Research Program



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University of Ontario Institute of Technology

- 1 Opened Sept 2003
- 1 hour east of Toronto
- 1 Focus on math & science
- 1 70 students (Year 1)
- 1 90 students (Year 2)
- 1 120 students (2005)
- 1 Ubiquitous computing



Overview

Project 1 Laptop Program Attitude, Skills, & Use Pre-Service Teachers

Phase 1 - Completed

Project 2 **Math & Technology** Attitude and Use In-Service Teachers

In Progress

Project 3 Educational Mini-Clips Teachers Students Parents

In Progress

Purpose

The purpose of this project is to produce and evaluate a repository of instructional video clips (2-5 minutes).

Description <u>Factoring- The Canadian Method</u> <u>Lattice Method of Multiplication</u>

Method of Creating Clips





Actual color may very >







Uses

- Student review of problems (pause & stop)
- Students articulating understanding
- Student performance assessment
- Teacher candidates developing explanation skills
- Modelling for teacher candidates
- Sharing / learning new mathematical methods
- Online learning
- Parental involvement in learning

Phase 1

- 1 51 math students
- 1 Creating a series of 5 clips (high school)
- <u>Guide</u> to help students develop better explanation skills
- 1 Clips will be rated by teacher & students
- 1 10 students will use tablets during practicum
- 1 Survey after the project is finished

Key Questions

- What is "good" explanation in mathematics?
- Do the clips help students to be more effective at explaining math problems?
- Is there a correlation between explanation skills and success in the practicum?

Phase 2

- Using Educational Mini-Clips with in-service teaches and students
- Developing a database of good miniclips
- Developing a solid base of master "explanations" that can guide teacher candidates

Contact Information

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