

Education 475-4
Designs for Learning: Mathematics

Spring, 1986
Tuesdays, 5:30 - 9:20 p.m.

Instructor: John Trivett
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Location: SFU DOWNTOWN Room: 905
549 Howe Street
Vancouver, B.C. V6C 2C2

Objectives

The course is designed for prospective and practising teachers of elementary and secondary mathematics who wish to explore the fundamentals of learning/teaching processes as they apply to math. Students will be expected to:

- engage in discussion and formulate their own rationale as to their own, evolving, hows and whys of learning and teaching of math;
- explore the realities of children's and adults' learning powers and patterns, by examination of their own and others learning powers and patterns;
- become familiar with and confident in the use of a variety of aids such as fingers, colored rods, logic blocks, geo-boards, etc., and of recent literature on human learning;

On completion of the course it is hoped that teachers will be more at ease with the subject of mathematics, be able to deal confidently with some of the essentials of the prescribed curriculum math guide, 1978 or 1985/86, and be able to plan math instruction within a consistent framework.

Outline of Topics

The topics dealt with will be the usual contents of the B.C. curriculum. They will be dealt with from a methodological viewpoint (how you teach multiplication, fractions, etc.); from the perspective of mathematics, (What is multiplication, fractions, etc.); and from the vantage point of the role of this in everyone's growth and education.

Typical Requirements

Students of the course will be expected to:

- participate fully in classwork and discussions, complete homework, work on a 'term project' - without necessarily finishing it;
- implement some of the ideas and activities with kids and/or with adult friends;

- study the B.C. Math guide and representative textbooks used in schools.

Eligibility

Education 401/402 or equivalent.

If you are in any doubt as to the suitability of this course please contact the Instructor beforehand.

Textbooks (Required)

Trivett, John V., ...And So On, New Designs for Teaching Mathematics Detselig Enterprises Limited, Calgary.

Dawson, A.J. (Sandy), Children Teaching Themselves Math Mathematics, a collection of Readings, SFU (available in the course)