This ongoing research evaluates the IMPACT model, a media and technology program currently being implemented in 30 North Carolina schools. The primary goal of this project is to evaluate how a fully-funded implementation of the IMPACT model in K-12 schools affects teaching and learning. In addition, the evaluation seeks to assess the degree of improvement in students’ technological skills, and to examine whether the collaborative environment and professional development provided in the uses of various technological tools result in more frequent and/or deeper technology integration by classroom teachers in all grade levels and subject areas. Both qualitative and quantitative measures are used to measure technology integration.

The IMPACT model

The IMPACT model is composed of several elements, including hiring full-time media and technology personnel; providing flexible access to media centers; integrating technology resources to promote effective teaching and learning practices; encouraging collaboration among teachers; and offering professional development to support all elements of the model. IMPACT uses a “Train-the-Trainer” model in which school administrators, technology facilitators and media coordinators participate in intensive leadership training prior to school-wide implementation of the model. The Instructional Technology Division of the North Carolina Department of Public Instruction provides the training.

Participating Schools

This project includes 30 North Carolina schools participating in both the IMPACT III and IMPACT IV programs. These programs build on previous grants, referred to as IMPACT I and II, which were implemented in other schools in the state as early as 2003. IMPACT III and IV differ from each other in the timing and the extent of the professional development that were provided before the onset of the program, but otherwise include the same interventions and are evaluated using the same measures. IMPACT III and IV schools are located in seven public school districts that responded to an RFP issued by the North Carolina Department of Public Instruction. The school districts represent several regions of the state, including both urban and rural areas.

The Evaluation

A quasi-experimental (matched subjects) longitudinal design is being used to look at multiple outcomes, including teacher, student, and administrator skills, attitudes, and behaviors. Each IMPACT school has been carefully matched with a similar school that could serve as a comparison. Schools were matched based on factors such as
geographical proximity, demographics, and school configuration. Multiple measures are being used to assess outcomes at each level.

Both qualitative and quantitative tools are used to measure fidelity of implementation. Teachers’ skills and behaviors are measured via a self-report instrument that measures six dimensions of the National Education Technology Standards for Teachers (NETS-T), and administrators’ schools and behaviors are measured using the National Education Technology Standards for Administrators (NETS-A). Additionally, the quality of the professional development will be assessed using the Standards Assessment Inventory developed by the National Staff Development Council (SEDL, 2003). This instrument will be administered to all staff members at both project and comparison schools in the spring of 2009 to examine the difference in the quality of professional development. Student achievement is assessed using state criterion-referenced tests administered at the end of each year in grades 3-8 and subject-specific tests administered at the end of particular Reading and Math courses in grades 9-12. Students’ technological literacy is measured using the state-required test administered to eighth grade students in all project and comparison schools, as well as a self-reported Technological Skills checklist administered to all IMPACT students on a pre-post basis to measure growth throughout the year.

This evaluation also includes a qualitative component, using results from focus groups, interviews, classroom observations, and open-ended surveys administered at IMPACT schools. Classroom observations are being conducted in a cross-section of grade levels and subject areas at each school, once in the fall and once in the spring. We are using the ISTE Classroom Observation tool (ICOT©) during these observations to document the use of technology in the schools. In addition, focus groups are being conducted with the Media and Technology Advisory committee at each school. Administrators, teacher leaders, technology facilitators and media coordinators are also being interviewed during the year to assess implementation strengths and weaknesses at their site.