

## NARST '98 PROPOSAL

### Action Research Amongst Primary, Secondary and Tertiary Science Educators: Promoting mutual challenge and support.

#### Abstract

In order to promote mutualistic relationships, along with curriculum and professional development, amongst science educators in successive school divisions, elementary and secondary teachers of science and university professors of science and education were engaged in collaborative action research project over two years. Members cycled through stages of *reflecting* on their current perspectives, priorities and practices, *planning* - in conjunction with members of other divisions - new practices, *acting* on their plans and *observing* events associated with their enacted plans. Naturalistic data, including samples of students' work, teachers' repertory grids, nature of science surveys, interview transcripts, anecdotal records and journal entries, were collected. Steps to ensure trustworthiness of claims, including member checking and triangulation, also were taken. Results suggest constructivist, collaborative curriculum and professional development contributed to participants' improvements in practice, understanding of practice, situations in which their practice occurred and mutualistic relationships inherent in group interactions. Individuals developed more realistic understandings of the nature of science, new curricular priorities and approaches. Notable was some reversal of hierarchical relationships between university personnel and school teachers. Members came to respect each others' niches and, concurrently, recognize benefits gained through associations with a variety of others.