IMPACT for Administrators:

Guidelines for North Carolina Media and Technology Programs
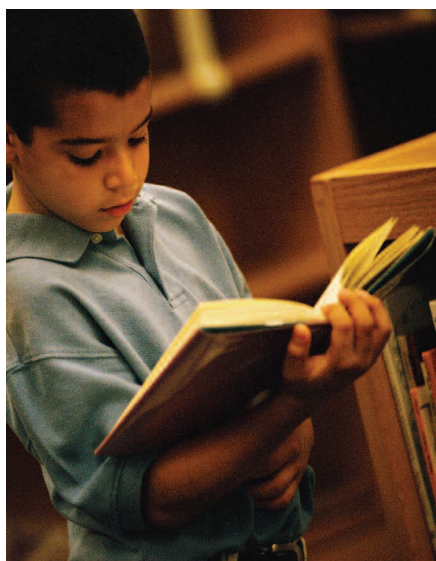
NC DEPARTMENT OF PUBLIC INSTRUCTION

June St. Clair Atkinson, Ed.D., State Superintendent

301 N. Wilmington Street :: Raleigh, North Carolina 27601-2825

Inquiries or complaints should be directed to:
Dr. Elsie C. Leak, Associate Superintendent :: Office of Curriculum and School Reform Services
6307 Mail Service Center :: Raleigh, NC 27699-6307 :: Telephone 919-807-3761 :: Fax 919-807-3767

Visit us on the Web :: www.ncpublicschools.org

August 31, 2006

NORTH CAROLINA MEDIA AND TECHNOLOGY PROFESSIONALS:

It is with great pleasure that I commend to you the revised *IMPACT: Guidelines for North Carolina Media and Technology Programs.* The acknowledgement of the equal importance of both the school library media and the instructional technology programs in teaching and learning is the premise of these guidelines.

We know that school library media and instructional technology programs are the foundation of a 21st Century education. The access to information that these programs afford makes the difference between the textbook-bound classroom of the past and the far-reaching, resource-based curriculum of today and tomorrow. Research tells us that instructional technology, used appropriately, results in higher test scores. It is remarkably effective in sparking student interest, increasing motivation, and raising self-esteem, thus positively impacting student achievement. Research also tells us that a school library media center that provides up-to-date, accurate, and attractive resources managed by a professional school library media coordinator who collaborates with teachers to augment and enhance classroom instruction also results in increased test scores, especially in reading. *IMPACT* reflects both the reality of this research and the commitment to assuring that every teacher and student has the academic and personal advantage of access to these high quality programs.

No North Carolina citizen can be left behind! Implementing the *IMPACT* Guidelines in your school assures that our youngest citizens, their parents, and their teachers will have the skills necessary to enter the 21st Century world of work and civic responsibility.

The school library media and instructional technology program and the resources it promotes are central to the success of North Carolina's ABCs of Public Education and to Governor Easley's 21st Century Learning Skills priority--in fact, to all school reform initiatives throughout the state. *IMPACT* and the excellence it fosters are a part of the vision and accountability necessary to produce schools that are First in America.

Howard N. Lee
Chairman, Start Board of Education

August 31, 2006

TO NORTH CAROLINA ADMINISTRATORS:

It is with great pleasure that I commend to you *IMPACT for Administrators.* Aligned with *IMPACT: Guidelines for North Carolina Media and Technology Programs, IMPACT for Administrators* acknowledges the importance of school library media and instructional technology programs in enabling and supporting 21st Century learning for all North Carolina students.

The access to information that school library media and instructional technology programs afford makes the difference between the textbook-bound classroom of the past and the far-reaching, resource-based curriculum of today and tomorrow. Self-directed, student-centered teaching and learning empower future 21st Century workers. Research conducted here in North Carolina's schools indicates that instructional technology, used appropriately, results in higher test scores. It is remarkably effective in sparking student interest, increasing motivation, and raising self-esteem, thus positively impacting student achievement. The same research corroborates national research that tells us that a school library media center stocked with up-to-date, accurate, and attractive resources managed by a professional media coordinator who collaborates with teachers to augment and enhance classroom instruction also results in increased test scores, especially in reading. *IMPACT for Administrators* and *IMPACT: Guidelines for North Carolina Media and Technology Programs* reflect both the reality of this research and the commitment to assuring that every teacher and student has the academic and personal advantage of access to these high quality programs.

School library media and instructional technology programs and the resources they promote are central to the success of North Carolina's ABCs of Public Education-- in fact, to all school reform initiatives throughout the state. *IMPACT* and the excellence it fosters are a part of the vision and accountability necessary to produce students equipped with 21st century skills for a 21st century workforce.

Sincerely,

June St. Clair Atkinson, Ed.D.
State Superintendent of Public Instruction

ACKNOWLEDGMENTS

FOREWORD

Welcome to *IMPACT for Administrators!*

IMPACT: Guidelines for North Carolina Media and Technology Programs is the vision for media and technology programs in North Carolina. It recognizes that an effective school library media and technology program is the infrastructure that supports both teaching and learning. This program is the key to making education relevant to a knowledge-based society and its economy. *IMPACT* is aligned to *Information Power: Building Partnerships for Learning,* the national standards for media and technology programs, the ISTE National Educational Technology Standards, and a growing body of school library media and instructional technology research.

Reflecting the recommendations of the 2005-2009 North Carolina Educational Technology Plan, *IMPACT* acknowledges the importance of staffing each school in North Carolina with both a school library media coordinator and a technology facilitator. It also reflects a commitment to provide a roadmap for an integrated media and technology program once these positions are in place. It offers assessment instruments to assist in the evaluation of the media and technology program designed to move us toward the State Board of Education goals of rigor, relevance, and relationships, the foundation of a 21st Century educational and economic environment.

IMPACT for Administrators is a tool that will help principals and other administrators to plan and build effective, comprehensive teaching and learning environments for the 21st Century.

Frances Bryant Bradburn, Director
Division of Instructional Technologies
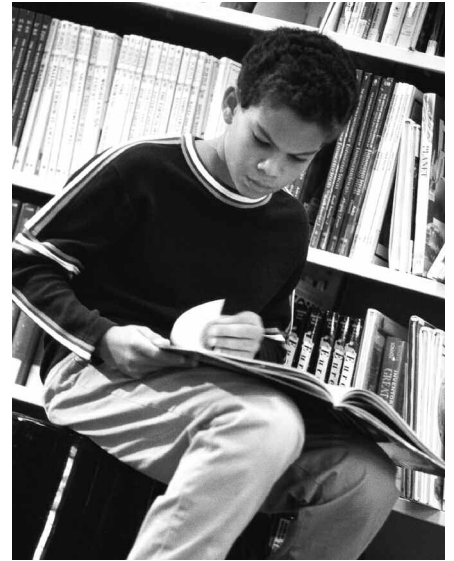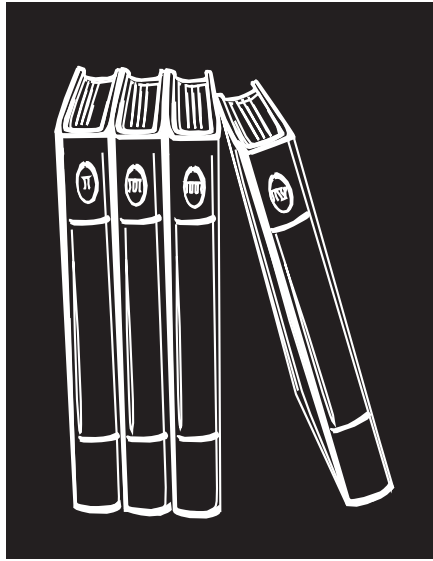
TABLE OF CONTENTS

TABLE OF CONTENTS

IMPLEMENTING THE *IMPACT* MODEL

RESEARCH AND EVALUATION

PERSONNEL

IMPLEMENTING THE *IMPACT* MODEL

IMPLEMENTING THE *IMPACT* MODEL: A HOW-TO GUIDE

Educators in schools interested in implementing the *IMPACT* Model always ask, "What is the best way to begin?" While one school might decide to implement all portions of the model simultaneously--hiring all the staff, implementing flexible access, and initiating monthly grade-level collaborative planning sessions, others prefer a phased-in model to help staff prepare for the change in school culture that will ensue. The following guide offers strategies for implementing the *IMPACT* Model regardless of the timeline that a school adopts. Please be aware, however, that all change is difficult. Moving quickly and resolutely toward a new program may be less painful than a drawn-out implementation.

PHASE 1: Building Support

The first step in implementing the *IMPACT* Model is creating an awareness of the benefits of the model to students and teachers.

- Administrative support is critical to implementing the model. The principal should be an instructional leader who participates fully in the Media and Technology Advisory Committee (MTAC).

- Teachers and all stakeholders should be represented on the MTAC. Research on the benefits of flexible scheduling can be shared with the MTAC whose members will serve as advocates for the *IMPACT* Model within the school and community.

- Parents and community members should be represented on the MTAC.

- The school library media coordinator and technology facilitator should be active participants in the School Improvement Team, ensuring that information and technology skills are addressed within the school improvement plan.

- A school wide planning retreat focusing on change, flexibility, and collaboration provides the opportunity to share research on the *IMPACT* Model and address initial concerns among the total staff.

- The MTAC should communicate with educators in other schools in North Carolina that have successfully implemented the *IMPACT* Model and learn from their experiences.
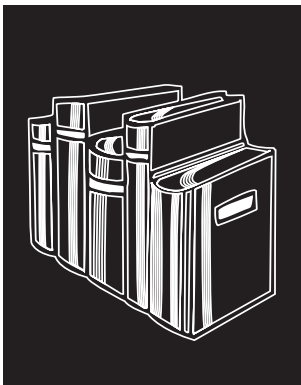
PHASE 2: Readiness Assessment

The second step in implementing the *IMPACT* Model is determining the readiness of your school for successful implementation. Consider the following needs as you design this assessment:

- The school library media coordinator and technology facilitator, in collaboration with the system-level technology director and system-level media director, should review *IMPACT* guidelines and North Carolina Educational Technology Plan recommendations for determining additional personnel.

- The media coordinator and technology facilitator should conduct a needs assessment for staff to determine their readiness to utilize technology and information in a collaborative environment. This assessment may include technology application skills, technology integration skills, flexible scheduling utilization, understanding of collaborative teaching and learning, and how to ask open-ended questions.

- Content area curriculum mapping/pacing guides should be reviewed and updated for alignment to the *Standard Course Of Study,* relevance to current classroom practice, and consistency across grade levels and subject areas.

- The infrastructure should be evaluated for adequacy according to the standards described in the North Carolina Educational Technology Plan.

- Hardware access and software resources should be evaluated for adequacy and age appropriateness according to North Carolina Educational Technology Plan standards.

- The media collection should be evaluated through a collection analysis that maps resources to the curriculum.

- A long-term collection development plan should be created based on the collection analysis. The collection should balance print and nonprint resources.

- The media center schedule should be evaluated for its capacity to provide point-of-need resources and services to students and staff. The master schedule should be reviewed for options to create flexible access to media and technology facilities and personnel.

- The existing budget should be evaluated for the capacity to fund needs identified in the readiness assessment. All potential external and internal sources of funding should be identified in consultation with the system-level technology director, the system-level media director, and the principal.

- The MTAC should conduct a benchmark assessment of the media and technology program using *IMPACT* rubrics.

PHASE 3: Setting the Stage for Successful Collaboration

The next step in implementing the *IMPACT* Model is to create a foundation for collaborative planning that addresses needs identified in the readiness assessment.

- The principal will attempt to meet personnel needs through re-assignment of existing staff and recommendations to the superintendent for hiring additional staff.

- With the support of the MTAC, the principal should articulate school-wide expectations for collaboration. This may include a master planning calendar based on curriculum mapping/pacing guides.

- The principal will develop a schedule to provide flexible access to the school library media coordinator and technology facilitator and facilities.

- The media coordinator and technology facilitator will acquire print and non-print resources based on the collection development plan.

- The media coordinator and technology facilitator will acquire adequate hardware/ software according to the recommendations of the North Carolina Educational Technology Plan and the MTAC committee. These acquisitions should include adaptive technologies for students with special needs.

- The media coordinator and technology facilitator will offer professional development on best practices in using technology and media resources to support student achievement.

- The system-level technology director will upgrade building infrastructure to meet North Carolina Educational Technology Plan standards.

- The media coordinator and technology facilitator, with the principal and teachers, will analyze student data to identify school-wide student needs.

- As members of the School Improvement Team, the media coordinator and technology facilitator will identify goals for technology/information skills integration in the School Improvement Plan.

- The media coordinator and technology facilitator, with input from the MTAC, will redesign the media center and classrooms to accommodate differentiation of instructional activities with technology and flexible grouping.

PHASE 4: Formal Collaboration

The ultimate step in implementing the *IMPACT* model is creating collaborative planning times. Using this time, the school library media coordinator, technology facilitator, and classroom teachers collaboratively will:

- Plan together to create and evaluate multidisciplinary units of instruction integrating technology/information skills across the curriculum;

- Design differentiated instructional activities to meet individual student needs;

- Identify regular common planning time for team collaboration by grade level and subject;

- Assess student products emerging from collaboratively planned units of instruction (New assessment tools and rubrics should be created as needed.);

- Celebrate student achievement and recognize teachers for their successes;

- Evaluate the outcomes of common planning times using a variety of methods such as surveys, reflections, and plus/delta charts.

PHASE 5: Beyond the Classroom

Collaborative planning will expand the opportunities for integrating resources beyond the classroom. The increased use of media and technology resources in instruction makes it important to expand access to these resources beyond the traditional school day and the traditional school community.

- The school library media coordinator and technology facilitator will identify and integrate outside resources into collaborative units of instruction. These resources may include local, state, and national educational resources including print, digital, and human resources.

- The media coordinator and technology facilitator will work with partners to provide after school programs for children, parents, and community members. (For example, Computer Camps, Computer Clubs, Book Clubs, technology training for adults, family technology and reading nights.) The media center and technology facilities may be opened extended hours and staffed by educators who have negotiated flexible hours with the administration, by separately hired staff, and/or by volunteers.

ON-GOING: Evaluation

Implementation of the *IMPACT* Model may be evaluated by the MTAC using the following guided reflection questions.

- What impact does a supportive environment have on media and technology access and use?
- What impact do media, technology, and collaboration have on the total school program?
- What impact does communication have on the total school program?
- What impact do research-based practices in technology, literacy, and information skills have on student learning?
- Does integration of technology/information skills throughout the curriculum enhance student learning?
- What areas of the curriculum can most effectively be enhanced with technology/information skills?
- Does the use of technology as a learning tool improve student achievement?
- To what extent is data used in making decisions about hardware/software allocations and selection of media resources?
- To what extent are technology and media resources accessible to all students?
- To what extent are technical support personnel provided and technical support procedures implemented?
- To what extent are technology and media resources accessible during and beyond the school day?
- To what extent has the school established and maintained an effective communications system?
- To what extent does the school support and promote collaboration?
- To what extent are procedures used to monitor, evaluate, and review progress of technology initiatives?
- To what extent is effective professional development provided?
- To what extent are student/curricular needs being fulfilled by identified media and technology resources?

ORIENTATION FOR NEW STAFF AND ADMINISTRATORS:

- The school must recruit and hire teachers who are receptive to the *IMPACT* Model.
- The MTAC will provide orientation for new staff and administrators to the *IMPACT* Model.

DEALING WITH THE CHANGE THAT THE *IMPACT* MODEL WILL BRING

"THE CONVICTION THAT LEARNING GOALS SHOULD BE FIXED AND TIME A FLEXIBLE RESOURCE OPENS UP PROFOUND OPPORTUNITIES FOR CHANGE."
(United States. Department of Education. "Prisoners of Time.")

USING THE CONCERNS-BASED ADOPTION MODEL (CBAM) TO MOVE TEACHERS FORWARD IN THE *IMPACT* MODEL

In order for the *IMPACT* Model to work in a school, it must have the support and understanding of classroom teachers. Teachers must understand the changes that will occur in their classrooms and in their teaching as a result of this model. The administrative and media and technology staff must support and nurture teachers through this change.

Supporting and nurturing means addressing teachers as individuals and understanding their concerns about the changes they are or will be experiencing. According to the CBAM model of change, individuals involved in change can be identified as one of the following:

- INNOVATOR: Approximately 8% or any group can be considered innovators. These individuals are eager to try new ideas, are open to change, and are willing to take risks.

- LEADER: Approximately 17% of any group can be considered leaders. These individuals are open to change, but more thoughtful about getting involved.

- EARLY MAJORITY: Approximately 29% of any group can be considered as the early majority. These individuals are cautious and deliberate about deciding to adopt an innovation.

- LATE MAJORITY: Approximately 29% of any group can be considered as the late majority. These individuals can skeptical of adopting new ideas and are "set in their ways."

- RESISTER: Approximately 17% of any group can be considered resisters. These individuals are suspicious and generally opposed to new ideas. (Hord, S., et al, 1998.)

It is important to recognize that these identifiers are not meant to be negative or positive, but rather they allow a change facilitator to recognize what is needed to move an individual through the change process. For the *IMPACT* Model, this means being able to recognize how a teacher approaches a change to classroom practice and working with each individual to better utilize the model.

Once the school library media coordinator, technology facilitator, and/or administrator have identified each teacher's adopter level, they should identify Stages of Concern. The Stages of Concern help to identify how a person feels and thinks about a given initiative. In the implementation of the *IMPACT* Model, teachers will move through the stages as they become more comfortable with the collaborative process and the *IMPACT* culture.

CHANGE:

- is a PROCESS, not an event

- is made by INDIVIDUALS first, then institutions

- is a highly PERSONAL experience

- entails DEVELOPMENTAL growth in feelings and skills

(Hord, S., et al 1998.)

STAGES OF CONCERN

0. AWARENESS: The individual either isn't aware of the change being proposed or doesn't want to learn it.

1. INFORMATIONAL: The individual has heard of the program, but needs more information.

2. PERSONAL: The individual's main concern is how this program will affect them on a personal level.

3. MANAGEMENT: The individual's main concern is about the management, scheduling, etc., of a specific program.

4. CONSEQUENCE: The individual's primary concern is how the program will affect students or how they can make the program work for their students.

5. COLLABORATION: The individual's primary concern is how to make the program work better by actively working on it with colleagues.

6. REFOCUSING: The individual's primary concern is seeking out a new and better change to implement.

When the media coordinator, technology facilitator, and/or administrator have identified each teacher's Stage of Concern, they can more easily communicate the needs of both the teacher and the program. Teachers in the early stages of concern will need more one-on-one assistance and encouragement than those in the later stages.

WHAT TEACHERS MUST BE WILLING TO DO

When teachers understand that a change will take place, they will need to be completely aware of what implementing the *IMPACT* Model will mean to their classroom and their teaching practice.

TEACHERS MUST BE WILLING TO:

BE FLEXIBLE
- Take risks
- Try new things
- Step out of the box

ASSESS STUDENT NEEDS
- Analyze test scores
- Understand individual learning styles
- Survey individual interests

INITIATE COLLABORATION
- Brainstorm ways the collaboration process can work for them and their students
- Share ideas with school library media coordinator/technology facilitator and other teachers
- Begin the collaboration process
- Evaluate project successes

FAIL
- Technology doesn't always work
- Students don't always work well collaboratively
- The "best" lesson plan doesn't always work out the way you planned

ASK FOR HELP
- Students
- Teachers
- School library media coordinator
- Technology facilitator

CELEBRATE SUCCESSES
- Tell other teachers what is working well
- Share with school library media coordinator and technology facilitator
- Share with other schools
- Share at conferences
- USE: Web sites, bulletin boards, newsletters, displays, sharing lessons, press releases, system-level collaboration fairs, school-wide activities (Poetry Day, Technology Night), etc.

CHANGE ROLES

- Move from being the "sage on the stage" or "guide on the side" to the "mentor in the center"

- Facilitate the learning process

- Allow students to begin taking responsibility for their own learning

- Become a team member

- Become a life-long learner

TECHNOLOGY FACILITATOR SCENARIO

"THE IMPORTANT ISSUE IN EFFECTIVENESS FOR LEARNING IS NOT THE SOPHISTICATION OF THE TECHNOLOGIES, BUT THE WAYS IN WHICH THEIR CAPABILITIES AID AND MOTIVATE USERS"

(Dede, C., 2001).

Innovation Middle School is wired. Every classroom has three multimedia, Internet accessible computers, an LCD projector, a Digital Interactive Whiteboard, a DVD player, and curriculum appropriate hardware and software. Networked printers are located on every hall, and each grade, 6th, 7th, and 8th, has a mobile computer lab. For Mrs. Ray, the technology facilitator, a wired school means a very busy schedule. Mrs. Ray has worked at Innovation Middle School for many years. Through her experience and education, she has gained and applied many insights about technology and the job of teaching.

Mrs. Ray knows that technology brings new resources into the classroom (Bajcsy, 2002). For instance, this is the first year that Mr. Price has participated in the Global Lab project with his eighth grade 1st period science class. Global Lab students around the world create environmental profiles of their school. Students measure parameters such as light intensity, carbon dioxide concentrations, air and soil temperature, and soil moisture, then compile their data and exchange it with other schools across the globe. Through the global lab project, Mr. Price's students have information that has not been available to his students in previous years. With observations available from other students in diverse environments, his students make comparisons of their environmental profile with profiles of other environments to make hypotheses and observations. This morning Mrs. Ray works with Mr. Price and his students organizing the data from the various environments in a database. While Mrs. Ray works with students on creating a database, Mr. Price will work with students on organizing and synthesizing the information in appropriate searchable fields and records.

Mrs. Ray also knows that with technology, teachers are able to develop new forms of instruction (Means, 2000). Last summer, the Innovation Middle School Social Studies team, developed lessons and an accompanying selection of online resources and software, of texts, photographs, audio and video content. This morning in Mrs. Foust's second period social studies class, students are using the resources to create multimedia reports instead of the traditional written reports on Asian history and culture. The group assigned to explore the economy of China, uniquely explore the ties between the American economy and China's economy and working conditions in their multimedia report titled *Made in China.* Students use photographs and voiceovers to explain the implications of importing products from China to the United States. This morning Mrs. Ray and Mrs. Powder, the school library media coordinator, are working with the students on their projects. Mrs. Powder is instructing students on how to correctly cite sources for multimedia and online resources. Mrs. Ray is helping students incorporate multimedia sources into their presentations correctly. Mrs. Foust comments that using the multimedia resources gives greater content and depth to instruction and student assignments.

Discussions with many teachers confirm something else Mrs. Ray already knows. Technology motivates student learning. Teachers suggest that technology motivates students, because it creates an environment that involves students more directly than traditional teaching tools (Schacter, 1999). Before Mrs. Ray heads to the sixth grade team weekly planning meeting, she stops by Mrs. Brown's 8th grade language arts class.

Since Mrs. Brown replaced journal writing on required reading assignments with Weblogs, her students' writing has increased dramatically. Students are so involved in writing and reading Weblog entries that they all scramble to get on the computers before lunch. Because students are posting their responses online where every other student can read the entry, students are reading the young adult literature thoroughly and are posting more in-depth observations about what they are reading. Mrs. Brown is ecstatic. Not only are students more engaged in the literature, but they are also taking responsibility for their own learning.

After lunch Mrs. Ray heads for Mr. Mulroney's room. Technology has been extremely helpful in individualizing instruction for students, many of whom are served in exceptional classrooms (Lou, 2001). While Mr. Mulroney believes that technology helps adapt instruction to student learning styles, he does not believe in isolated learning. In Mr. Mulroney's class, students are learning about volcanoes together through a variety of activities. Mark and Adam are building a model volcano from everyday kitchen products. Mary is using simulation software to simulate a volcanic eruption by combining different gases with magma and rock. Linda and James are creating a Hyperstudio stack on Mount St. Helen's in Washington. Mr. Mulroney asked Mrs. Ray to join the class this afternoon as students' work on their different projects.

As students are leaving school, Mrs. Ray is setting up for professional development. Mrs. Ray knows that effective use of instructional technology is dependent on the teacher (Grove, Strudler, and Odell, 2004). Teachers must be confident in applying technology when and where appropriate. To maintain their technology competency in a fast-paced environment, professional development has becomes a high priority for teachers. Today, Mrs. Ray is teaching sixth grade teachers about handhelds.

Before Mrs. Ray leaves for the day, she checks the next day's schedule. She notes that tomorrow Mrs. Caison, the music teacher, is using midi software in music appreciation class . . .

For online video examples of technology facilitator scenarios visit the following Web site: <http://www.ncwiseowl.org/IT/TFPAI/TFPAI.htm>

SCHOOL LIBRARY MEDIA COORDINATOR SCENARIO

INFORMATION LITERACY IS A TRANSFORMATIONAL PROCESS IN WHICH THE LEARNER EVALUATES AND USES INFORMATION IN ITS VARIOUS FORMS FOR PERSONAL, SOCIAL, AND PROFESSIONAL PURSUITS

(paraphrased from Abilock, 2004).

It is 7:00 a.m. – just another day in the Innovation school media center. Students cluster in the foyer waiting for the library doors to open. The library is always used heavily before the school day begins. Some students will come to the media center to work on class assignments. Others will check out books. Teachers stop by to schedule a class in the media center for a project. At 8:00 a.m., the first bell rings and the media center empties while students flock to homeroom class.

Mr. Reynold's seventh grade math class is the first class of the day for Mrs. Wright, the school library media coordinator. Geometry is always a favorite part of the math curriculum in seventh grade because students never tire of constructing shapes and figures. Today, students are exploring an engineering geometric wonder of the world, domes. Mrs. Wright is excited today to share some of the books in the media center on the design and construction of structures. Some of Mrs. Wright's favorites are *Building Big* by David Macaulay, *Experiment! Spiderwebs to Skyscrapers: The Science of Structures* by David Darling, and *Eyewitness Books: Force & Motion* by Peter Lafferty.

After Mr. Reynold's class leaves, Mrs. Wright checks on a couple of eighth grade boys who are investigating the various estuaries in North Carolina. Their assignment is to locate an estuary to visit on a field trip. Mrs. Rowland, the media assistant, helps the boys do a search on the Internet on estuaries in North Carolina. So far the boys have information on the Neuse River, the Albemarle, and the Pamlico River Estuary. Mrs. Wright directs the eighth grade boys to resources in the reference collection. Several books on North Carolina can aid their decision. Notably, *The Nature of North Carolina's Southern Coast: Barrier Islands, Coastal Waters and Wetlands* by Dirk Frankenberg describes several estuaries of interest.

The Lunchtime Book Club meets today. Students who join the club bring their lunch to the library and discuss a book that they are reading. Currently, they are reading *The Double Life of Zoe Flynn* by Janet Lee Carey about a girl who hides the fact from her classmates that her family lives in a van. Mrs. Wright has several book clubs to meet the varied interests of students. Her personal favorite is the sports heroes book club she jointly coordinates with Mr. Reynolds. When reading is connected to real-world contexts and personal interest students are more motivated to read (Ivey and Broaddus, 2001).

After lunch Mrs. Wright meets with the sixth grade collaborative planning team for the afternoon. Each year the sixth grade teachers focus the instructional program around a central theme. This year the theme is cities. The team has already decided the theme for next year will be detectives. Today, they want to pinpoint resources and plan ideas for integrating the theme with the SCOS. Mrs. Wright is excited. The detective/mystery genre of young adult literature is always a favorite with middle grade students. Today she suggests to Mrs. Johnson, the language arts teacher, *Wolf Rider* by Avi and *Getting Lincoln's Goat* by E. M. Goldman as literature for next year.

Mrs. Wright also thinks the history detectives Web site (http://www.pbs.org/opb/history detectives/index.html) will be the perfect fit for the social studies curriculum. During the planning meeting she shows this Web site to Mr. Carter, the sixth grade social studies teacher while Mr. Grady, the science teacher and Mr. Brown, the math teacher discuss some ideas for integrating math and science with a detective theme. Mrs. Wright has appreciated the insight that a theme-based approach has brought to the sixth grade teachers. The sixth grade teachers recognize that their role as the content specialist combined with the media specialist's role as resource specialist has helped build a stronger, more dynamic instructional program (Russell, 2002).

Theoretically, every unit of instruction in any subject curriculum has an opportunity for a problem- or inquiry-based learning component that requires data, information, and knowledge (Georges, 2004, p. 34). For Mrs. Wright, her role within the educational institution is clear. It is her responsibility to seize every opportunity, to provide her colleagues with instructional activities, and to create a collaborative atmosphere that fosters information literacy.

For online video examples of school library media coordinator scenarios visit the following Web site: <http://www.ncwiseowl.org/IT/MCPAI/MCPAI.htm>

CENTRAL OFFICE SCENARIO

Innovation School District is an *IMPACT* model district. Every school has robust network infrastructure and connectivity. The curriculum-based media collection (both print and non-print) is current. Desktop computer and wireless laptop to student ratio is 1:2.5. Peripherals such as Digital Interactive Whiteboards, DVD players, wireless laptops, LCD Projectors, printers, and PDAs abound. Each school has a full time media coordinator, technology facilitator, media assistant, and technician or technology assistant.

Mr. Reynolds, the Media and Technology Director for the county, understands the importance of the seamless integration of technology and media into all curriculum areas. He makes sure he is up-to-date on the latest education news and theory. Mr. Reynolds spends time reviewing commentary by bloggers like David Warlick, Will Richardson, and Doug Johnson. He updates his own professional blog. He takes time to review current technology legislation and maintains a working relationship with his DPI consultant.

Mr. Reynolds is aware that educating his stakeholders about the *IMPACT* model is an important part of what he does. So at the Central Office Administrators' Meeting, he presents information about how the *IMPACT* model has affected the county test results. He is pleased to report that students in particular subgroups had substantially stronger growth, varying from small differences to about half a grade level of extra growth, depending on the test and grade level. (*IMPACT: Year One Evaluation 2003-2004*, NCSU) Valuing face-to-face contact, Mr. Reynolds visits the schools to meet with county representatives on the Media and Technology Advisory Committee. He gains their perspectives on the following MTAC meeting agenda items:

- Reviewing student blogs
- The upcoming collaboration with the crisis intervention team
- Professional development on reading, writing, and math with media and technology infused into the training
- Internet content filtering

Back at the office, Mr. Reynolds meets with technology support on the proposed Internet Content Filter solution. He balances the tech support view with the concerns of the MTAC committee members, CIPA compliance, and policies at all levels. He takes a quick look at technology support records and procedures to ensure that work orders are being fulfilled in a timely fashion. Mr. Reynolds spends the next couple of hours looking at the recommendations of the MTAC committee to move towards a Web-based, district-wide library resource automation solution, which will be searchable by students, teachers, and parents from any Internet connected computer. A presentation and recommendation must be made to the Board of Education and the County Administrators in order for funding to be approved.

The Board of Education has also requested more information on the funding request to update and replace hardware. Mr. Reynolds works to develop documentation that supports the request. He develops reports on:

- computer utilization by students in classrooms, media centers, and labs
- the correlation of *IMPACT* to the *Standard Course of Study*
- instructional inadequacies of legacy computers
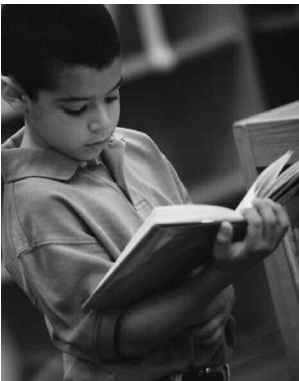
In the late afternoon, Mr. Reynolds meets with the Senior Project pilot group to flesh out ideas on how media and technology can support these projects. Following this meeting, the County MTAC meets to discuss the issues mentioned in the face-to-face visits. Mr. Reynolds reminds the committee that *IMPACT* must be folded into the instructional priorities that the schools already have. Following the meeting, he e-mails all involved personnel about the changes recommended and implemented by the MTAC group.

He meets his family at La Casita for dinner. Then, on his way to the Board meeting, he drops his daughter off at soccer practice. The evening is spent presenting reports to the Board of Education. He reminds them that to support the *IMPACT* model, funding must flow from federal, state, and local sources. He demonstrates that leadership at all levels is the key to creating a successful *IMPACT* program, a program that meets the needs of students and teachers.

Driving home, Mr. Reynolds reflects on the day and how it always flies by. He begins to line-up tomorrow's agenda: Battle of the Books celebration for the regional winners, appearance on local radio to talk about school budgets, review status of e-rate applications on SLD Web site, prepare EETT evaluation…

PRINCIPAL SCENARIO

Mrs. Leigh Allen, principal at Innovation Elementary, arrives early to begin her day. She has a busy schedule today which begins with an MTAC meeting in forty-five minutes. She sits at her desk, checks her e-mail, and responds to several--some from the central office, some from parents, one from a 5th grader who wants to talk with Mrs. Allen about a "Talent Show." She lists the essential information from the central office and a few announcements and reminders and emails it to her staff. She posts several events on the Parent Information Blog including a reminder that next Tuesday is an "Early Release Day" for students so that teachers can participate in a professional development activity.

Mrs. Allen walks down the hall to the media center where Mr. Stallings, the technology facilitator, and Ms. Hamilton, the media coordinator, are already preparing for the meeting. The technology facilitator and media coordinator are co-chairs of the MTAC. As an *IMPACT* model school, the MTAC committee also serves as the School Improvement Team. Several other teachers arrive, one representative from each grade level. In addition, Mrs. Boone, a respected community member and frequent volunteer, and Mr. Jefferies, a parent with children in the 1st and 4th grades, arrive. Mr. Huskins, representing art, music, and PE, is also present. The MTAC meeting goes well, and details of the professional development activities for next Tuesday are worked out. Mr. Stallings and Ms. Hamilton lead the discussion about the new writing program adopted by the system and its implementation within the *IMPACT* model. Mrs. Boone wishes to discuss Internet safety for students and faculty in light of a recent news report on television, and Mr. Jefferies concurs. A discussion of the policy and procedures currently in place is followed by a decision to add an Internet safety training session to next Tuesday's professional development activities. Mr. Stallings also agrees to integrate Internet safety into all of his collaborative units for this nine weeks grading period. Mr. Stallings states that he will also post a list of Internet safety tips on the parent information blog. Ms. Hamilton will add Internet safety tips to the school's news program.

Shortly after the MTAC meeting, students begin to arrive at school, and Mrs. Allen is out making her morning rounds, talking with parents, students, and teachers. She has a few minutes before she is scheduled for one of her three snapshot observations. The first one is with Mrs. Bell's third grade class. Mrs. Bell is a veteran teacher who has welcomed the change that the *IMPACT* model has brought to her instructional practices. Before going into the classroom, Mrs. Allen quickly reviews Mrs. Bell's lesson plans which are posted on her classroom Web site. As Mrs. Allen arrives with her laptop, she notes that Mrs. Bell's class is buzzing with activity. Mrs. Allen is able to document in the observation notes that there are several students working at a laptop center answering geography questions using an interactive worksheet developed in collaboration with Mr. Stallings. The worksheet consists of questions with hyperlinked Web sites that students use for research. Mr. Stallings is in the room working with students who are labeling the parts of a flower that they have drawn using Kidspiration software. Mrs. Bell has a small group on the floor in front of the room using a document camera to identify parts of flowers. Mrs. Allen knows from Ms. Bell's lesson plan that part of the class is in the media center reading Miss Rumphius with Ms. Hamilton. Mrs. Allen also takes notes on Mr. Stallings' contribution to the lesson for later use with the TFPAI instrument for evaluating technology facilitators.

LUNCH:

Mrs. Allen makes her usual visit to the cafeteria during 5th grade lunchtime. She speaks with the student who sent her the email regarding a talent show. A teacher assistant tells Mrs. Allen that Angela, a student, is not feeling well, and they need to contact her parents. Mrs. Allen pulls out her PDA, accesses Angela's basic information, and gives the emergency number to the teacher assistant. While walking up the hall to drop in on a collaborative meeting, Mrs. Allen is stopped by a 2nd grade teacher who needs bus information for her new student. Mrs. Allen checks her PDA and locates the bus number for the new student.

Mrs. Allen drops into the collaborative meeting for 3rd grade. The meeting has just started. All 3rd grade teachers are present along with the technology facilitator and media coordinator. The 3rd grade chair opens the meeting with a discussion of upcoming units. Classroom teachers share ideas and lesson plans for the units of study. The technology facilitator and media coordinator explain how their resources can enhance the lesson. One of the activities discussed is multimedia presentations as a final student product. The media coordinator states that this would be an appropriate time for explaining copyright. The technology facilitator states that he would be able to show the students how to import tables, graphs, and spreadsheets into the presentation. Mrs. Allen makes a couple of notes on her PDA to document the effective collaboration to the teachers' TPAI, the media coordinator's MCPAI, and the technology facilitator's TFPAI. Mrs. Allen shares her appreciation for the collaborative efforts that are going on. She states that she has just seen the benefits of this collaboration on students in an earlier observation. As she leaves the meeting, the art teacher enters to join the collaborative discussion.

Mrs. Allen sees the buses off, checks on the car riders, and returns to the office for an interview with a prospective new teacher. The interview committee consists of Mrs. Jones, a classroom teacher, the media coordinator, and the technology facilitator. Mrs. Allen introduces everyone at the table and begins the conversation with the statement, "Innovation Elementary is an *IMPACT* school, and this is how we do it here." Each committee member asks a series of questions, developed by them, to the interviewee. All the questions relate to the *IMPACT* model and relate to collaboration skills, flexibility, teaching style, comfort level with integration of technology, and skills in developing project-based learning activities. After concluding the interview and follow-up discussion with the committee, Mrs. Allen returns to her office to check e-mail, post information on the blog site, return phone calls, and transfer PDA notes to the appropriate file. Then she checks the doors and parking area and heads home.

Mrs. Allen returns to the school around 7 p.m. for the Technology Fair sponsored by the PTO.

TEACHER SCENARIO

CONTRIBUTED BY TEACHERS AT WESTWOOD ELEMENTARY IN ASHE COUNTY

Ms. Bell is a teacher at Innovation Elementary. Her day begins with bus duty and welcoming students to school. At 7:40 a.m. students begin to arrive in Ms. Bell's class and work on individual work until her administrative duties are done for the morning. Today is an important day for Ms. Bell's grade-level team. They will meet for half a day to work on collaborative units for the next nine weeks. The collaborative meeting will take place in the conference room and will involve all of Ms. Bell's team as well as the media coordinator and technology facilitator. Ms. Bell gathers her materials for the meeting. She wants to make sure that she includes everything she needs to help make this a successful collaboration. She checks the Collaboration Toolkit pre-session checklist to make sure that she has her lesson plans, pacing guide, calendar, and student assessments.

The team leader starts the collaborative planning session at 9 a.m. They identify their goals for the meeting and their goals for the first nine weeks. They identify the lessons that worked well last year and the lessons that need improvement. They work with the media coordinator and technology facilitator to schedule instructional activities that include their areas of expertise. Their main unit this nine weeks will be a study of rocks in North Carolina.

They begin the process by using the *Intel® Teach to the Future* unit plan. They identify the essential question and then the unit questions. After developing the questions, they develop lessons that will work within the unit and that focus on helping students answer the identified essential questions. The technology facilitator will conduct a mineral "Wanted" poster activity. Students will go to the computer lab, and the technology facilitator, with the assistance of the teacher, will guide students to several rock Web sites where students will gather information for their "Wanted" poster. The posters will be created and graded using the poster rubric created by the team and technology facilitator. The media coordinator will work with small groups of students to create Rockin' Poetry. Small groups of students will go to the media center throughout the week. The media coordinator will share different types of poetry and help students to create their own Rockin' Poetry. The lesson will be graded using the Poetry Rubric created by the team and media coordinator. As the meeting concludes, they verify times, schedules, resources, and responsibilities for all the team players involved in the units created in the collaborative planning session.

Ms. Bell's class is filled with students who have different learning styles and different capabilities. She appreciates the collaborative planning sessions, because she knows that she has taken advantage of all the resources that are available in her school. She knows her ideas are good, but she also knows the units are strengthened and improved through the collaboration of her team, the media coordinator, the technology facilitator, and other special area teachers.

As Ms. Bell goes to join her students for the remainder of the day, one of her students approaches her and asks, "What kind of cool stuff are we going to learn about now?" At this point, Ms. Bell realizes that her participation in the collaborative process directly affects her students and their learning. The more excited she is about what she is teaching, the more excited her students are about learning.

WORKS CITED

Abilock, D. "Information Literacy from Prehistory to K-20: A New Definition." *Knowledge Quest* 32.4 (2004): 9-11.

Bajcsy, R. "Technology and Learning." *Visions 2020: Transforming Education and Training through Advanced Technologies.* Washington, DC: U.S. Department of Commerce, 2002.

Dede, C. "Vignettes about the future of Learning Technologies." *Visions 2020: Transforming Education and Training through Advanced Technologies.* Washington, DC: U.S. Department of Commerce, 2002.

Georges, F. "Information Literacy, Collaboration, and 'Killer Apps': New Challenges for Media Specialists." *Library Media Connection* 23.2 (2004): 34-35.

Grove, K., N. Strudler, and S. Odell. "Mentoring Toward Technology Use: Cooperating Teacher Practice in Supporting Student Teachers." *Journal of Research on Technology in Education 37* (2004): 85-109.

Hord, S., W. Rutherford, L. Huling-Austin, and G. Hall. *Taking Charge of Change.* Austin, TX: Southwest Educational Development Laboratory, 1998.

Ivey, G. and K. Broaddus. "Just Plain Reading: A Survey of What Makes Students Want to Read in Middle School Classrooms." *Reading Research Quarterly 3.* 4 (2001): 350-377.

Lou, Y., et al. "Small Group and Individual Learning with Technology: A Meta-Analysis." *Review of Educational Research 71.* 3 (2001): 449-521.

Means, B. "Accountability in Preparing Teachers to Use Technology." *2000 State Educational Technology Conference Papers.* Washington, DC: Council of Chief State School Officers, 2000.

Schacter, J. *The Impact of Education Technology on Student Achievement: What the Most Current Research Has to Say.* Milken Exchange on Education Technology, 1999 <http://www.milkenexchange.org >.

United States. Department of Education. "Prisoners of Time." *National Education Commission on Time and Learning.* Apr. 1994. <http://www.ed.gov/ZipDocs/PrisonersOfTime.zip>.

RESEARCH AND EVALUATION
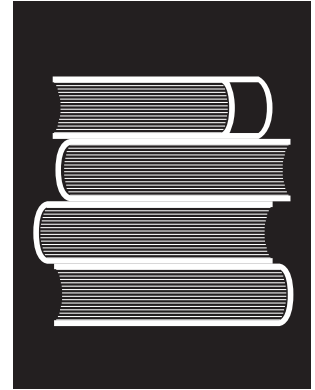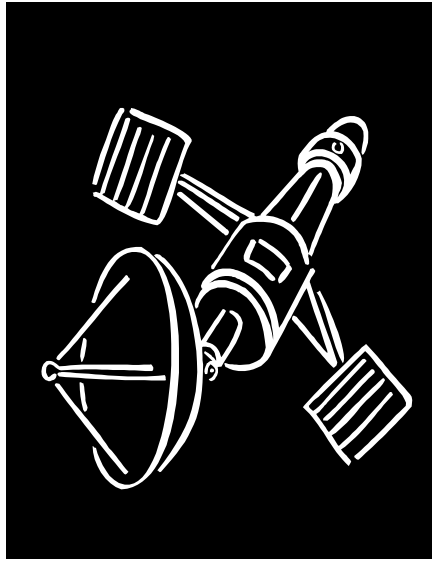
RESEARCH AND EVALUATION

COMPELLING DATA FROM CURRENT RESEARCH

"13,000 KIDS CAN'T BE WRONG" noted Professors Ross Todd, and Carol Kuhlthau of Rutgers University (Whelan, 2004, 46). In a study of 13,123 students from 39 effective school libraries in Ohio, Todd and Kuhlthau found that an effective school library, lead by a credentialed school librarian who has a clearly defined role in information-centered pedagogy, plays a critical role in facilitating student learning for building knowledge (Todd, 2004, 6).

Existing research into media and technology programs offers us a baseline of information to begin our own building-, system-, and state-level evaluations. Some of the most compelling data that illustrates how media and technology programs impact student achievement is summarized in information that follows.

Since 1993 when Keith Curry Lance, Linda Welborn, and Christine Hamilton-Pennell first published the Colorado Study, *The Impact of School Library Media Centers on Academic Achievement,* school library media coordinators have had baseline research on the importance of school librarians and their programs.

LIBRARY MEDIA CENTER STAFFING

TEST SCORES TEND TO BE HIGHER WHEN THERE IS:

- A librarian
- A full-time librarian rather than a part-time one
- A part-time librarian rather than no librarian at all

LIBRARY MEDIA CENTER HOURS OPEN

HIGHER LEVELS OF LIBRARIAN STAFFING LEAD TO:

- Longer LMC hours of operation
- Higher levels of library media staff activity
- Higher student usage, and consequently, higher test scores

STAFF ACTIVITIES

The higher the level of librarian staffing, the greater the percentage of library media staff hours dedicated to:

- Delivering library/information literacy instruction to students,

- Planning instructional units cooperatively with teachers, and

- Providing in-service training to teachers and other staff.

- Regardless of the level of librarian staffing, the more library media staff time devoted to these activities, the higher the test scores.

IN OTHER RESEARCH LANCE ALSO FOUND:

LIBRARY MEDIA PROGRAM USAGE

- The more often students receive library/information literacy instruction in which library media staff are involved, the higher the test scores.

TEST SCORES ALSO TEND TO BE HIGHER WHEN:

PARTNERSHIPS

- There is a cooperative relationship between the LMC and the public library

TECHNOLOGY

- The library media program provides online access to information—particularly the facilities required to reach the Internet and the World Wide Web.

POLICY

- The LMC has a collection development policy that addresses reconsideration of materials.

  (Lance, et al. 1999, 5-6)

Since 2000, the Lance study has been replicated in 14 states: Alaska, Arkansas, Florida, Iowa, Illinois, Massachusetts, Missouri, Minnesota, Michigan, North Carolina, New Mexico, Oregon, Pennsylvania and Texas.

The results from the other state studies on the impact of school library media programs on student achievement have validated Lance's original study. For instance:

MICHIGAN	IN MIDDLE SCHOOLS, SEVENTH GRADE READING SCORES USUALLY RISE AS SCHOOL LIBRARIES REPORT: ▪ higher numbers and weekly hours of librarian and total library staff; ▪ offering more weekly hours for flexible access/scheduling; ▪ librarians spending more time planning and teaching cooperatively with classroom teachers, and providing in-service training to teachers; ▪ larger collections of print volumes and video materials; ▪ access to more library and school computers that connect to Access Michigan, library catalogs and licensed databases, and the Internet and the World Wide Web; ▪ more frequent individual and group visits to the library; and ▪ spending more on library operations. (Rodney, Lance, Hamilton-Pennell, 2003)
NEW MEXICO	ACHIEVEMENT TEST SCORES TEND TO RISE WITH INCREASES IN: ▪ school librarian and total library staff hours per 100 students; ▪ print volumes per student; ▪ periodical subscriptions, video materials, and software packages per 100 students; and ▪ school library expenditures per student. (Lance, Rodney, and Hamilton-Pennell, 2003, VII)
PENNSYLVANIA	READING TEST SCORES INCREASE WITH INCREASES IN: ▪ school librarian staff hours; and ▪ support staff hours. TEST SCORES INCREASE AS SCHOOL LIBRARIANS ▪ teach cooperatively with teachers; ▪ integrate information literacy skills standards and curriculum; ▪ provide in-service training to teachers; ▪ serve on standards committee; ▪ serve on curriculum committee; and ▪ manage information technology. (Lance, Rodney, and Hamilton-Pennell, 2000, 6-7)

THE ROLE OF TECHNOLOGY

Technology has an important role to play in K-12 education, but it will not solve all educational problems. Technology can:

- Make learning more interactive.

- Enhance the enjoyment of learning.

- Individualize and customize the curriculum to match learners' developmental needs as well as personal interests.

- Capture and store data for informing data-driven decision making.

- Enhance avenues for collaboration among family members and the school community.

- Improve methods of accountability and reporting.

Ultimately technology may transform the educational content and motivate students toward life-long learning. (NCREL 1999)

For technology to play a positive role, the following factors must be given consideration:

- The success or failure of technology is more dependent on human and contextual factors than on hardware or software. The extent to which teachers are trained to use computers to support learning plays a role in determining whether or not technology has a positive impact on achievement.

- The success or failure of technology involves seeing it as a valuable resource that requires determining where it can have the highest payoff and then matching the design of the application with the intended purpose and learning goal.

- The success of technology depends on having significant critical mass numbers and types of technology applications that are appropriate to the learning expectations of the activity.

- The most pervasive perception among teachers is that computers have improved the climate for learning by increasing student motivation in subjects for which they use computers.

  (NCREL 1999)

HUMAN AND CONTEXTUAL FACTORS	**THE MOST IMPORTANT FACTOR AFFECTING STUDENT LEARNING IS THE TEACHER.** (Wright, Horn, Sanders, 1997, 63) **TEACHERS' BELIEFS WILL DETERMINE THE EXTENT TO WHICH THEY WILL USE THIS MOTIVATING TECHNOLOGY IN THE CLASSROOM.** (Smita and Leonard, 2002, 41)
MATCHING THE DESIGN OF THE APPLICATION WITH THE INTENDED PURPOSE AND LEARNING GOAL	**THE FINDINGS FROM THESE STUDIES SHOW THAT COMPUTERS AND TECHNOLOGY CAN BE AN IMPORTANT COMPONENT OF EDUCATIONAL REFORM AND RELATED TO STUDENT LEARNING. THE RESULTS CLEARLY SUPPORT THE FINDINGS FROM OTHER CATEGORIES OF RESEARCH THAT INDICATE THAT COMPUTERS AND TECHNOLOGY ALONE WILL ACCOMPLISH LITTLE, AND THAT HOW IT IS USED AND HOW A PARTICULAR PROGRAM IS PLANNED AND IMPLEMENTED IS EQUALLY, IF NOT MORE, IMPORTANT.** (Fouts, 2000, 29).
SIGNIFICANT CRITICAL MASS NUMBERS AND TYPES OF TECHNOLOGY APPLICATIONS	**WE SEE THAT AS THE NUMBER OF COMPUTERS AVAILABLE IN THE CLASSROOM GOES UP, SO DOES THE USE OF COMPUTERS . . . IF TEACHERS HAVE COMPUTERS IN THEIR ROOM, THEY USE THEM; IT THEY DON'T HAVE THEM, THEY DON'T.** (Norris and Soloway, 2003, 60) **OTHER DATA SUGGEST THAT SCHOOL TECHNOLOGY EXPENDITURES ON EQUIPMENT, TRAINING, AND SUPPORT INFLUENCE TEACHERS' DECISIONS ON HOW TO USE TECHNOLOGY IN SCHOOL.** (Anderson and Becker, 2001)
INCREASING STUDENT MOTIVATION	**THE COMPUTER, IN EFFECT, GAVE ADDED INTEREST AND MOTIVATION WITHIN THE WRITING PROCESS TO STUDENTS IN REACHING THEIR FINAL OUTCOMES. THE USE OF TECHNOLOGY GIVES THEM A SENSE OF EMPOWERMENT AND REWARD AS THEY GO THROUGH THE WRITING PROCESS.** (Daniels, 2004, 172)

RESEARCH

EVIDENCE-BASED EDUCATION

Grover J. (Russ) Whitehurst, Assistant Secretary of Education, defines evidence-based education as "the integration of professional wisdom with the best available empirical evidence in making decisions about how to deliver instruction" (Student Achievement and School Accountability Conference, October 2002). He further acknowledges that

WITHOUT PROFESSIONAL WISDOM EDUCATION CANNOT

- adapt to local circumstances
- operate intelligently in the many areas in which research evidence is absent or incomplete

[and]

WITHOUT EMPIRICAL EVIDENCE EDUCATION CANNOT

- resolve competing approaches
- generate cumulative knowledge
- avoid fad, fancy, and personal bias

It is difficult to implement an experiential, instructional intervention within a controlled environment in education. Consequently, collecting and analyzing empirical data to support and modify instructional practice has been viewed by education practitioners and researchers as problematic. For education practitioners to combine professional wisdom with professional knowledge, they must be able to critically determine if the evidence of a school or classroom reform is valid and if that particular reform is applicable to their situation. In order for teachers and administrators to be successful in this standards-based era of education, they must be able to recognize sound empirical research and interpret their own school data. Although it is not possible to provide in-depth procedures for reviewing data and conducting research here, a brief explanation is provided on the most prominent, current methods of inquiry and data collection in education: scientifically-based research, action research, and data-driven decision-making.

SCIENTIFICALLY BASED RESEARCH

According to Title IX PART A (SEC. 9101) of the No Child Left Behind legislation, "scientifically based research:"

(A) means research that applies rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to educational activities and programs; and

(B) includes research that -

   (i) employs systematic, empirical methods that draw on observation or experiment;

   (ii) uses rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn;

   (iii) relies on measurements or observational methods that provide reliable and valid data across evaluators and observers, across multiple measurements and observations, and across studies by the same or different investigators;

   (iv) is evaluated using experimental or quasi-experimental designs in which individuals, entities, programs, or activities are assigned to different conditions and with appropriate controls to evaluate the effects of the condition of interest, with a preference for random-assignment experiments, or other designs to the extent that those designs contain within-condition or across-condition controls;

   (v) ensures that experimental studies are presented in sufficient detail and clarity to allow for replication or, at a minimum, offer the opportunity to build systematically on their findings; and

   (vi) has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective, and scientific review.

School leaders and educators who receive federal funds and work with outside evaluators and researchers need to recognize strong scientifically based research practices. One source that identifies "scientifically based interventions (studies)" is the What Works Clearinghouse (WWC). Contracted by the Department of Education, Institute of Sciences, the What Works Clearinghouse

> established a set of standards for the review of experimental and quasi-experimental research….[Using these standards] the WWC identifies studies that provide the strongest evidence of effects: primarily well conducted randomized controlled trials and regression discontinuity studies, and secondarily, quasi-experimental studies of especially strong design (Retrieved on May 17, 2005 from the What Works Clearinghouse <http://w-w-c.org/reviewprocess/standards.html>).

ACTION RESEARCH

Action research involves the in-depth study of one's own classroom or school over an established period of time. In action research, the researcher (i.e. teacher, technology facilitator, media coordinator) is not removed from the intervention or the environment but, rather, is a key component of either the intervention or the environment. Like more complex research methodologies, action research involves the systematic collection and analysis of data.

ACTION RESEARCH INVOLVES:

- Identifying a problem or issue.
- Researching current literature on the issue.
- Designing a strategy to address the issue.
- Implementing the designed intervention.
- Gathering and analyzing data.
- Taking action and sharing results.

It is important to remember that at each stage of action research, the researcher is expected to reflect, but this is especially important at the completion of the research study. Researchers should reflect on their own learning and the application of this learning to the future of classroom or program practice. Action researchers should be encouraged to document and share both their process and the discoveries of their research. Sharing action research can include article publications and conference presentations.

DATA-DRIVEN DECISION MAKING IN THE MEDIA AND TECHNOLOGY PROGRAM

MEASURING THE MEDIA AND TECHNOLOGY PROGRAM

The school library media coordinator and technology facilitator should collect key data to measure the status and progress of the program. Such data should include, but not be limited to:

- Media Center Collection Statistics (collection age, circulation, titles per student, etc.)
- Equipment Inventory and Information (age of equipment, computers per student, computer lab usage, etc.)
- Numbers and types of requests for assistance, percentage of requests fulfilled and unfulfilled
- Computer Skills Test Scores
- AMTR and TCO data

The media coordinator and technology facilitator should use data to advocate for budgetary resources for the program and to demonstrate the impact of the program on students.

USING SCHOOL DATA FOR PROGRAM DECISIONS

The media coordinator and technology facilitator should use data to make key decisions concerning the program. Such data should include, but not be limited to:

- School Improvement Plan goals
- Student Testing Results
- Safe Schools Plan
- District and School Technology Plans
- Faculty/Staff Needs Assessments
- AMTR and TCO data

The media coordinator and technology facilitator should use this data to decide such issues as:

- Integration/Instructional Focus
- Grade Level Collaboration Priorities
- Purchasing Priorities
- Professional Development Offerings

EVALUATION

The evaluation of building- and system-level programs is one of the most important responsibilities of school library media and technology professionals. In this age of accountability, we must have data to illustrate the effectiveness of our media and technology programs. It is critical that we have the data to demonstrate how quality media and technology programs contribute to student achievement and effective teaching within a school.

Because we value education, we should measure it. We owe it to all teachers, children, and the community, as well as ourselves, to continue to document the impact of media and technology programs on teaching, learning, and, ultimately, student achievement. This section offers a variety of information to assist educators in the evaluation process: strategies for assessing individual programs, rubrics for program evaluation, and the performance evaluation instruments for professional staff. Choosing to use these resources is a commitment to program improvement!

"EDUCATION COUNTS IN THE UNITED STATES. IT COUNTS BECAUSE EVERY ELEMENT OF PERSONAL WELL BEING, SOCIAL PROGRESS, AND ECONOMIC DEVELOPMENT IS BOUND INEXTRICABLY TO KNOWLEDGE, LEARNING, AND SKILL. BECAUSE WE VALUE EDUCATION WE SHOULD MEASURE IT. . . . [WE BEGIN TO VALUE ONLY WHAT WE CAN MEASURE. WE MUST LEARN TO MEASURE WHAT WE VALUE RATHER THAN VALUING WHAT WE CAN EASILY MEASURE"

(Ralph 1991).

HOW TO EVALUATE PROGRAMS

The development of any school library media and technology program involves formative and summative evaluation through the collection of data over time and the analysis/ synthesis of the data to make informed decisions regarding the future direction of the program. It is important to create a plan with specific indicators, methods/measures, benchmarks, and findings delineated.

Formative evaluation is ongoing throughout the year. Devices to aid in the collection of this data include rubrics designed to measure *IMPACT* components, benchmarks, and output measures.

Summative evaluation reviews formative data to determine the extent to which pre-established program goals have been achieved. Summative evaluation should occur annually. There are many reasons why the evaluation of media and technology programs is difficult, most specifically:

VARIETY AND COLLABORATION MAKE ISOLATION OF PROGRAMS DIFFICULT.

1. Good media and technology resources and programs are part of a school's infrastructure, thoroughly infused and embedded in a school's overall approach to teaching and learning. Good media and technology programs and resources acknowledge the wide variety of learning and teaching styles that make up a school building and address ways to make each person—student and teacher— successful. This success translates into increased self-esteem, higher motivation, and, ultimately, student achievement.

2. Truly successful media and technology programs are based on collaboration among the media coordinator, the technology facilitator, and the individual classroom teacher. Because collaboration acknowledges the contributions of all to the teaching/learning process, isolation of media and technology programs once again is a difficult process.

STUDYING A MOVING TARGET IS DIFFICULT.

3. Finally, the perception exists that research into media and technology resources and programs is the study of "a moving target, [that] rapid technological changes and advances in [hardware and] software development have made some findings obsolete even before they are published" (NCREL 1999, 1).

GUIDELINES FOR EVALUATION

Experience has produced a variety of guidelines to assist us in program evaluation. The key to valid evaluation of school library media and technology programs is to measure the results, not the resources and technology itself. In an effort to assist states in justifying the investment in technology, the U.S. Department of Education held a series of conferences on evaluation in 1999 and 2000. The following steps to evaluation in general, and to technology evaluation specifically, have resulted from these conferences:

GOALS

- Where do we want to go?

COMPARISONS

- Where are we now?
- Where were we before?
- Where are others like us?
- Are there others like us who are ahead of us?

LEARNING

- What have we learned from our own experience?
- If there are others like us who are ahead of us, what are they doing?
- What does the research say?
- What does "best practice" suggest?

(Van der Ploeg 2000)

STEPS TO EVALUATION

1. Set clear, specific, attainable goals.

2. Build multiple measures; keep them simple; explain them.

3. Measure all persons.

4. Collect, record, and store the data.

5. Report the data, often; draw pictures.

6. Know what the measures miss.

7. Measure resources as well as problems.

8. Focus first on comparisons over time and then on comparisons to others.

9. Study variability as well as averages.

10. Enlist a critical friend, a faithful witness.

11. Try something new.

    (Van der Ploeg 2000)

USING OUTPUT MEASURES FOR EVALUATION

EVALUATION, SUPPORT, AND FUNDING

Good schools require school library media and technology programs that are integral to learning and teaching; however, in times of limited revenues and increasing demands, media and technology programs must compete with other educational priorities to obtain sufficient resources. To ensure that administrative support and financial resources are provided for quality programs, it is critical that media and technology personnel regularly evaluate and document all aspects of their programs. Research and data are needed to demonstrate how quality media and technology programs contribute to student learning and effective teaching.

USE AND AVAILABILITY OUTPUT MEASURES

For many years, public libraries have used "output measures" to evaluate and measure the effectiveness of programs and services. This process approach to evaluation was adapted by Frances Bryant Bradburn from her book, Output Measures for School Library Media Programs.

Output measures provide the data needed to document how the resources and services in the school library media center and in all areas of technology are used, and how well the program meets the needs of its patrons. "Use measures" provide data about how often resources or services are used by patrons. "Availability measures" document not only whether requested materials and services are available, but also whether the media coordinator and technology facilitator are accessible to assist students or to participate in collaborative activities with teachers.

OUTPUT MEASURES DOCUMENT:

- How resources and services are used
- How well the program meets the needs of its patrons

USE MEASURES DOCUMENT:

- How often resources or services are used

AVAILABILITY MEASURES DOCUMENT:

- If requested materials and services are available
- If the media coordinator/technology facilitator is accessible to assist

---

PUTTING OUTPUT MEASURES TO WORK

Using output measures, media and technology personnel can:

- Document which aspects of an individual media and technology program (or across programs in a district) are functioning well and which aspects of the program(s) need attention
- Evaluate how well collections and services support curricular needs
- Produce a compelling argument for maintaining/ increasing staff and budget
- Justify the value and need for flexibly accessed media and technology programs

MAKING SURE YOU DETERMINE AND OBTAIN TYPE OF INFORMATION NEEDED

Data collection for some measures is relatively simple. For others, the process may take significantly more time and effort. It is important, therefore, to determine the information necessary to justify recommendations or "to make a case" and to select ONLY the measures that will provide the most compelling arguments.

IMPORTANT MEASURES

Following are measures for evaluating and improving school library media and instructional technology programs.

MEASURES FOR EVALUATING AND IMPROVING SCHOOL LIBRARY MEDIA AND TECHNOLOGY PROGRAMS

Adapted From *Output Measures for School Library Media Programs* by Frances Bryant Bradburn with permission of Neal-Schuman Publishers, Inc.

FACILITIES USE MEASURE

The amount of time a number of individuals are using the media center, computer labs, wireless labs, or video studio on a daily, weekly, monthly, or yearly basis. For many to whom these data will be reported, how the media and technology facilities are being used at a given moment is important information to tally as well.

TYPES OF MATERIALS USE MEASURES

MATERIALS USE MEASURES
Calculate the specific resources being used within and outside the school library media center.

CIRCULATION RATE
Gives the number of resources checked out on a daily, weekly, or monthly basis. This figure can be broken down to reflect specific areas of the collection or individual student and teacher populations. It can also be used to track circulation of various technologies: wireless laptop carts, portable keyboards, PDAs, GPS peripherals. (Separate collection and technology statistics.)

IN-LIBRARY USE RATE
Tallies the number of resources being used within the media center at a specific time. As the name implies, these materials do not circulate, but are being used within the library by students and/or teachers.

ELECTRONIC RESOURCES HIT RATE
Calculates the number of times students and teachers use stand-alone or networked electronic resources both within the media center or, if resources are networked to individual classrooms, throughout the school. (May be provided by vendor)

TURNOVER RATE
Provides the average number of times a given item within a collection circulates during the year.

FURNITURE AND EQUIPMENT USE RATE
Estimates the amount of time a piece of furniture or equipment is being used during the school day.

CURRICULUM SUPPORT REQUEST RATE
Calculates the number of requests from teachers that deal directly with their need for teaching support. This figure is most helpful when paired with the actual request for resources or services.

AVAILABILITY MEASURES

RESOURCE AVAILABILITY MEASURES

These are calculations designed to reflect the number of materials available for students and teachers.

POTENTIAL CURRICULUM SUPPORT RATE
Measures the collection's potential to support a specific area or areas of an individual school's curriculum.

CURRICULUM SUPPORT FILL RATE
Figures how effectively the existing media and technology collection is supporting a school's curriculum. This measure can be calculated from both the teacher's and the student's perspective.

INDEPENDENT READING/INFORMATION FILL RATE
A student-generated statistic that monitors how well the collection is meeting the leisure reading/activity needs of a student population.

SCHOOL LIBRARY MEDIA COORDINATOR/ TECHNOLOGY FACILITATOR AVAILABILITY MEASURES

These measures illustrate whether the school library media coordinator and/or the technology facilitator are available to assist both students and teachers at point of need.

PLANNING OPPORTUNITY RATE
Gives the percentage of time a media coordinator and/or the technology facilitator are able to completely fill a teacher's or team's request for assistance in planning a lesson or unit of instruction.

TEACHING AVAILABILITY MEASURE
Provides the percentage of time the media coordinator and/or the technology facilitator are available to work with individuals, small groups, or whole classes at the specific request of a teacher. Daily fixed schedules are not included in this calculation.

TROUBLESHOOTING REQUEST RATE
Represents any request for assistance in solving an equipment problem.

PROFESSIONAL DEVELOPMENT AVAILABILITY MEASURES

This is a calculation of the number and kind of professional development opportunities available to an educational community.

PROFESSIONAL DEVELOPMENT REQUEST RATE
Lists the percentage of professional development activities offered compared to those requested by school personnel.

PROFESSIONAL DEVELOPMENT ATTENDANCE RATE
Calculate the percentage of staff attending specific professional development opportunities compared to potential participants.

REFERENCE CHART: MEASURES AND WHAT THEY SUPPORT

Reprinted with permission of Neal-Schuman Publishers, Inc. from *Output Measures for School Library Media Programs* by Frances Bryant Bradburn.

SUPPORT-MEASURES	BUDGET	FLEXIBLE SCHEDULE	PLANNING TIME	STAFFING	EXISTING DATA	EFFORT REQUIRED[+]	TIME FRAME
FACILITIES USE RATE	X	X		X		Medium	Specified
CIRCULATION RATE	X	(X)		X	X*	Low	Specified
IN-LIBRARY USE RATE	X	X	(X)	X		Medium	Specified
ELECTRONIC RESOURCE HIT RATE	X			X	X*	Low	Specified
ONLINE RESOURCES SUCCESS RATE	X			X		High	Specified
TURNOVER RATE	X				X*	Low	Specified
FURNITURE EQUIPMENT USE RATE	X	(X)		X		Medium	Specified
POTENTIAL CURRICULUM FILL RATE	X		(X)	(X)		High	Specified
CURRICULUM SUPPORT FILL RATE	X	(X)	(X)	(X)		High	Specified
INDEPENDENT READING-INFORMATION FILL RATE	X	(X)	(X)	(X)	Survey	High	Specified
MEDIA COORDINATOR/ TECHNOLOGY FACILITATOR AVAILABILITY RATE		X	X		Survey	High	Specified
PLANNING OPPORTUNITY RATE		X	X	X		High	Over time
TEACHING AVAILABILITY RATE		X		X		High	Over time
TROUBLESHOOTING RATE		X	X			High	Specified or Over time
PROFESSIONAL DEVELOPMENT REQUEST RATE	X	X				Medium	Over time
PROFESSIONAL DEVELOPMENT ATTENDANCE RATE	X	(X)				Low	Specified

(X) = Data does not support   *With automated circulation systems   [+]Effort required:

Low – data either already available or easily calculated. **Medium** – Data can be gathered while media coordinator, technology facilitator, or designee does other tasks: minimum interruption. **High** – Requires extra time and effort to gather and calculate data. These measurements, together with those specifically targeted to address a certain issue, can be used to make a stronger case.

RESEARCH AND EVALUATION MODELS

COMPREHENSIVE PROGRAM EVALUATION MODEL

THE SEIR*TEC MODEL FOR FORMATIVE EVALUATION

The SEIR*TEC Model for Formative Evaluation is primarily intended to guide formative evaluation of programs that apply technology to teaching and learning activities in classrooms (SEIR*TEC Framework, 2004).

It is hoped that this framework will be valuable for a variety of reasons:

- Evaluation is a relatively expensive undertaking and is generally under-funded as a component of education technology initiatives.
- Granting agencies are raising expectations of accountability that come with technology-focused awards.
- The collective understanding of "how technology works" to improve teaching and learning has expanded, and old assumptions may no longer hold.
- Most educators, schools, and local education agencies lack the internal capacity to effectively evaluate complex technology programs.

The framework provides a step-by-step approach to help non-evaluators plan and implement efficient, well-founded, theoretically sound evaluations of technology programs in education settings by breaking a complex process into manageable pieces:

- Planning the evaluation
- Explaining how the program is supposed to work
- Establishing program goals, objectives, and strategies
- Developing the basic components of an evaluation plan
- Identifying data sources for the evaluation
- Implementing the evaluation effort
- Communicating the evaluation results

It also provides tested resources, data-collection instruments tailored to technology implementations, and examples to guide the above steps.

TECHNOLOGY FOCUSED EVALUATION MODELS

NCREL ENGAUGE MODEL

The NCREL enGuage Model is designed to help districts and schools plan and evaluate the system wide use of educational technology. In doing so EnGauge provides insights into tracking progress with technology at three levels: students, educators and systems. Their resources include online evaluation and assessment tools. Visit <http://www.ncrel.org/engauge/> for more information (enGauge®: A Framework for Effective Technology Use).

COLLABORATION LED BY LOCAL EVALUATORS: A PRACTICAL, PRINT- AND WEB-BASED GUIDE

To understand the overall process involved in establishing a system of evaluation, visit <http://www.neirtec.org/products/evaluation_guide/neirtec_evalguide.pdf.> (Collaboration Led by Local Evaluators: A Practical, Print- and Web-Based Guide). This would be particularly effective to use within the system-level technology planning process.

TECHNOLOGY IN SCHOOLS: SUGGESTIONS, TOOLS AND GUIDELINES FOR ASSESSING TECHNOLOGY IN ELEMENTARY EDUCATION

Key audiences for this handbook are those people who collect, store, publish, or use information about technology in its applications in schools and districts. The guide is organized around key questions that the Technology in Schools Task Force authors have determined to be central, pertaining to the type, availability, and use of technology in education systems. (*Technology in Schools,* 2005 <http://nces.ed.gov/pubs2003/tech_schools/>).

USER-FRIENDLY HANDBOOK FOR MIXED METHOD EVALUATIONS

Provided by the National Science Foundation (NSF), this document outlines the evaluation process recommended for NSF-funded projects. Visit <http://www.ehr.nsf.gov/EHR/REC/pubs/NSF97-153/start.htm> for more information. *(User-Friendly Handbook for Mixed Method Evaluations)*

PROGRAM EVALUATION RUBRICS

One of the most effective ways to determine how well media and technology programs are meeting the needs of students, teachers, staff, and community is through self-reflection. While teacher and student surveys certainly provide a realistic assessment of the daily impact of programs and services on the teaching and learning process, an objective comparison of an individual program with state and national standards and recommendations offers an opportunity for self-assessment.

The rubrics that follow, while based on the chapters found in *IMPACT*, provide a global perspective of school library media and technology programs at both the building and system levels. Use these rubrics to reflect on your individual program. Then begin the process of developing your vision of the future—outstanding school library media and technology programs that impact teaching and learning for high student achievement and life-long learning.

NOTE: The rubric comparison points are Outstanding, Developing, Minimum, and Below Minimum. All North Carolina media and technology programs must have the expectation that they will be at least at a minimum level for successful teaching and learning to occur. If this is not the case, immediate action should be taken by media and technology personnel, the principal, and the Media and Technology Advisory Committee.

MEDIA AND TECHNOLOGY PROGRAM EVALUATION RUBRICS

NOTE: **"Most"** represents more than half and **"some"** represents less than half.
Terms designated with an asterisk* are defined at the end of the document.

TEACHING AND LEARNING

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
INSTRUCTIONAL DELIVERY – Meaningful instruction in the full range of concepts and skills that students need to interact effectively with all information resources.				
INTEGRATION	Information and Computer/Technology skills are integrated with all curriculum areas and grade levels.	Information and Computer/Technology skills are integrated across most curriculum areas and grade levels.	Information and Computer/Technology skills are integrated across **core curriculum areas***and some grade levels.	Information and Computer/Technology skills are taught in isolation from curriculum areas.
DIFFERENTIATED INSTRUCTION	**Differentiated instruction*** is addressed through instructional strategies designed for all students.	**Differentiated instruction*** is addressed through instructional strategies designed for most students.	**Differentiated instruction*** is addressed through instructional strategies designed for some students.	**Differentiated instruction*** is not provided.
LEARNING STYLES	The **learning styles*** of all students are addressed through a variety of instructional resources and strategies.	The **learning styles*** of most students are addressed through a variety of instructional resources and strategies.	The **learning styles*** of some students are addressed through a variety of instructional resources and strategies.	**Learning styles*** are not addressed in instructional resources and strategies.
LITERACIES FOR THE DIGITAL AGE	All learning experiences promote **literacies for the digital age*.**	Most learning experiences promote **literacies for the digital age*.**	Some learning experiences promote **literacies for the digital age*.**	Learning experiences do not promote **literacies for the digital age*.**
RESOURCES IN LEARNING EXPERIENCES	All learning experiences are examined for application of appropriate resources.	Most learning experiences are examined for application of appropriate resources.	Some learning experiences are examined for application of appropriate resources.	Learning experiences do not include the application of appropriate resources.
RESEARCH PROCESS	A **systematic research process*** is consistently implemented school-wide.	A **systematic research process*** is implemented at some grade levels or departments.	A **systematic research process*** is implemented in some classrooms.	No **systematic research process*** is implemented.
FLEXIBLE ACCESS FOR INSTRUCTION	Media and technology flexible access for instruction is implemented at all grade levels.	A fixed/flex media and technology schedule for instruction is implemented for no more than a year, and a plan for the implementation of flexible access in the following year is in place.	A fixed/flex media and technology schedule for instruction is implemented.	Fixed scheduling for media and technology instruction is implemented at all grade levels.

TEACHING AND LEARNING

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
COLLABORATION – Partnership between media and technology professionals and teachers to design instructional activities that promote student achievement *(See Collaborative Planning Session Rubric for additional information)*				
COLLABORATION BETWEEN SLMC & TF	Collaboration occurs between media and technology personnel all the time.	Collaboration occurs between media and technology personnel most of the time.	Collaboration occurs between media and technology personnel on some occasions.	Collaboration does not occur between media and technology personnel.
COLLABORATIVE ENVIRONMENT	An environment based on shared instructional goals, a shared vision, and a climate of trust and respect is established that fosters collaboration between media and technology personnel and all teachers.	An environment based on shared instructional goals, a shared vision, and a climate of trust and respect is established that fosters collaboration between media and technology personnel and most teachers.	An environment based on shared instructional goals, a shared vision, and a climate of trust and respect is established that fosters collaboration between media and technology personnel and some teachers.	An environment that fosters collaboration between media and technology personnel has not been established.
COLLABORATION FOR DATA-DRIVEN INSTRUCTION	Media and technology personnel consistently collaborate with teachers in using assessment data to design instructional activities.	Media and technology personnel frequently collaborate with teachers in using assessment data to design instructional activities.	Media and technology personnel occasionally collaborate with teachers in using assessment data to design instructional activities.	Media and technology personnel do not collaborate with teachers.
BEST PRACTICES	The media and technology program implements **best practices*** for instruction at all grade levels.	The media and technology program implements **best practices*** for instruction at most grade levels.	The media and technology program implements **best practices*** for instruction in some classrooms or at some grade levels.	The media and technology program does not implement **best practices*** for instruction.
INSTRUCTIONAL FEEDBACK	**Instructional feedback*** is provided to students all of the time to ensure that learning goals are being met.	**Instructional feedback*** is provided to students most of the time to ensure that learning goals are being met.	**Instructional feedback*** is provided to students some of the time to ensure that learning goals are being met.	**Instructional feedback*** is not provided to students to ensure that learning goals are being met.
CO-TEACHING	An environment is established that fosters **co-teaching*** between media and technology personnel and all teachers.	An environment is established that fosters **co-teaching*** between media and technology personnel and most teachers.	An environment is established that fosters **co-teaching*** between media and technology personnel and some teachers.	An environment for **co-teaching*** between media and technology personnel and teachers has not been established.

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
PROFESSIONAL DEVELOPMENT – Appropriate professional development provided for individual growth.				
PROFESSIONAL DEVELOPMENT	Professional development for teachers related to the media and technology program is included in the school-wide professional development plan and addresses school improvement plan goals.	Professional development for teachers related to the media and technology program is included in the school-wide professional development plan.	Professional development for teachers related to the media and technology program is provided in isolation from the school-wide professional development plan.	Professional development for teachers related to the media and technology program is not provided.
MEDIA AND TECHNOLOGY PROFESSIONAL DEVELOPMENT	Media and technology personnel are provided professional development opportunities through local, state, and national conference/ workshop attendance that are a part of the school-wide professional development plan.	Media and technology personnel are provided professional development opportunities through local or state conference/ workshop attendance that are a part of the school-wide professional development plan.	Media and technology personnel are provided professional development opportunities through local or state conference/ workshop attendance.	Media and technology personnel are not provided professional development opportunities.

INFORMATION ACCESS AND DELIVERY

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
ACCESS TO RESOURCES – **Access to resources regardless of ability or physical challenges**				
FLEXIBLE ACCESS (NOTE: does not apply to career technology education labs)	Computer lab and media center facilities and resources are available through flexible access.	Computer lab and media center facilities and resources are available on a fixed/flex schedule for no more than a year, and a plan for implementing flexible access in the following year is in place.	Fixed/flexible access to computer lab and media center facilities and resources is provided.	Computer lab and media center facilities are available only on a fixed schedule.
ACCESS TO ELECTRONIC RESOURCES	The school's electronic resources are available throughout the school before, during, and after school, as well as through remote access.	The school's electronic resources are available throughout the school before, during, and after the school day.	The school's electronic resources are available during the school day within the school library media center and computer labs.	The school's electronic resources are available part of the school day from the school library media center and/or computer labs.
EQUITABLE ACCESS TO RESOURCES	The school's media and technology resources are available school wide before, during, and after school.	The school's media and technology resources are available school wide throughout the entire school day.	The school's media and technology resources are available during the school day within the school library media center and computer labs.	The school's media and technology resources are not available throughout the school day from the school library media center and/or computer labs.
EQUITY OF ACCESS (assistive/adaptive)	Equitable access to resources and facilities that exceed requirements of federal ADA and special education laws is provided for identified students and others with special needs.	Equitable access to resources and facilities that meet minimum requirements of federal ADA and special education laws is provided for identified students and others with special needs.	Equitable access to resources that meet minimum requirements of federal ADA and special education laws is provided for identified students.	Equitable access to resources and facilities is not provided for all students.
ORGANIZATION OF RESOURCES	All media and technology resources, including classroom sets, are cataloged and circulated using standard library conventions or a comparable tracking system.	All media and technology resources are cataloged and circulated using standard library conventions or a comparable tracking system.	Most media and technology resources are cataloged and circulated using standard library conventions or a comparable tracking system.	Resources are not cataloged and circulated using standard library conventions or a comparable tracking system.

INFORMATION ACCESS AND DELIVERY

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
DESIGNING FACILITIES FOR TEACHING AND LEARNING – Adequate facilities to meet the instructional needs of teachers and the learning needs of students				
AESTHETICALLY PLEASING ENVIRONMENT	Media and technology facilities provide an aesthetically pleasing and stimulating environment with numerous attractive decorations, current information displays, and student work/art.	Media and technology facilities provide an aesthetically pleasing environment with a variety of attractive decorations and displays and student work/art.	Media and technology facilities provide an aesthetically pleasing environment with some decorations and displays.	Media and technology facilities do not provide an aesthetically pleasing environment.
ADEQUATE FACILITY SPACE	Media and technology facility spaces meet 90% or more of the square footage recommendations in the *IMPACT Guidelines*.	Media and technology facility spaces meet 75% -89% of the square footage recommendations in the *IMPACT Guidelines*.	Media and technology facility spaces meet 50% - 74% of the square footage recommendations in the *IMPACT Guidelines*.	Media and technology facility spaces meet less than 50% of the square footage recommendations in the *IMPACT Guidelines*.
APPROPRIATE FURNISHINGS AND EQUIPMENT	90% or more of the media and technology furnishings and equipment meet *IMPACT Guidelines*.	75% -89% of the media and technology furnishings and equipment meet the *IMPACT Guidelines*.	50% - 74% of the media and technology furnishings and equipment meet the *IMPACT Guidelines*.	Less than 50% of the media and technology furnishings and equipment meet the *IMPACT Guidelines*.
PLANNING FOR NEW AND RENOVATED FACILITIES	Opportunities are provided for media and technology staff to play an ongoing and active role throughout the planning and construction of new, renovated, or repurposed facilities.	Opportunities are provided for media and technology staff to offer advice on a regular basis for the planning of new, renovated, or repurposed facilities.	Opportunities are provided for media and technology staff to make initial suggestions during the planning of new, renovated, or repurposed facilities.	Opportunities are not provided for media and technology staff to participate in the planning of new, renovated, or epurposed facilities.
TECHNOLOGY INFRASTRUCTURE/ EQUIPMENT	Technology infrastructure and equipment exceeds state technology plan standards and *IMPACT Guidelines*.	Technology infrastructure and equipment meets state technology plan standards and *IMPACT Guidelines*.	Technology infrastructure and equipment does not meet state technology plan standards but a plan has been developed to meet standards and *IMPACT Guidelines*.	Technology infrastructure and equipment does not meet state technology plan standards and a plan has not been developed to meet standards and *IMPACT Guidelines*.

PROGRAM ADMINISTRATION

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
PLANNING THE PROGRAM – Planning to support program development				
MEDIA AND TECHNOLOGY PLANNING	Short- and long-range plans are in place and continuously assessed and updated to ensure balance among all aspects of the media and technology program.	Short- and long-range plans are in place and assessed and updated at least once a year to ensure balance among all aspects of the media and technology program.	Short-range plans for the media and technology program are in place and assessed occasionally.	Only short-range plans for the media and technology program are in place and are not assessed.
MEDIA AND TECHNOLOGY ADVISORY COMMITTEE (MTAC) – Representative committee that guides media and technology program development				
MEMBERSHIP	The MTAC meets and exceeds the membership recommendations outlined in the *IMPACT Guidelines* (e.g., community member, paraprofessional representative).	The MTAC meets most of the membership recommendations outlined in the *IMPACT Guidelines.*	The MTAC meets some of the membership recommendations outlined in the *IMPACT Guidelines.*	The MTAC does not meet the membership recommendations outlined in the *IMPACT Guidelines.*
MEETING FREQUENCY	The MTAC meets at least monthly to provide support for the planning and implementation of the media and technology program.	The MTAC meets at least quarterly to provide support for the planning and implementation of the media and technology program.	The MTAC meets occasionally to provide support for the planning and mplementation of the media and technology program.	The MTAC meets only as needed to react to a specific situation or problem.
MTAC RESPONSIBILITIES FOR PLANNING	MTAC participates in developing long- and short-term plans for the media and technology program at least quarterly.	MTAC participates in developing long- and short-term plans for the media and technology program at least twice a year.	MTAC participates in developing long- and short-term plans for the media and technology program at least once a year.	MTAC does not participate in developing long- and short-term plans for the media and technology program.
MTAC RESPONSIBILITIES FOR FORMAL ADVOCACY *(See Advocacy and MTAC sections)*	MTAC participates in developing, implementing, and continuously updating a comprehensive, research-based advocacy plan for the media and technology program.	MTAC has developed and is in the beginning phase of implementing a comprehensive, research-based advocacy plan for the media and technology program.	MTAC is in the process of developing a comprehensive, research-based advocacy plan for the media and technology program.	MTAC does not participate in developing an advocacy plan for the media and technology program.

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
MEDIA AND TECHNOLOGY ADVISORY COMMITTEE (MTAC) – continued				
MTAC RESPONSIBILITIES FOR INFORMAL ADVOCACY	The MTAC informally communicates the role of the media and technology program in supporting instruction and promoting student achievement on a continuous basis.	The MTAC informally communicates the role of the media and technology program in supporting instruction and promoting student achievement at scheduled meetings and events.	The MTAC informally communicates the role of the media and technology program in supporting instruction and promoting student achievement in response to challenges that would compromise the program, e.g., budget cuts, reversion to fixed scheduling, cutting staff, etc.	The MTAC does not communicate the role of the media and technology program.
MTAC RESPONSIBILITIES FOR COLLECTION DEVELOPMENT	The MTAC provides input for an up-to-date and well-balanced media and technology collection on a continuous basis.	The MTAC provides input for an up-to-date and well-balanced media and technology collection through regularly scheduled MTAC meetings.	The MTAC provides input for an up-to-date and well-balanced media and technology collection once a year.	The MTAC does not provide input for an up-to-date and well-balanced media and technology collection.
MTAC RESPONSIBILITIES FOR BUDGET	The MTAC is actively involved in developing and advocating for a budget plan for the media and technology program that is prioritized, justified, and includes school-based and additional funding sources.	The MTAC is actively involved in developing a budget plan for the media and technology program that is prioritized, justified, and includes school-based and additional funding sources.	The MTAC is actively involved in developing a budget plan, repre-senting school-based and additional funding sources, for the media and technology program.	The MTAC is not involved in developing a budget plan for the media and technology program.
MTAC RESPONSIBILITIES FOR DE-SELECTION (WEEDING) OF THE COLLECTION	The MTAC is involved in making recommendations for removing items from the entire collection that are outdated and no longer support the curriculum.	The MTAC is involved in making recommendations for removing items from most areas of the collection that are outdated and no longer support the curriculum.	The MTAC is involved in making recommendations for removing items from some areas of the collection that are outdated and no longer support the curriculum.	The MTAC is not involved in making recommendations for removing items from the collection.

PROGRAM ADMINISTRATION

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
POLICIES AND PROCEDURES – Framework for program implementation				
POLICIES AND PROCEDURES	System-level and school-level media and technology policies and procedures based on the *IMPACT Guidelines* are followed.	System-level policies and procedures based on the *IMPACT Guidelines* are followed and school-level policies and are being developed.	System-level media and technology policies and procedures are followed.	System-level policies and procedures are not followed.
REVIEW/REVISION OF POLICIES AND PROCEDURES	All policies/procedures related to the media and technology program are reviewed and revised on a regularly scheduled basis.	Most policies/procedures related to the media and technology program are reviewed and revised on a regularly scheduled basis.	Some policies/procedures related to the media and technology program are reviewed and revised on a regularly scheduled basis.	Policies/procedures related to the media and technology program are not reviewed and revised on a regularly scheduled basis.
COMMUNICATION OF POLICIES AND PROCEDURES - STAFF	Media and technology policies are communicated to the entire staff through meetings, documentation, and professional development.	Media and technology policies are communicated to the entire staff through meetings and documentation.	Media and technology policies are communicated to the entire school staff through documentation.	Media and technology policies are not communicated to the school staff.
COMMUNICATION OF POLICIES – EDUCATION COMMUNITY	Media and technology policies are communicated to the education community through meetings and documentation on an ongoing basis.	Media and technology policies are communicated to the education community through meetings and documentation annually.	Media and technology policies are communicated to the education community through documentation annually.	Media and technology policies are not communicated to the education community.

PROGRAM ADMINISTRATION

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
HIGH QUALITY COLLECTION OF RESOURCES – Appropriate range of resources in a variety of formats to meet the needs of teachers and students				
BUDGET	An operational budget is provided for maintaining all resources that includes Total Cost of Ownership (TCO) and that meets the needs of anticipated growth.	An operational budget is provided for maintaining all resources that includes Total Cost of Ownership (TCO) and a budget plan for anticipated growth is in development.	An operational budget is provided for maintaining all resources that includes Total Cost of Ownership (TCO).	An operational budget is not provided for maintaining resources.
HIGH QUALITY COLLECTION	A high quality and well-balanced collection of current resources is provided that aligns to the curriculum and that supports teaching and learning.	Most areas of the collection represent high quality, current resources that align to the curriculum and support teaching and learning.	Some areas of the collection represent current resources that align to the curriculum and support teaching and learning.	The collection of resources is not current and does not support the curriculum.
DIVERSE COLLECTION	A collection of resources is provided that meets the needs of learners with diverse learning styles, cultural backgrounds, and physical challenges.	A collection of resources is provided.that meets the needs of most learners with diverse learning styles, cultural backgrounds, and physical challenges.	A collection of resources is provided.that meets the needs of some learners with diverse learning styles, cultural backgrounds, and physical challenges.	A collection of resources is not provided.that meets the needs of learners with diverse learning styles, cultural backgrounds, and physical challenges.
COLLECTION DEVELOPMENT PLAN	The MTAC provides input for the long-range (3-5 year) collection development plan for an up-to-date and well-balanced media and technology collection that is revised annually.	A long-range (3-5 year) collection development plan for an up-to-date and well-balanced media and technology collection is in place and revised annually.	A long-range (3-5 year) collection development plan for an up-to-date and well-balanced media and technology collection is in place.	A long-range (3-5 year) collection development plan for an up-to-date and well-balanced media and technology collection is not in place.
INVENTORY	Annual inventories of media and technology resources are conducted and shared with the MTAC to determine needs for additional resources.	Annual inventories of media and technology resources are conducted and used to determine needs for additional resources.	Annual inventories of media and technology resources are conducted.	Annual inventories of media and technology resources are not conducted.

PROGRAM ADMINISTRATION

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
EVALUATION – Documentation demonstrating the effectiveness of the media and technology program				
PROGRAM EVALUATION	Working with the MTAC, qualitative and quantitative measures are used to document and evaluate how media and technology resources and program initiatives meet the needs of students and staff.	Qualitative and quantitative measures are used to document and evaluate how media and technology resources and program initiatives meet the needs of students and staff.	Quantitative measures are used to document and evaluate how media and technology resources and program initiatives meet the needs of students and staff.	Data is not used to evaluate how media and technology resources and program initiatives meet the needs of students and staff.
STAFFING – Personnel resources needed to support the media and technology program				
ADEQUATE STAFFING *(See Personnel Chart below**)*	Media and technology programs are fully staffed as recommended.**	Media and technology programs are in the process of fully staffing media and technology programs as recommended.**	Plans are in place with an implementation timeline to fully staff media and technology programs as recommended.**	Media and technology programs are not fully staffed as recommended.**

PROGRAM ADMINISTRATION PERSONNEL CHART**

ADM	Recommended minimum staffing for each school based on average daily membership (ADM)	
1-500	▪ 1 full-time library media coordinator ▪ 1 full-time technology facilitator	▪ 1/2 media assistant ▪ 1/2 technology assistant
501-1000	▪ 1 full-time library media coordinator ▪ 1 full-time technology facilitator	▪ 1 full-time media assistant ▪ 1 full-time technology assistant.
1001-1500	▪ 2 full-time library media coordinators ▪ 2 full-time technology facilitators	▪ 1 1/2 media assistants ▪ 1 1/2 full-time technology assistants
1501-2000	▪ 2 full-time library media coordinators. ▪ 2 full-time technology facilitators	▪ 2 full-time media assistants ▪ 2 full-time technology assistants

SYSTEM-LEVEL LEADERSHIP AND SUPPORT EVALUATION RUBRICS

NOTE: **"Most"** represents more than half and **"some"** represents less than half.
Terms designated with an asterisk* are defined at the end of the document.

TEACHING AND LEARNING (SYSTEM-LEVEL)

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
CURRICULUM INVOLVEMENT – Ensuring the integration of information and computer/technology skills				
PROMOTING BEST PRACTICE	Leadership continuously promotes a collaborative environment that incorporates **best practices*** for instruction, provides up-to-date resources, and shares information with others outside of the school system.	Leadership continuously promotes a collaborative environment that incorporates **best practices*** for instruction and provides up-to-date resources.	Leadership promotes a collaborative environment that incorporates **best practices*** for instruction.	Leadership does not promote a collaborative environment that incorporates **best practices*** for instruction.
INTEGRATION OF MEDIA AND TECHNOLOGY	Leadership supports curriculum integration of information and computer/technology skills across all curriculum areas and grade levels.	Leadership supports curriculum integration of information and computer/technology skills across most curriculum areas and grade levels.	Leadership supports curriculum integration of information and computer/technology skills across **core curriculum areas*** and some grade levels.	Leadership does not support curriculum integration of information and computer/technology skills across subject areas and grade levels.
COLLABORATION – Strengthening media and technology programs by working with a variety of individuals and organizations				
COLLABORATION BETWEEN LEVELS	Leadership continuously promotes communication and collaboration between system-level curriculum/program directors and school-based administrators.	Leadership frequently promotes communication and collaboration between system-level curriculum/program directors and school-based administrators.	Leadership occasionally promotes communication between system-level curriculum/program directors and school-based administrators.	Leadership does not promote communication between system-level curriculum/program directors and school-based administrators.
COLLABORATION WITH COMMUNITY RESOURCES	Partnerships are continuously developed with business, civic, and community groups to provide resources for instruction and to implement collaborative initiatives in schools (e.g., volunteer speakers and tutors; field trip opportunities).	Partnerships are developed occasionally with business, civic, and community groups to provide resources for instruction (e.g., volunteer speakers and tutors; field trip opportunities).	A plan is being developed to work with business, civic, and community groups to give these organizations opportunities to provide resources for instruction.	No efforts are made to work with business, civic, and community groups.

TEACHING AND LEARNING (SYSTEM-LEVEL)

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
PROFESSIONAL DEVELOPMENT – Appropriate professional development provided for individual growth				
PROFESSIONAL DEVELOPMENT	All professional development for teachers related to the media and technology program is included in the system-wide professional development plan.	Most professional development for teachers related to the media and technology program is included in the system-wide professional development plan.	Some professional development for teachers related to the media and technology program is included in the system-wide professional development plan.	Professional development for teachers related to the media and technology program is not included in the system-wide professional development plan.

INFORMATION ACCESS AND DELIVERY (SYSTEM-LEVEL)

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
INFRASTRUCTURE AND CONNECTIVITY – Ensuring equity of access to resources				
STANDARDIZATION OF TECHNOLOGY RESOURCES	System-wide guidelines for the standardization of all technology resources are in place	System-wide guidelines for the standardization of most technology resources are in place.	System-wide guidelines for the standardization of some technology resources are in place.	System-wide guidelines for the standardization of technology resources are not in place.
TECHNOLOGY INFRASTRUCTURE, EQUIPMENT, AND CONNECTIVITY	System-wide technology infrastructure, equipment, and connectivity exceeds state technology plan standards and *IMPACT Guidelines.*	System-wide technology infrastructure, equipment, and connectivity meets state technology plan standards and *IMPACT Guidelines.*	A plan has been developed for system-wide technology infrastructure, equipment, and connectivity that meets state technology plan standards and *IMPACT Guidelines.*	A plan has not been developed for system-wide technology infrastructure, equipment, and connectivity that meets state technology plan standards and *IMPACT Guidelines.*
EQUITY OF ACCESS (assistive/adaptive)	Equitable access to resources and facilities that meet requirements of federal ADA and special education laws is provided for all schools with identified students and others with special needs.	Equitable access to resources and facilities that meet minimum requirements of federal ADA and special education laws is provided for some schools with identified students and others with special needs.	Equitable access to resources that meet minimum requirements of federal ADA and special education laws is provided only for schools with identified students.	Equitable access to resources and facilities is not provided for all students.

INFORMATION ACCESS AND DELIVERY (SYSTEM-LEVEL)

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
NEW AND RENOVATED FACILITIES – Ensuring adequate facilities for system-wide media and technology programs				
PLANNING AND CONSTRUCTION OF NEW AND RENOVATED FACILITIES	System-level media and technology personnel play an active and ongoing role throughout the planning and construction of new, renovated, or repurposed facilities, in collaboration with building-level personnel.	System-level media and technology personnel offer advice on a regular basis for the planning of new, renovated, or repurposed facilities.	System-level media and technology personnel make initial suggestions during the planning of new, renovated, or repurposed facilities.	System-level media and technology personnel do not participate in the planning of new, renovated, or repurposed facilities.

PROGRAM ADMINISTRATION (SYSTEM-LEVEL)

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
ADVOCACY – Leadership promotes system-wide media and technology programs				
FORMAL ADVOCACY	A comprehensive, research-based advocacy plan for the role of media and technology programs in supporting instruction and promoting student achievement is implemented and updated.	A comprehensive, research-based advocacy plan for the role of media and technology programs in supporting instruction and promoting student achievement has been developed and is in the beginning phase of implementation.	A comprehensive, research-based advocacy plan for the role of media and technology programs in supporting instruction and promoting student achievement is in the process of being developed.	A comprehensive, research-based advocacy plan for the role of media and technology programs in supporting instruction and promoting student achievement has not been developed.
INFORMAL ADVOCACY	The role of media and technology programs in supporting instruction and promoting student achievement is communicated continuously throughout the community.	The role of media and technology programs in supporting instruction and promoting student achievement is communicated at scheduled meetings and events.	The role of media and technology programs in supporting instruction and promoting student achievement is communicated in response to challenges that would compromise the program.	The role of media and technology programs in supporting instruction and promoting student achievement is not communicated.

PROGRAM ADMINISTRATION (SYSTEM-LEVEL)

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
POLICIES AND PROCEDURES – Leadership provides framework for system-wide media and technology program implementation				
DEVELOPMENT OF POLICIES AND PROCEDURES	All system-level policies/procedures related to the media and technology program are based on the *IMPACT Guidelines* and all are aligned with state and federal laws and regulations.	Most system-level policies/procedures related to the media and technology program are based on the *IMPACT Guidelines* and all are aligned with state and federal laws and regulations.	Some system-level policies/procedures related to the media and technology program are based on the *IMPACT Guidelines* and all are aligned with state and federal laws and regulations.	Policies/procedures related to the media and technology program are not aligned with state and federal laws and regulations or *IMPACT Guidelines.*
REVIEW/REVISION OF POLICIES AND PROCEDURES	Review and revision of all policies/procedures related to the media and technology program are conducted on a regularly scheduled basis.	Review and revision of most policies/ procedures related to the media and technology program are conducted on a regularly scheduled basis.	Review and revision of some policies/ procedures related to the media and technology program are conducted on a regularly scheduled basis.	Review and revision of policies/procedures related to the media and technology program are not conducted.
COMMUNICATION OF POLICIES AND PROCEDURES	All media and technology policies and procedures are communicated consistently throughout the school system annually.	Most media and technology policies and procedures are communicated throughout the school system annually.	Some media and technology policies and procedures are communicated throughout the school system annually.	Media and technology policies and procedures are not communicated throughout the school system annually.

PROGRAM ADMINISTRATION (SYSTEM-LEVEL)

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
PLANNING - Planning to support program development				
TECHNOLOGY PLAN	A system-level technology plan is in place and assessed as required by state legislation and *IMPACT Guidelines* and monitored at scheduled intervals to assure forward progress.	A system-level technology plan is in place and assessed as required by state legislation and *IMPACT Guidelines* and monitored occasionally to assure forward progress.	A system-level technology plan is in place and assessed as required by state legislation and *IMPACT Guidelines*.	A system-level technology plan is not in place.
PLANNING FOR TECHNOLOGY	The system-level technology plan is developed with input from representatives of all stakeholder groups: administrators, teachers, technology facilitators, media coordinators, parents/community members, and students.	The system-level technology plan is developed with input from representatives of most stakeholder groups: administrators, teachers, technology facilitators, media coordinators, parents/community members, and students.	The system-level technology plan is developed with input from representatives of some stakeholder groups: administrators, teachers, technology facilitators, media coordinators, parents/community members, and students.	The system-level technology plan is developed without input from stakeholders.
COLLECTION DEVELOPMENT	Building-level collection development plans (created with input from the MTAC) for up-to-date and well-balanced media and technology collections are in place for all schools and revised annually.	Building-level collection development plans for up-to-date and well-balanced media and technology collections are in place for all schools and revised annually.	Building-level collection development plans for up-to-date and well-balanced media and technology collections are in place for all schools.	Building-level collection development plans for up-to-date and well-balanced media and technology collections are not in place for all schools.

PROGRAM ADMINISTRATION (SYSTEM-LEVEL)

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
BUDGET – Leadership for the provision of adequate funding to support system-wide media and technology programs				
BUDGET	Every school has an operational budget for maintaining all media and technology resources that includes Total Cost of Ownership (TCO), and a budget plan for anticipated growth.	Every school has an operational budget for maintaining all media and technology resources that includes Total Cost of Ownership (TCO), and a budget plan for anticipated growth that is in development.	Every school has an operational budget for maintaining all media and technology resources that includes Total Cost of Ownership (TCO).	Schools do not have an operational budget for maintaining all media and technology resources.
ADDITIONAL FUNDING SOURCES	Every school is continuously made aware of additional media and technology funding sources, and support is offered and provided throughout the application process.	Every school is frequently made aware of additional media and technology funding sources and has the support needed to apply for these funds when requested.	Every school is made aware of additional media and technology funding.	Schools are not made aware of additional media and technology funding sources.
PROGRAM EVALUATION – Leadership and vision for evaluating the effectiveness of system-wide media and technology programs				
DATA COLLECTION	System-wide data from quantitative and qualitative measures related to media and technology programs is aggregated, analyzed, and disseminated to system-level administrators, curriculum staff, school board, and community members when appropriate.	System-wide data from quantitative and qualitative measures related to media and technology programs is aggregated and analyzed.	System-wide data from quantitative and qualitative measures related to media and technology programs is aggregated.	System-wide quantitative data related to media and technology programs is aggregated.
USING DATA FOR RECOMMEN-DATIONS	System-level staff and building-level media and technology representatives team with teachers to use analyzed quantitative and qualitative data to make recommendations for media and technology programs system-wide.	System-level staff and building-level media and technology representatives use analyzed quantitative and qualitative data to make recommendations for media and technology programs system-wide.	System-level staff use analyzed quantitative and qualitative evaluation data when making recommendations for media and technology programs system-wide.	Data is not used when making recommendations for media and technology programs system-wide.

PROGRAM ADMINISTRATION (SYSTEM-LEVEL)

	OUTSTANDING	DEVELOPING	MINIMUM	BELOW MINIMUM
STAFFING – Personnel resources needed to support system-wide media and technology programs				
ADEQUATE STAFFING *(See System-Level Personnel Chart below**)*	All system-level media and technology personnel are in place as recommended in the System-Level Personnel Chart.**	Most of the system-level personnel r ecommended in the System-Level Personnel Chart** are in place, and a timeline exists for full staffing.	Plans are in place for providing system-level media and technology personnel as recommended in the System-Level Personnel Chart.**	System-level media and technology staff are not in place staffed as recommended the System-Level Personnel Chart.**

SYSTEM-LEVEL PERSONNEL CHART**

# SCHOOLS IN SYSTEM	RECOMMENDED STAFFING:
1-5	▪ 1 Director/Coordinator for both media and technology, with other system-level duties.
6-15	▪ 1 Director/Coordinator for both media and technology, with "lead teachers" for each school level that have only part-time teaching responsibilities.
16-50	▪ 1 Director/Coordinator for school library media programs. ▪ 1 Director/Coordinator for technology programs.
50+	▪ 1 Director/Coordinator for media/technology at the Associate Superintendent's level. ▪ 1 School Library Media Programs Supervisor ▪ 1 Instructional Technology Supervisor

MEDIA AND TECHNOLOGY PROGRAM EVALUATION RUBRICS
SYSTEM-LEVEL LEADERSHIP AND SUPPORT EVALUATION RUBRICS

*DEFINITION OF TERMS:

BEST PRACTICES
Instructional strategies based on scientific research proven to promote student achievement.

CORE CURRICULUM AREAS
Math, English Language Arts, Science, Social Studies

CO-TEACHING
Instructional practice wherein educators implement collaboratively planned instructional activities side-by-side in the same physical location or by implementing instruction with groups of students who rotate among the various educators in different locations within the school.

DIFFERENTIATED INSTRUCTION
Design of instruction to meet the abilities and learning needs of individual students.

INSTRUCTIONAL FEEDBACK
Authentic assessment, such as rubrics, checklists, or conferencing, designed to determine that learning outcomes have been met.

LEARNING STYLES
Differences in how students perceive and process information <http://www.ldpride.net/learning_style.html>.

LITERACIES FOR THE DIGITAL AGE
Learning skills identified by the Partnership for 21st Century Skills that incorporate information and communication skills, thinking and problem-solving skills, and interpersonal and self-directional skills <www.21stcenturyskills.org>.

SYSTEMATIC RESEARCH PROCESS
Information problem solving strategy that begins with identifying the essential question or problem, e.g., The Big6. Adoption of a systematic research model is recommended to ensure that all students and teachers understand and use the same framework and terminology.
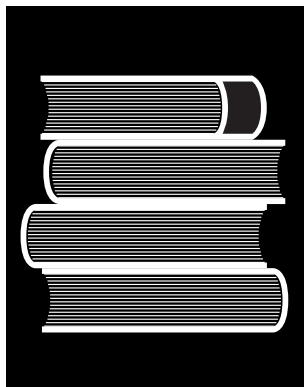
WORKS CITED

Anderson, Ronald and Henry Becker. *School Investments in Instructional Technology.* Irvine, CA, and Minneapolis, MN: Center for Research on Information Technology and Organizations, University of California, Irvine, and University of Minnesota, 2001. 20 May 2005 <http://www.crito.uci.edu/tlc/findings/report_8/startpage.htm>.

Bradburn, Frances Bryant. *Output Measures for School Library Media Programs.* New York: Neal-Schuman, 1999.

"Collaboration Led by Local Evaluators: A Practical, Print- and Web-Based Guide." neirtec_evalguide.pdf. Northeast and the Islands Regional Technology in Education Consortium. 24 Jun. 2005 <http://www.neirtec.org/products/evaluation_guide/neirtec_evalguide.pdf.>

"Computer-Based Technology and Learning: Evolving Uses and Expectations." NCREL, 1999. 4 Aug. 2000 <http://www.ncrel.org/tplan/cbtl/toc.htm>.

Daniels, Anthony. "Composition Instruction: Using Technology to Motivate Students to Write." *Information Technology in Childhood Education* 2004: 157-74.

"enGauge®: A Framework for Effective Technology Use." enGauge. 1 Dec 2000. North Central Educational Laboratory. 24 Jun. 2005 <http://www.ncrel.org/engauge/>.

Fouts, Jeffrey. "Research on Computers and Education: Past, Present, and Future." A report to the Bill and Melinda Gates Foundation. Seattle: Seattle Pacific University, 2000.

Grover J. (Russ) Whitehurst, "Evidence-Based Education." *Student Achievement and School Accountability Conference.* October, 2002.

Lance, Keith Curry, Lynda Welborn and Christine Hamilton-Pennell. *The Impact of School Library Media Centers on Academic Achievement.* Castle Rock, CO: Hi Willow Research and Publishing, 1993.

Lance, Keith Curry, et al. *Information Empowered: The School Librarian as an Agent of Academic Achievement in Alaska Schools.* Juneau, AK: Alaska State Library, 1999.

Lance, Keith Curry, Marcia J. Rodney, and Christine Hamilton-Pennell. "Measuring Up To Standards: The Impact of School Library Programs & Information Literacy in Pennsylvania Schools." Greensburg, PA: *Pennsylvania Citizens for Better Libraries* 2000. 20 May 2005 <http://www.statelibrary.state.pa.us/libraries/lib/libraries/measuringup.pdf>.

Lance, Keith Curry, Marcia J. Rodney, and Christine Hamilton-Pennell. "How School Libraries Improve Outcomes for Children: The New Mexico Study." Santa Fe, New Mexico: *New Mexico State Library,* 2002. 20 May 2005 <http://www.stlib.state.nm.us/files/NMStudyforDistribution.pdf >.

Norris, Cathie and Elliot Soloway. "Handhelds Impact K-12: The Technology Perspective. *Leadership* 3 (2003): 57-70.

Ralph, John. *Education Counts: An Indicator System to Monitor the Nation's Educational Health. Final report of the Special Study Panel on Education Indicators for the National Center for Education Statistics.* Washington: GPO, 1991.

Rodney, Marcia, Keith Curry Lance, and Christine Hamilton-Pennell. "The Impact of Michigan School Librarians on Academic Achievement: Kids Who Have Libraries Succeed." Lansing, Michigan: *Library of Michigan,* 2003 20 May 2005 <http://www.michigan.gov/documents/hal_lm_schllibstudy03_76626_7.pdf>.

Smita, Guha and Jacqueline Leonard. "Motivation in Elementary Mathematics: How Students and Teachers Benefit from Computers." *TechTrends* 46, 1. (2002): 40-3.

Technology in Schools: Suggestions, Tools and Guidelines for Assessing Technology in Elementary Education. National Center for Education Statistics. 24 Jun. 2005 <http://nces.ed.gov/pubs2003/tech_schools/>.

Todd, Ross. "Student Learning through Ohio School Libraries: A Summary of the Ohio Research Study." Presented to the Ohio Educational Library Media Association, December 15, 2003. 23 May 2005 <http://www.oelma.org/studentlearning.htm>.

"User-Friendly Handbook for Mixed Method Evaluations." *Mixed-Method Evaluations-Start.* Aug 1997. National Science Foundation. 24 Jun. 2005 <http://www.ehr.nsf.gov/EHR/REC/pubs/NSF97-153/start.htm>.

Van der Ploeg, Arie. Speech. *Evaluating Technology in Education Conference.* Atlanta, GA: 23 Jun. 2000.

"What Works Clearinghouse Review Process." United States Department of Education. 17 May 2005 <http://http://wc.org/reviewprocess/standards.html>.

Whelan, Debra. "13,000 Kids Can't Be Wrong." *School Library Journal.* 50.2 (2004): 46-50.

Wright, Paul, Sandra Horn and William Sanders. "Teacher and Classroom Context Effects on Student Achievement: Implications for Teacher Evaluation." *Journal of Personnel Evaluation in Education,* 11 (1997): 57 – 67.
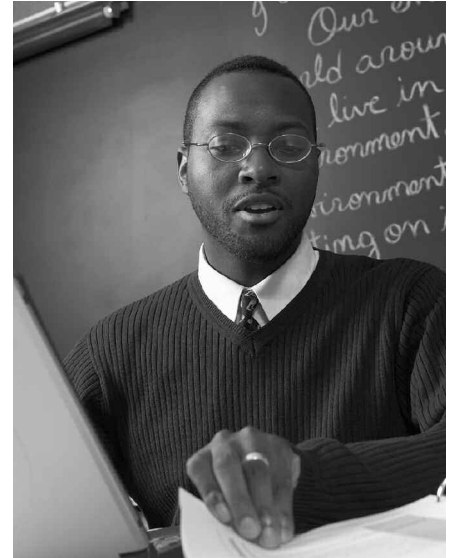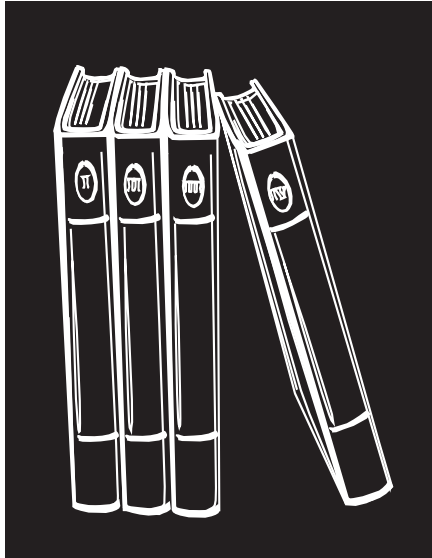
PERSONNEL

SCHOOL LIBRARY MEDIA COORDINATOR (076) JOB DESCRIPTION

In North Carolina, the school's library media coordinator may be identified by a variety of titles, such as librarian, library teacher, or media specialist. The official title for certification purposes is school library media coordinator, and this position is considered a teaching certification.

CERTIFICATION: Approved program requirements that must be met to qualify for K-12 School Library Media Coordinator certification are at the master's degree level and were adopted by the State Board of Education in 1987.

SCHOOL LIBRARY MEDIA JOB DESCRIPTION

REPORTS TO: Principal and Media Supervisor

SUPERVISES: Coordinates and directs the activities of school library media support personnel including library media assistants, technical assistants, student assistants, and/or volunteers.

PURPOSE: To provide the leadership and instructional resources and services for implementation of a school library media program that serves as an integral part of a student-centered educational process

DUTIES AND RESPONSIBILITIES

1. MAJOR FUNCTION: Planning and Implementing for Teaching and Learning

   1.1   Assesses learning and information needs of students and staff

   1.2   Plans and works collaboratively with teachers to use appropriate resources that address curricular needs and learning goals

   1.3   Works with the principal and school leadership team to provide flexible access to the instructional services of the school library media coordinator

   1.4   Instructs students and staff in the effective use of the media center and its resources

   1.5   Incorporates information literacy into day-to-day instruction

   1.6   Advocates and promotes reading and life-long learning through motivational activities

   1.7   Collaborates with the Technology Facilitator to provide leadership in the school's use of instructional technology resources to enhance learning

   1.8   Follows a plan for personal professional development and actively seeks out opportunities to grow professionally

2. MAJOR FUNCTION: Planning and Implementing for Information Access, Evaluation, and Use

   2.1   Creates and maintains an environment conducive to learning

   2.2   Works with the principal and school leadership team to provide flexible access to school library media center resources to accommodate individuals and groups simultaneously

   2.3   Organizes school library media facilities and resources in a manner that supports the mission, goals, and objectives of the school and maximizes intellectual and physical access to resources

   2.4   Encourages the widest possible use of print and electronic resources and services--within the school library media center, throughout the school, and through remote access

   2.5   Works cooperatively with other libraries and agencies to share resources that enhance teaching and learning

   2.6   Adheres to and communicates copyright as well as other laws and guidelines pertaining to the distribution and ethical use of all resources

   2.7   Advocates the principles of intellectual freedom

3. MAJOR FUNCTION: Planning and Implementing for Program Administration

3.1 Works with school staff to design and implement short- and long-range plans that ensure balance among all aspects of the school library media coordinator's role and responsibilities

3.2 Develops and implements an ongoing collection development and evaluation planning process, in collaboration with the Media and Technology Advisory Committee, that focuses on a variety of formats and resources to meet diverse learning needs

3.3 Evaluates and selects resources that build a collection addressing curricular needs and learning goals in collaboration with teachers, technology staff, and students

3.4 Maintains a collection addressing curricular needs and learning goals

3.5 Evaluates the school library media program on a continual basis according to accepted standards of quality

3.6 Plays a leading role in the school's budgetary process to ensure funding for the school library media program to support school-wide goals

3.7 Leads, in partnership with the Technology Facilitator, the Media and Technology Advisory Committee in effective decision making to promote the media and technology program

3.8 Interacts effectively with students, staff, administration, parents, and the community to promote and expand the school library media program

3.9 Prepares and submits accurate reports as required

3.10 Adheres to established laws, policies, rules, and regulations

3.11 Carries out non-instructional duties as assigned and/or as need is perceived

MEDIA ASSISTANT JOB DESCRIPTION

NATURE OF WORK

An employee in this class performs routine tasks in the areas of materials and hardware acquisition, file and records management, and circulation. Clerical responsibilities include tasks related to ordering, receipt, maintenance, inventory, and production of instructional materials. The employee also provides ongoing support to teachers and students (K-12) using resources in the school library media center. When working directly with users, the media assistant must be able to respond effectively to their needs.

The employee provides hardware and software support to users of computer workstations in the school library media center. Tasks include minor troubleshooting problems such as logging on to computer systems or software, printing malfunctions, or routine error messages. In some cases, the employee will research appropriate manuals to find answers. If standard techniques do not resolve the situation, the employee will seek assistance from the appropriate technical professional.

The employee may assist in the development of instructional materials and make purchase recommendations. The media assistant carries out all tasks under the direction of the professional members of the school library media staff, reporting, as appropriate, to designated professionals and administrators.

ILLUSTRATIVE EXAMPLES OF WORK

CLERICAL RESPONSIBILITIES

- Assume general clerical responsibilities
- Compile statistics
- Order and process print and non-print materials
- Maintain inventory of and order supplies
- Circulate print and non-print materials
- Perform other clerical duties as assigned

TECHNICAL RESPONSIBILITIES

- Maintain the online catalog
- Perform preventive maintenance and minor repairs on equipment
- Maintain the school library media center collection
- Provide timely resolution of computer problems by providing assistance or referral
- Perform other technical support responsibilities as assigned

INSTRUCTIONAL SUPPORT RESPONSIBILITIES

- Assist students and staff with location and use of materials and equipment
- Prepare displays
- Schedule use of and deliver materials and equipment
- Assist with the preparation of instructional materials
- Assist with the preparation of bibliographies and pathfinders
- Perform other instructional support responsibilities as assigned

KNOWLEDGE, SKILLS AND ABILITIES

- Competency in basic clerical procedures such as filing, sorting, organizing, and shelving
- Competency in maintaining records, inventory, and accounting
- General knowledge of computers
- Competency with word processing and other basic office applications
- General knowledge of information technology devices
- General knowledge of software packages utilized in the school library media center
- Competency in online searching
- Ability to communicate with users to determine the nature of assistance needed
- Ability to establish and maintain effective working relationships
- Ability to solve independently most minor problems

SUGGESTED TRAINING AND EXPERIENCE

Graduation from high school or GED and experience in office clerical procedures and the use of computer and information technology resources. An equivalent combination of training and experience which provides the required knowledge, skills, and abilities for the position.

This specification has been designated to represent the general nature and level of work found in positions in this class.
As such, it is not intended to contain all of the duties and qualifications required of an employee in a single position (job).
Consequently, it is not to be perceived as a position (job) description or as identification of essential functions as required by ADA.

TECHNOLOGY FACILITATOR JOB DESCRIPTION

In North Carolina, the school's technology facilitator is the key instructional technology specialist for the school.

CERTIFICATION: NC Teacher Licensure + 18079 Special Endorsement in Computer Education

TECHNOLOGY FACILITATOR JOB DESCRIPTION

REPORTS TO: Principal and Technology Supervisor

SUPERVISES:

PURPOSE: This individual provides training and support to the staff on technology integration, the North Carolina Computer/ Technology Skills Curriculum, the North Carolina Technology Competencies for Educators, and administrative applications. The employee assists with identifying, acquiring, and maintaining hardware, software, and network products. This individual also assists in the implementation of the system and building-level technology plans.

DUTIES AND RESPONSIBILITIES

1. MAJOR FUNCTION: Planning and Facilitating Teaching and Learning

   - Collaborates with teachers and other instructional staff to develop curriculum materials and specific lesson plans that integrate technology
   - Models the integration of technology in all curriculum areas
   - Facilitates school participation in technology programs and activities
     Conducts staff development in the areas of technology integration, the North Carolina Computer/Technology Skills Curriculum, and the North Carolina Technology Competencies for Educators
   - Collaborates with the school library media coordinator to provide leadership in the school's use of instructional technology resources to enhance learning
   - Follows a plan for professional development and actively seeks out opportunities to grow professionally

2. MAJOR FUNCTION: Planning and Facilitating Information Access and Delivery

   - Implements best practices related to technology use in the school program based on research, pilot programs, and state/national standards
   - Works with the principal and school leadership team to provide access to technology resources and services of the technology facilitator at point of need
   - Works with teachers and technology staff in the selection of resources that are compatible with the school technology infrastructure
   - Assists with planning the design of the technology infrastructure so that information resources are continually available to the school community
   - Promotes family, business, and community partnerships that support the academic success, career readiness, and general well-being of all children
   - Adheres to and communicates copyright as well as other laws and guidelines pertaining to the distribution and ethical use of all resources
   - Assists in maintaining hardware, software, and network infrastructure
   - Serves as the school contact for addressing hardware and software issues

3. MAJOR FUNCTION: Planning and Facilitating Program Administration

- Leads, in partnership with the School Library Media Coordinator, the Media and Technology Advisory Committee in effective decision making to promote the media and technology program

- Provides leadership and collaborates with the Media and Technology Advisory Committee to develop, implement, and update a school instructional technology plan aligned with the system-level technology plan

- Collaborates with teachers, media and technology staff, and students to evaluate and select resources addressing curricular needs and learning goals

- Plays a leading role in the school's budgetary process to ensure funding for the instructional technology program to support school-wide goals

- Leads in the ongoing evaluation of the effectiveness of the instructional technology program

- Prepares and submits accurate reports as required

- Carries out non-instructional duties as assigned and/or as needed to ensure student safety

TECHNOLOGY ASSISTANT (SALARY GRADE 61) JOB DESCRIPTION

NATURE OF WORK

An employee in this class performs tasks to aid in the ongoing support of teachers and students using computers in K-3 classrooms as well as other classrooms K-12. The employee provides hardware and software support to teachers including but not limited to software training, technical advice on software packages, LAN/hard disk back-ups for disaster recovery, hardware and software installation, disk formatting, and troubleshooting printer malfunctions. The employee may assist in the development of applications for users, generate ad hoc reports, develop user documentation, and evaluate hardware, software, and new technology to make purchase recommendations. Tasks also include troubleshooting problems such as logging on to computer systems or software, printing malfunctions, or routine error messages. In some cases, the employee will research appropriate manuals to find answers. If standard techniques do not resolve the situation, the employee will seek assistance from the appropriate technical professional.

ILLUSTRATIVE EXAMPLES OF WORK

- Ensure teachers know how to use available software and hardware
- Ensure equipment is working properly
- Perform disk backups as required
- Train users for full utilization of hardware and software
- Provide timely resolution of computer problems by providing answers or referral
- Install new software
- Develop applications for users
- Evaluate hardware and software and make purchase recommendations

KNOWLEDGE, SKILLS AND ABILITIES

- General knowledge of computers
- General knowledge of related information technology devices
- General knowledge of software packages utilized
- Ability to communicate with users to determine the nature of problems
- Ability to communicate effectively with users who may not be adept in clarifying problem situations
- Ability to assist users with applications development
- Ability to train teachers in the use of hardware and software
- Ability to establish and maintain effective working relationships
- Ability to comprehend the purpose of teacher designed strategies as a fulfillment of the instructional objectives
- Ability to solve independently most minor problems

SUGGESTED TRAINING AND EXPERIENCE

Graduation from high school and three years of experience in the use of computing and information technology resources. Specific knowledge of the particular software or systems supported may be required. An equivalent combination of training and experience which provides the required knowledge, skills, and abilities for the position.

This specification has been designated to represent the general nature and level of work found in positions in this class.
As such, it is not intended to contain all of the duties and qualifications required of an employee in a single position (job).
Consequently, it is not to be perceived as a position (job) description or as identification of essential functions as required by ADA.

TECHNOLOGY TECHNICIAN I (SALARY GRADE 64) JOB DESCRIPTION

NATURE OF WORK

The Technology Technician I performs skilled repair and maintenance of all technology- related equipment as well as technical support for all technology-related systems. Employee provides technical support to users including, but not limited to, technical advice on equipment setup and operation, general troubleshooting, and software installation. Employee typically works in a centralized microcomputer environment; however, positions may be located in other environments. Employee reads and interprets schematics, wiring diagrams, and repair manuals to provide required technical support.

ILLUSTRATIVE EXAMPLES OF WORK

- Repairs, maintains, and upgrades technology-related equipment
- Reads and interprets schematics, wiring diagrams, and manuals
- Operates standard and specialized electronics devices in testing and troubleshooting computers and other technology-related equipment
- Maintains an inventory of electronics components needed to make timely repairs
- Uses a work-order tracking system for routine repair and maintenance of equipment. Refers complex problems to higher level technical support

KNOWLEDGE, SKILLS AND ABILITIES

- Basic knowledge of electronic principles and fundamentals of physics as applied in electronics
- General knowledge of computers and related technology devices
- General knowledge of electronics devices
- Familiarity with the operation and uses of standard test equipment
- Basic knowledge of mathematical principles as applied in electronic circuit analysis
- Ability to systematically troubleshoot standard electronics devices
- Ability to communicate effectively with users

SUGGESTED TRAINING AND EXPERIENCE

Graduation from a two-year college or technical school and one year experience; or equivalent combination of training and experience.

This specification has been designated to represent the general nature and level of work found in positions in this class.
As such, it is not intended to contain all of the duties and qualifications required of an employee in a single position (job).
Consequently, it is not to be perceived as a position (job) description or as identification of essential functions as required by ADA.

TECHNOLOGY TECHNICIAN II (SALARY GRADE 68) JOB DESCRIPTION

NATURE OF WORK

The Technology Technician II supports and maintains both administrative and instructional computers, software, and networks. This work includes repair of all technology-related equipment. Employee provides on-site assistance in classrooms, media centers, computer labs, and administrative offices. Employee identifies problems and takes appropriate corrective action. Employee installs and upgrades all technology-related equipment in network and stand-alone environments. Typically, this employee will provide first response support from the system level for the maintenance and operation of computers, software, and networks at the building level. Employee may have multiple sites to maintain. Complex problems are referred to Technician III or Network Engineer positions. This position is distinguished from the Technician I by its emphasis on building-level support and more specialized knowledge of computer hardware, software, and computer networks.

ILLUSTRATIVE EXAMPLES OF WORK

- Under the supervision of the Technician III or Network Engineer, assists with the installation of hardware, software, and related peripherals
- Ensures the maintenance of all computers, software, an local area networks by monitoring performance
- Installs upgrades to hardware and software
- Makes recommendations to building-level staff regarding upgrades and replacement of technology-related equipment
- Reads and interprets schematics, wiring diagrams, and manuals
- Operates standard and specialized electronics devices in testing and troubleshooting computers and other technology-related equipment
- Attends classes and seminars to enhance knowledge of equipment and operating systems

KNOWLEDGE, SKILLS AND ABILITIES

- Strong knowledge of computers and related technologies
- General knowledge of components of local area networks
- Understanding of mechanical, electronic, and computer principles as applied to the repair and maintenance of computers and peripherals
- Ability to communicate effectively with all levels of technology users
- Ability to establish and maintain effective working relationships

SUGGESTED TRAINING AND EXPERIENCE

Graduation from a two-year college or technical school with a degree in a related field and eighteen months experience; or equivalent combination of education and experience. Experience in computer and peripheral troubleshooting.

This specification has been designated to represent the general nature and level of work found in positions in this class.
As such, it is not intended to contain all of the duties and qualifications required of an employee in a single position (job).
Consequently, it is not to be perceived as a position (job) description or as identification of essential functions as required by ADA.

TECHNOLOGY TECHNICIAN III (SALARY GRADE 72) JOB DESCRIPTION

NATURE OF WORK

The Technology Technician III works as the senior or lead technician at the system level. This employee performs skilled, supervisory, and managerial work in directing the activities of Levels I and II Technology Technician. This work includes repair and maintenance of all technology-related equipment as well as technical support for all technology-related systems. This employee is responsible for maintaining the operation and integrity of local area networks, file servers, and workstations. Through scheduling and assigning technical support staff work tasks, the Technology Technician III supports the Director of Technology and Network Engineer in the design, configuration, and installation of local area networks and file servers.

ILLUSTRATIVE EXAMPLES OF WORK

- Works with the technology director and/or network engineers in the development and implementation of all technical aspects of the local technology plan
- Supervises the daily activities of the Levels I and II technical support staff
- Assigns, monitors, and evaluates all repair and maintenance work done by the technical support staff to ensure reliability of performance
- Supervise and/or perform the installation of hardware, software, and related peripherals
- Assist with the installation of local area networks, file servers, and other related peripherals under the supervision of the network engineer
- Ensure the maintenance of all local area networks by tracking significant problems, monitoring performance, and installing upgrades to hardware and software
- Develop and implement training for technical support staff
- Attend classes and seminars to enhance knowledge of equipment and operating

KNOWLEDGE, SKILLS AND ABILITIES

- Strong knowledge of computers and related technologies
- Strong knowledge of infrastructure requirements and components of local area networks
- Ability to supervise technical support staff
- Ability to communicate effectively with all levels of technology users

SUGGESTED TRAINING AND EXPERIENCE

An associate's degree in Computer Science or related field, two years' experience in a network environment, or any equivalent combination of training and experience.

This specification has been designated to represent the general nature and level of work found in positions in this class.
As such, it is not intended to contain all of the duties and qualifications required of an employee in a single position (job).
Consequently, it is not to be perceived as a position (job) description or as identification of essential functions as required by ADA.

MEDIA COORDINATOR PERFORMANCE APPRAISAL INSTRUMENT - REVISED

MEDIA COORDINATOR'S NAME: _____

SCHOOL: _____

INSTRUCTIONS

- Based on the evidence from observation, documentation, and discussion, the evaluator will rate the media coordinator's performance on the 3 major functions listed below.
- The evaluator must add pertinent comments at the end of each major function.
- The media coordinator must be provided an opportunity to react to the evaluator's ratings and comments.
- The evaluator and media coordinator must review and discuss the results of the appraisal and any recommended actions pertinent to it.
- The evaluator and media coordinator must sign the instrument in the assigned spaces.
- The instrument must be filed in the media coordinator's personnel folder.
- The rating scale's four Levels of Performance are described below.

RATING SCALE

ABOVE STANDARD

Performance is consistently above defined job expectations. The media coordinator demonstrates outstanding teaching practice and program management skills. The media coordinator seeks to provide leadership; take initiative; expand scope of competencies; and undertakes additional, appropriate responsibilities.

AT STANDARD

Performance is consistently adequate/acceptable. Teaching practices fully meet all performance expectations at an acceptable level. The media coordinator maintains an adequate scope of competencies and performs additional responsibilities as assigned.

BELOW STANDARD

Performance within this function is sometimes inadequate/unacceptable and needs improvement.
The media coordinator requires supervision and assistance to maintain an adequate scope of competencies and sometimes fails to perform additional responsibilities as assigned.

UNSATISFACTORY

Performance is consistently inadequate/unacceptable and most practices require considerable improvement to meet minimum performance expectations. The media coordinator requires close and frequent supervision in the performance of all responsibilities.

MAJOR FUNCTION: PLANNING AND FACILITATING TEACHING AND LEARNING

CHECK ONE (☑):　　☐ Above Standard　　☐ At Standard　　☐ Below Standard　　☐ Unsatisfactory

1.1　Assesses learning and information needs of students and staff

1.2　Plans and works collaboratively with teachers to use appropriate resources that address curricular needs and learning goals

1.3　Works with the principal and school leadership team to provide flexible access to the instructional services of the school library media coordinator

1.4　Instructs students and staff in the effective use of the media center and its resources

1.5　Incorporates information literacy into day-to-day instruction

1.6　Advocates and promotes reading and life-long learning through motivational activities

1.7　Collaborates with the Technology Facilitator to provide leadership in the school's use of instructional technology resources to enhance learning

1.8　Follows a plan for personal professional development and actively seeks out opportunities to grow professionally

COMMENTS: _____

_____

_____

MAJOR FUNCTION: PLANNING AND FACILITATING INFORMATION ACCESS AND DELIVERY, EVALUATION, AND USE

CHECK ONE (☑):　　☐ Above Standard　　☐ At Standard　　☐ Below Standard　　☐ Unsatisfactory

2.1　Creates and maintains an environment conducive to learning

2.2　Works with the principal and school leadership team to provide flexible access to school library media center resources to accommodate individuals and groups simultaneously

2.3　Organizes school library media facilities and resources in a manner that supports the mission, goals, and objectives of the school and maximizes intellectual and physical access to resources

2.4　Encourages the widest possible use of print and electronic resources and services--within the school library media center, throughout the school, and through remote access

2.5　Works cooperatively with other libraries and agencies to share resources that enhance teaching and learning

2.6　Adheres to and communicates copyright as well as other laws and guidelines pertaining to the distribution and ethical use of all resources

2.7　Advocates the principles of intellectual freedom

COMMENTS: _____

_____

_____

MAJOR FUNCTION: PLANNING AND FACILITATING PROGRAM ADMINISTRATION

CHECK ONE (☑):　　☐ Above Standard　　☐ At Standard　　☐ Below Standard　　☐ Unsatisfactory

3.1　Works with school staff to design and implement short- and long-range plans that ensure balance among all aspects of the school library media coordinator's role and responsibilities

3.2　Develops and implements an ongoing collection development and evaluation planning process, in collaboration with the Media and Technology Advisory Committee, that focuses on a variety of formats and resources to meet diverse learning needs

3.3　Evaluate and select resources that build a collection addressing curricular needs and learning goals in collaboration with teachers, technology staff, and students

3.4　Maintains a collection addressing curricular needs and learning goals

3.5　Evaluates the school library media program on a continual basis according to accepted standards of quality

3.6　Plays a leading role in the school's budgetary process to ensure funding for the school library media program to support school-wide goals

3.7　Leads, in partnership with the Technology Facilitator, the Media and Technology Advisory Committee in effective decision making to promote the media and technology program

3.8　Interacts effectively with students, staff, administration, parents, and the community to promote and expand the school library media program

3.9　Prepares and submits accurate reports as required

3.10　Adheres to established laws, policies, rules, and regulations

3.11　Carries out non-instructional duties as assigned and/or as need is perceived

COMMENTS: _____

_____

_____

EVALUATOR'S SUMMARY COMMENTS: _____

_____

_____

_____

MEDIA COORDINATOR'S REACTION TO EVALUATION: _____

_____

_____

_____

_____　　_____
EVALUATOR'S SIGNATURE AND DATE　　　　　　　MEDIA COORDINATOR'S SIGNATURE AND DATE
　　　　　　　　　　　　　　　　　　　　　　Signature indicates the evaluation was reviewed and discussed.

TECHNOLOGY FACILITATOR PERFORMANCE APPRAISAL INSTRUMENT

TECHNOLOGY FACILITATOR'S NAME: _____

SCHOOL: _____

INSTRUCTIONS

- Based on the evidence from observation, documentation, and discussion, the evaluator will rate the technology facilitator's performance on the 3 major functions listed below.

- The evaluator must add pertinent comments at the end of each major function.

- The technology facilitator must be provided an opportunity to react to the evaluator's ratings and comments.

- The evaluator and technology facilitator must review and discuss the results of the appraisal and any recommended actions pertinent to it.

- The evaluator and media coordinator must sign the instrument in the assigned spaces.

- The instrument must be filed in the technology facilitator's personnel folder.

- The rating scale's four Levels of Performance are described below.

RATING SCALE

ABOVE STANDARD

Performance is consistently above defined job expectations. The technology facilitator demonstrates outstanding teaching practice and program management skills. The technology facilitator seeks to provide leadership; take initiative; expand scope of competencies; and undertakes additional, appropriate responsibilities.

AT STANDARD

Performance is consistently adequate/acceptable. Teaching practices fully meet all performance expectations at an acceptable level. The technology facilitator maintains an adequate scope of competencies and performs additional responsibilities as assigned.

BELOW STANDARD

Performance within this function is sometimes inadequate/unacceptable and needs improvement. The technology facilitator requires supervision and assistance to maintain an adequate scope of competencies and sometimes fails to perform additional responsibilities as assigned.

UNSATISFACTORY

Performance is consistently inadequate/unacceptable and most practices require considerable improvement to meet minimum performance expectations. The technology facilitator requires close and frequent supervision in the performance of all responsibilities.

MAJOR FUNCTION: PLANNING AND FACILITATING TEACHING AND LEARNING

CHECK ONE (☑): ☐ Above Standard ☐ At Standard ☐ Below Standard ☐ Unsatisfactory

1.1   Collaborates with teachers and other instructional staff to develop curriculum materials and specific lesson plans that integrate technology

1.2   Models the integration of technology in all curriculum areas

1.3   Facilitates school participation in technology programs and activities

1.4   Conducts staff development in the areas of technology integration, the North Carolina Computer/ Technology Skills Curriculum, and the North Carolina Technology Competencies for Educators

1.5   Collaborates with the Media Coordinator to provide leadership in the school's use of instructional technology resources to enhance learning

1.6   Follows a plan for professional development and actively seeks out opportunities to grow professionally

COMMENTS: _____

_____

_____

MAJOR FUNCTION: PLANNING AND FACILITATING INFORMATION ACCESS AND DELIVERY

CHECK ONE (☑): ☐ Above Standard ☐ At Standard ☐ Below Standard ☐ Unsatisfactory

2.1   Implements best practices related to technology use in the school program based on research, pilot programs, and state/national standards

2.2   Works with the principal and school leadership team to provide access to technology resources and services of the technology facilitator at point of need

2.3   Works with teachers and technology staff in the selection of resources that are compatible with the school technology infrastructure

2.4   Assists with planning the design of the technology infrastructure so that information resources are continually available to the school community

2.5   Promotes family, business, and community partnerships that support the academic success, career readiness, and general well-being of all children

2.6   Adheres to and communicates copyright as well as other laws and guidelines pertaining to the distribution and ethical use of all resources

2.7   Assists in maintaining hardware, software, and network infrastructure

2.8   Serves as the school contact for addressing hardware and software issues

COMMENTS: _____

_____

_____

MAJOR FUNCTION: PLANNING AND FACILITATING PROGRAM ADMINISTRATION

CHECK ONE (☑):   ☐ Above Standard   ☐ At Standard   ☐ Below Standard   ☐ Unsatisfactory

3.1   Leads, in partnership with the Media Coordinator, the Media and Technology Advisory Committee in effective decision making to promote the media and technology program.

3.2   Provides leadership and collaborates with the Media and Technology Advisory Committee to develop, implement, and update a school instructional technology plan aligned with the system-level technology plan

3.3   Collaborates with teachers, media and technology staff, and students to evaluate and select resources addressing curricular needs and learning goals

3.4   Plays a leading role in the school's budgetary process to ensure funding for the instructional technology program to support school-wide goals

3.5   Leads in the ongoing evaluation of the effectiveness of the instructional technology program

3.6   Prepares and submits accurate reports as required

3.7   Carries out non-instructional duties as assigned and/or as needed to ensure student safety

COMMENTS: _____
_____
_____

EVALUATOR'S SUMMARY COMMENTS: _____
_____
_____
_____
_____

TECHNOLOGY FACILITATOR'S REACTION TO EVALUATION: _____
_____
_____
_____
_____

_____   _____
EVALUATOR'S SIGNATURE AND DATE   TECHNOLOGY FACILITATOR'S SIGNATURE AND DATE
                                                                              Signature indicates the evaluation was reviewed and discussed.