropriate REB's or behaviours. Importing a ready made program from the U.S. will simply not do.

As we collectively and individually attempt to move toward our concept of "quality of life," goals must be measurable, objectives need to be taught/reached in a logical manner and within a reasonable period of time, and the impacts should be critically and morally evaluated. And yes, public (professional/private) comment, judgment and assessment of effectiveness of our models will continue with increasing importance in this era of accountability and competition for increasingly scarce funds and resources.

The best that is likely to emerge will not be, "national standards for environmental education," but "minimum competencies" that will include many of the critical thinking and operational skills now being developed as "responsible

environmental behaviors-REB's" (C. Roth, 1995) or perhaps as "citizenship behavior" (Hungerford & Volk, 1990). One standard will certainly be neither possible nor desirable. Educational practice, including the methodologies for environmental education, will most likely continue to emphasize many of both the "behaviouristic" and "non-behaviouristic" attributes described by Wals and van der Leij. There can be no one world view, but the overall goal of achieving "quality of life" will increasingly become utilized, and educational and communication strategies will continue to be as diverse as the ecosystems of which we are a part.

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Notes on Contributor

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