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Research Profile

Linking Communities Together

By Léonard Rivard

Throughout my career, I have become aware that researchers must constantly be alert to the possibility of underestimating the potential in what may appear at first glance to be a simple research problem.

I have recently been collaborating with the University of Manitoba's Centre for Research in Youth, Science Teaching and Learning (CRYSTAL) on a professional development project supporting science teachers in the Division scolaire franco-manitobaine (DSFM). Entitled *Linking Communities Together*, the project was originally designed to bring various partners together in a common enterprise with the goal of enhancing science teaching and learning. The partners include consultants from the Bureau de l'éducation française Division (BEF) at Manitoba Education, Citizenship and Youth, professors from both education and science faculties at Collège universitaire de Saint-Boniface (CUSB), and teachers and other support staff from DSFM. The project has also benefited from the unwavering support of central and school administrations.

Since Dr. Rodelyn Stoeber, a professor at CUSB, began working on this project, she has obtained several grants that have reinforced and extended the original project. She obtained a two-year *Francommunautés virtuelles* grant from Industry Canada for a project entitled *Petites écoles en réseau* (PEER), which means "small schools in a network." This project, which again involved a partnership among DSFM, BEF, and CUSB, uses cutting-edge technology to link up students and teachers in small isolated schools from all over the province. This enables teachers to share their expertise while co-teaching the Grade 9 Science program, and to create an effective virtual learning community.

In collaboration with another CRYSTAL team member, Professor Fernand Saurette from the Faculté des sciences at CUSB, the team was successful in obtaining a PromoScience grant from the Natural Sciences and Engineering Research Council of Canada to promote science among students. Studies have shown that fewer students pursue post-secondary education in these areas. Fernand developed a mini-composter that can be used in the classroom for studying decomposition, and Rodelyn has developed various Internet-based tools that students can use to share experimental data obtained from using the composter. The project has allowed classrooms across the province to study a biological process using a simple device while promoting important values related to protecting the environment and sustainable development.

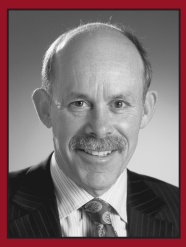
In July 2007, CUSB was awarded a five-year, million-dollar Community-University Research Alliance (CURA) grant from the Social Sciences and Humanities Research Council of Canada. I am the principal investigator and director of this research program on Francophone identities in Western Canada. Although the program encompasses nine different research teams studying various questions related to language, culture, and heritage, one project addresses the use of reading and writing in the science classroom. As such, this extends the important work begun with the CRYSTAL project.

Dr. Marianne Cormier from the University of Moncton and I have developed classroom strategies that can be used to enhance student comprehension of both print and digital science texts. The CRYSTAL team at CUSB will be working with teachers to support their use of these strategies in authentic learning environments. I am also collaborating with a colleague from the University of Alberta to develop effective classroom strategies for writing in the science classroom. Once again, these will be used in a professional development situation to support classroom teachers.

Research programs have a tendency to evolve over time and the result is often a far cry from the initial proposal. The initial CRYSTAL project proposal was very modest compared to what has become a multifaceted program involving many researchers from Manitoba and beyond. But it is not the destination that is important; it is the journey!

Profile

Léonard Rivard is a professor of science education and Dean of the Faculté d'éducation at Collège universitaire de Saint-Boniface, as well as Director of Research. He has also been a science teacher, consultant, and professor in Manitoba, and has worked overseas on various international assignments in Africa, Asia, and the Caribbean. His Master of Education focused on the development of Grade 10 Science instructional materials, and his Ph.D. examined the role of speech and writing with regard to learning science in the Middle Years. Over the last 20 years, his research has examined the use of various language-based strategies for classroom learning, comparisons of summary writing among secondary students across grade levels, and the acquisition of expert discursive competencies by college science students. More recently, his work has focused on supporting the professional growth of science teachers in Manitoba schools.



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