Changing the Organizational Paradigm: The Yukon Experience

By Robert Sharp

About 20 years ago, a number of Yukon schools took a different approach to outdoor education and outdoor pursuits. During the 1970s and 1980s, most Yukon high schools and junior high schools offered a course called Outdoor Education. These courses fit into the conventional blocks in a school timetable. Outdoor activities longer than these blocks of time typically took time from other teachers. This created a constant source of school tension in which students often fell behind in the other subjects and were required to play "catch-up" on their own time. This approach did little to link the outdoor activity with other subjects or to gain support from the larger school staff.

In the early 1990s, the Yukon Department of Education proposed an alternative model. This model changed the organizational paradigm for secondary schools. The proposed organizational model more closely followed the organizational plan used in kindergarten. This involved a cohort of secondary students together for a semester addressing a wide range of subjects with the same teacher, focused on an overriding theme. A wide variety of instructional styles was incorporated, including activities that integrate learning outcomes of the subjects. There are presently more than a dozen of these programs offered in Yukon schools.

For the programs that include an outdoor education component, the "school-within-a-school" model addressed the problems related to the classes missed by outdoor trips and provided necessary flexibility in timetabling since the teachers could shift their own time allocations based on studies, activities, student abilities and program needs. This approach raised other instructional time and methods concerns. These concerns were addressed by developing a range of "field studies" that took students into outdoor activities that required application of specific skills, knowledge and attitudes central to the other subjects offered in the "school-within-a-school" program.

The field studies approach often takes on the mantel of place-based education since many of the field studies are centred on responding to community concerns, studying and collecting data and proposing possible remedies to the community-defined problem. Addressing "real" topics and finding ways to apply the prescribed learning outcomes to these studies have proven to engage students in ways that secure knowledge and strengthen positive community attitudes. In this respect, including field studies with outdoor pursuits has been proven to be a successful educational approach.

The ability to fuse an outdoor activity with related field studies benefits the whole educational enterprise. The linking of field studies with an outdoor pursuit gives both the study and the activity additional meaning. In addition, field studies reinforce both labs and lectures in specific subjects. Courses such as geography, survey biology, quantitative chemistry, ecology and environmental studies lend themselves to field studies that link with outdoor pursuits. The balance of this paper will describe one such program, describe a number of field studies employed in this program and highlight some of the long-term benefits of this program.

Experiential Science is a Yukon public-school program of studies for Grade 11 students. The program integrates Biology 11, Geography 12, Chemistry 11, Art 11, Field Methods 11 and Physical Education 11. The program features 35 to 40 days of field studies each semester and two days each week in Yukon College science labs. Field studies expose students to a wide variety of people associated with a range of resource management issues. Rigorous field methods, well-kept data and sound scientific methodology are the foundation

of the program. Students collect field data and analyze various aspects of study issues before developing strategies for addressing the topics. Students are excited and motivated by the range of challenging and often adventurous studies, the importance of their studies, and co-operative work relationships that develop during their semester in Experiential Science. Field studies resonate with those students who learn best experientially and in social contexts. Over the 18 years the Experiential Science program has been offered, students have consistently reported the short- and long-term benefits of the program. Many who struggled with conventional classes report on the success and enjoyment they found in the field studies approach to courses. In terms of conventional academic scores, students in Experiential Science consistently outscored all other classes taking similar courses.

The list of the field studies is extensive. Many have been ongoing studies spanning a number of years. The Experiential Science website outlines many of these field studies: www.yesnet.yk.ca/schools/woodst/experiential/field%20studies.htm. For example, included are an International Polar Year project monitoring a local lake that has undergone recent changes in water levels and water quality, sets of field studies related to salmon enhancement and habitat restoration projects, forestry studies on beetle infestations and regeneration rates, marine and stream monitoring projects, caribou habitat studies and many others. Students who were in the program more than 12 years ago are able to vividly describe the activities and studies they took part in. They report that their involvement in these studies had a significant influence on their subsequent studies and on the careers that followed.

Including field studies that complement academic studies with a variety of outdoor pursuits has proven to be a most successful model of education. It is a model that required moving away from conventional secondary school organizational patterns and developing organizational models that better reflect student engagement and how students learn. Many Yukon educators and parents believe that these models should be expanded and be accessible to many more students.

The Experiential Science 11 program is one of 12 similar programs offered in Yukon schools. Each has a different focus but follows a similar organizational plan: a cohort of students for a semester taking four to six courses within the semester. The programs include course offerings ranging from Grade 9 to Grade 12. The first of these programs, ACES 10, was developed in the late 1980s and proved to be so successful that the Ministry encouraged expansion in other subject areas. MAD 11–12 (music, art and drama), FEAST 11–12 and Experiential Science 11 followed within a two-year period. Over the past 17 years, eight more courses have been developed. All follow a similar organizational plan. They include OPES (Outdoor Pursuits and Experiential Studies 9), PASE (OPES in French), MAD 9–10, GLOBE 11, SASE 9, CHAOS (First Nations excellence program), Fabrics 11–12 and Haines Junction Experiential Science 11. Most of these programs have seen changes in teachers and course offerings but the central organizing themes have remained.

Bob Sharp has held various education positions in the Yukon over the past 43 years. He developed and taught the Experiential Science 11 program for seven years prior to retirement in 2001. During this period he was typically involved for 90 days a year in outdoor activities and field studies. He now works part-time with the Yukon Department of Education and Yukon College.