



## Using Action Research for Verification That Technology Impacts Student Achievement

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### Abstract

Educators have been making significant strides toward integrating technology into their classroom instruction [USDOE, 2003]. Often, educators themselves feel their efforts are worthwhile in respect to positive changes they see in outcomes, including student learning, attitudes, and motivation. The literature indicates that quantitative and/or qualitative research conducted to date does not consistently verify such positive changes when technology is integrated [NCEE 2009]. Societal members, including educators, want to see documented positive results, especially gains in academic achievement, in order to continue to fund the purchases of technology for classroom use. Assessing academic achievement may not always be simple and clear-cut. The literature indicates that it may be difficult to accurately measure academic achievement due to many factors that cannot be controlled, as a result of the differences in teachers and how they teach, students and how they learn, and the learning environments established and managed by school staff and teachers [Akey 2006; Cawelti, 2004]. The authors of this paper recommend that it may be advantageous to look at how academic achievement verification may be researched by investigating how specific teachers and specific students interact within specific learning environments. The use of action research may provide a better perspective about the factors that may be involved in maximizing student academic achievement. The literature indicates that teachers implementing action research analyze diverse factors involving their teaching, student's learning, and the learning environment [Mertler, 2012]. Teacher's analysis leads to modifying how instruction is delivered to students, thereby providing best practices that enable their students to effectively use technology to raise their academic achievement scores, and to realize growth and improvement in other areas. Publication of teacher's action research processes and results may help other teachers to use similar strategies and approaches to maximize the use of technology for increased student achievement.