This article evaluates the findings of one school experience with using mobile laptop carts, or computers on wheels (COWs) to affect change in teacher practice and student learning. These carts of 5 to 25 mobile computers are typically wireless and can be wheeled from classroom to classroom as needed. The study was structured around four primary questions that focused on classroom practices, degree and type of technology use, academically focused time, student engagement, teacher technology skills, teacher attitudes toward technology as well as student and teacher reactions to the programme. The evaluation design was based on both quantitative and qualitative data collected from classroom observations, teacher surveys and focus groups with teachers and students. The School Observation Measure (SOM) examined the frequency of usage of 24 instructional strategies. SOM results indicate the extensive use of cooperative/ collaborative learning; project based learning and the teachers acting as coaches or facilitators. The Survey of Computer Use (SCU) examined the availability and student use of technology and software applications. Results from the SCU indicate the extensive use of productivity tools, specifically draw/paint/graphics and electronic presentations and Internet research with Internet browsers. The results from the SCU point to activities that result in the meaningful use of computers that were based on problems required critical thinking skills and used computer applications to locate process and/or manipulate information. The Rubric for Student-Centred Activities (RSCA) rated the degree of learner engagement in specific instructional strategies during the observations. Data from the RSCA revealed that teachers used technology with over 40% of their student-centred learning activities. The Teacher Technology Questionnaire (TTQ) indicated that the fifth-grade teachers responded very positively to the programme. The Teacher Skills Assessment (TSA) revealed very high levels of confidence in the fifth-grade teachers to use technology throughout six areas: computers, software, multimedia, Internet, advanced skills and using technology for learning. The students identified electronic presentations: writing ‘stories’; graphing things like an ordered pairs lesson in mathematics; using draw/paint to create an original flower in science and visiting Internet sited for information seeking/research as ways they had used the laptop computers in class. The students felt that the types of students who benefited most from using the laptops were those that were fast learners or ‘students who learn more’. The study emphasized three factors as indicators
for change in impacting technology integration: teacher technological knowledge and efficacy; pedagogical knowledge and a supportive community.

**Keywords:** Computer on wheels; School Observation Measure; Survey of Computer Use; Teacher Technology Questionnaire; Teacher Skills Assessment; Observation; Focus group.