INNOVATION IN TEACHER PRACTICE: ISSUES THAT ARISE AS A TEACHER INTRODUCES TECHNOLOGY ENHANCED INSTRUCTION

by

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We accept this thesis as conforming

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ABSTRACT

Previous studies have examined the use of computer-based activities as instructional and learning tools in science classrooms. Studies have examined the use of various hardware and software devices as well as student attitudes and student achievement after working with computer-based activities in science classrooms. Recently, a working pedagogical model that incorporates computer-based technologies into science instruction has been developed and studied in British Columbia schools. The model is called Technology Enhanced Secondary Science Instruction (TESSI). Student attitudes and achievement have been studied under this model, but little research has addressed the practical issues involved in the implementation of computer-based activities from the perspective of an innovating teacher. This study presents a teacher-researcher action research investigation of the issues that a teacher experiences in the use of computer-based activities while developing the TESSI model for the Chemistry 11 and 12 classrooms. Action research methodology provides a useful tool for analysis of practical problems important to professionals. Teachers, practitioners of the art of teaching, may employ action research to study their practical questions and secure a voice in academic literature. Using a teacher-researcher framework to examine problems related to their practice, teachers can describe and interpret cases from an “insider’s” perspective.

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