RAVI VAKIL, CORINNE JETTÉ, ANDRÉ DESCHÊNES AND KANWAL NEEL, Stanford, Concordia Native Access Engineering Program, Petit Séminaire de Québec, British Columbia Association of Mathematics Teachers
Panel: Mathematics in the Modern School: Goals and Challenges

Ravi Vakil: *Enrichment*

A significant minority of students are receptive to enrichment of some sort in mathematics: they are bright, keen, and willing to be inspired. For such students (as with others), math teachers can be a life-changing influence. I will discuss the following important questions: What precisely should we be telling students seeking enrichment? Should we be giving them depth or breadth? Inspiration or knowledge? Specific tools, or fuzzy "big pictures"? Are competitions good? Are puzzles bad? I may also describe some of the extra-curricular programmes set up for high school students, both here and in other countries, and relate some of the good ideas that people have tried.

Corinne Jetté: *Mathematics Education for Aboriginal Students*

André Deschênes: *À l'heure de la réforme*

L'Éducation au Québec est en pleine effervescence. Le Ministère de l'Éducation vient tout juste de présenter un nouveau programme de l'École québécoise largement axé sur les thèses socioconstructivistes. Implanté au primaire depuis quelques années, le nouveau programme sera obligatoire au premier cycle du secondaire dès septembre 2004. L'enseignement des mathématiques, comme des autres disciplines, sera modifié de façon importante et les ordres d'enseignement supérieurs, collégial et universitaire, auront des ajustements importants à opérer. Voilà tout un défi pour les toutes personnes qui enseignent les mathématiques. Un avenir sombre ou ensoleillé?!

Kanwal Neel: *How does a teacher make their math class interesting and improve numeracy?*

Numeracy is Not just Numbers. One must teach Number Sense, Spatial Sense, Statistical Sense, and Sense of Relationship; Use Multiple Intelligences to teach and learn numeracy; Make students communicate their thinking and reasoning for any incorrect answers; Encourage discussion of mental strategies within the curriculum, puzzles and games which require logical thinking; Rehearse and provide development time for memorizing the "basic facts"; Activate Prior Knowledge and integrate Problem Solving; Connect Numeracy with Literacy and other subjects; You need to create a classroom atmosphere where the students feel secure, take risks in their learning and extend their learning potential. Always have a POSITIVE attitude!!!