Education 475-4 Designs for Learning: Mathematics

ELEMENTARY

INTERSESSION, 1983 Mondays & Wednesdays 8:30 - 12:20 INSTRUCT Phone: Office h

INSTRUCTOR: Daphne Trivett Phone: 922-6683 Office hours: Mon. & Wed. 12:30 - 1:30 (or by appointment) LOCATION: on campus

GENERAL:

There will be 30 in the class interested in elementary math teaching. All will have an opporutnity to learn more mathematics and a variety of ways of teaching major topics.

Each student is expected to take responsibility for his/her own learning, as an instructor can never know each individual's problems, confusions, frustrations, mathematical abilities or difficulties. Each student is encouraged to speak, interrupt, write, take notes, listen, phone, discuss, argue, get involved, and take risks to further his/her own learning.

OBJECTIVES:

To learn thoroughly some of the major mathematical topics taught in the B.C. schools using materials approved by the B.C. curriculum guide.

To give students possible new ways of approaching future problems in teaching and mathematics.

To help teachers overcome feelings of inadequacy, fear, and non-creativity in mathematics.

To familiarize students with the use of flexible materials for use in math teaching.

REQUIREMENTS:

To attend class regularly, participate in class activities and discussions, do assignments and reading, and keep a journal of reflections, personal progress, ideas and difficulties throughout the course including:

- 1. -notes taken in class
- 2. -records of teaching done with children
- 3. -comments and critique of relevant readings
- 4. -questions not yet answered--things needing further thought and exploration
- 5. -essays exploring the resolution of interesting questions
- 6. -records of mathematical work done on one's own, including self-imposed problems and challenges

TEXT: (required) Trivett, J.V. . . . And So On: New Designs for Teaching Math

This course will not attempt to give an overview of all important math approaches, programs, methods and readings. Students will have to be responsible for familiarizing themselves with the B.C. curriculum, as its scope is too great to cover in class time.

Grades will be assigned by the instructor in cooperation with student self-evaluation. A final interview reviewing students Journals will be part of the evaluation.

Education 475-4 Designs for Learning: Mathematics

SECONDARY

REGULAR SUMMER SEMESTER, 1983	INSTRUCTOR: Professor John Trivett
	Office hours: Monday noon - 1 p.m.
Mondays, 1:00 - 4:50	or by arrangement
(May 9th - August 5th)	LOCATION: on campus

TEXT: (required) Trivett, J.V. . . . And So On: New Designs for Teaching Math.

The course is for those wishing to increase their insight and skill into the learning and teaching of mathematics in secondary grades.

In the time available the complete range of topics in curriculum guides, programs, and texts cannot all be dealt with. Some selection will have to be made as basis for discussing and experiencing together how people learn math, although each participant will be able to concentrate on any particular aspect desired.

The instructor and the instruction are biassed - against mechanical, narrowly conceived theories and practices of teaching, the frequent, traditional pressures of time, rote memorization and the quest for right answers; but toward the reality that every learner can learn thoroughly only when she/he accepts certain responsibilities of his/her own learning and the teacher knows how to involve everyone in doing so. Actions, images, thoughts, processes, imagination and patterning are more important paths than are answers, set algorithms and formulas.

- <u>Reading</u>? A wholesale reading of books outlining other approaches and traditional research will not be required. A list of recommended books will be available.
- <u>Writing</u>? Written accounts will be required from each student of his/her thought, study, teaching, both of some mathematics and its practice in the classroom.

<u>Requisites</u>? Everyone will be expected to join in with the activities and discussions; to spend at least double the time we meet, on homework, thinking, discussing, doing some mathematics, teaching, reading, writing, arguing, etc.

For more details, please feel free to discuss the issues with the instructor prior to registration. Professor Trivett can be contacted at 922-6683 prior to the beginning of the course.