

## TABLE OF CONTENTS

	Page
Acknowledgments.....	2
Introduction .....	3
How to use the ITRT Handbook.....	4
ITRT Program History.....	5
ITRT Program Goal and Objectives .....	6
ITRT Program Delivery .....	8
ITRT Team Assignments & Profiles .....	9
ITRT Program Structure .....	11
Supervision & Management .....	11
Key Stakeholders .....	11
Confidentiality .....	13
Other Key Stakeholders .....	14
ITRT Performance Roles .....	15
How the ITRT works on a daily basis .....	24
Characteristics of successful ITRTs.....	24
ITRT as Instructional Liaisons (table) .....	27
ITRT Professional Development .....	27
ITRT Mentorship Program .....	28
ITRT Leadership Opportunities.....	28
Reflective Practice .....	28
Measuring ITRT Performance .....	28
Contracting.....	28
Activity Log.....	29
ITRT Accountability & Electronic Calendar .....	30
ITRT Summative Evaluation .....	30
ITRT Program Impact Evaluation Plan .....	31
Appendices.....	33
Glossary of Terms.....	42
References & Recommended Readings.....	44

## Acknowledgements & Copyright

- Data collected from the Technology Planning Committee 2007-2008
- George Mason University research conducted in Spotsylvania County Schools from 2004-2008  
Contributors: Dr. Jan Streich, Spotsylvania County Schools  
Cyndi Pixley, Spotsylvania County Schools  
Dr. Jan Streich, Stafford County TRT Pilot program and guidelines
- Overall design, planning, and publication of this handbook:  
Contributors: Dr. Jan Streich, Director of Instructional Technology, SCS  
The 2007-2008 Instructional Technology Resource Teachers, SCS  
Lead Editor: Jodi Moore, ITRT  
ITRT Editing team: Sherry Smith, Emily Horney, Mary Hefner, Brenda Conway  
Art: Katrina Negley, ITRT  
ITRT Web Design and Publication: Than Krueger, Josh Long
- Collaboration and Consultation with existing Virginia Public Schools  
Contributors: Lynn McNally, Loudoun County Public Schools, Virginia  
Dana Smith, Arlington County Public Schools, Virginia  
Sheryl Asen, Arlington County Public Schools, Virginia  
Dr. Pat Wiedel, Stafford County Public Schools  
Dr. Priscilla Norton, George Mason University, Fairfax, Virginia  
Spotsylvania County Schools Instructional Technology Resource Teachers, Virginia
- Thank you to the ITRTs, Spotsylvania County School teachers and students whose photos were used in this publication. Photo release permission obtained October, 2007.
- Reproduction in whole or in part without written permission is prohibited. However, permission is granted to reproduce portions that are to be used for instructional purposes if this handbook, school division, and contributors are properly cited and notified. Requests for permission to reprint or copy portions of this handbook should be faxed to Dr. Jan Streich, Spotsylvania County Schools at 540-834-2556 on organizational letterhead. All requests must specify the number of copies that will be made and how the material will be used. Please allow three weeks for a response.

\*Peer Review currently underway, October 2007

## Overview/Introduction

The Spotsylvania County Schools Instructional Technology Resource Teacher (SCS ITRT) framework is based on research and standards from the following K-12 educational and business fields:

- Curriculum and Instruction
- Instructional Technology
- Professional Development
- Job Coaching
- Leadership (democratic, community, and teacher leadership)

The SCS ITRT professional development delivery model reflects the standards and guidelines from:

- 21<sup>st</sup> Century Teaching and Learning practices
- International Society for Technology Education (ISTE):
  - NETs-T Standards
  - NETs-S Standards
  - NETs-A Standards National Staff Development Council (NSDC):
  - Professional Development Standards
- Virginia Staff Development Council (VSDC):
  - Job Coaching, new roles for teachers and school-based coaches
- Virginia Department of Education (DOE) Documents:
  - Virginia Standards of Learning (SOLs)
  - Educational Technology Plan for Virginia 2003-2009
  - Virginia Computer/Technology Standards
  - Virginia Guidelines for Instructional Technology Resource Teachers
- Spotsylvania County Schools (SCS) documents:
  - Spotsylvania County Schools Six-year Strategic Plan
  - Spotsylvania County Schools Technology Plan
  - Spotsylvania County Schools Improvement Plans & annual division wide initiatives
- Citations and references of supporting research and publications are located in the reference section beginning on page 44. In addition, several authors are cited in the text to assist the reader in locating the original source of the information.

## **How to use the ITRT Handbook**

This handbook serves as a guide to ITRTs and interested stakeholders in articulating the work and role of the ITRT in SCS. The framework is designed to provide an understanding of the Instructional Technology Resource Teacher (ITRT) program goals, objectives, structure, and the performance roles of the ITRTs. As the school division's only cross curricular embedded professional development team, the ITRT works as a partner to provide support to all teachers in instructional technology, practice, and data driven lesson plans. The ITRT may target specific grade levels and subject areas, and is prepared to work with any teacher who asks for support and assistance in the classroom.

Readers will benefit from learning about the program's history and how this unique professional development approach blends best practices from instruction and instructional technology. The framework reflects current research in the field of professional development, instructional technology (IT) teaching, and learning. Supporting documentation is located in the reference section of this document.



## Program History

The intention of all professional development (PD) has been to improve teaching and learning in the classroom. In the past, many PDs focused on the activity rather than how the activity would benefit the students. This is especially true of previous instructional technology (IT) professional development courses that focused on Virginia Technology Standards for Instructional Personnel (TSIPs) or technology skill development.

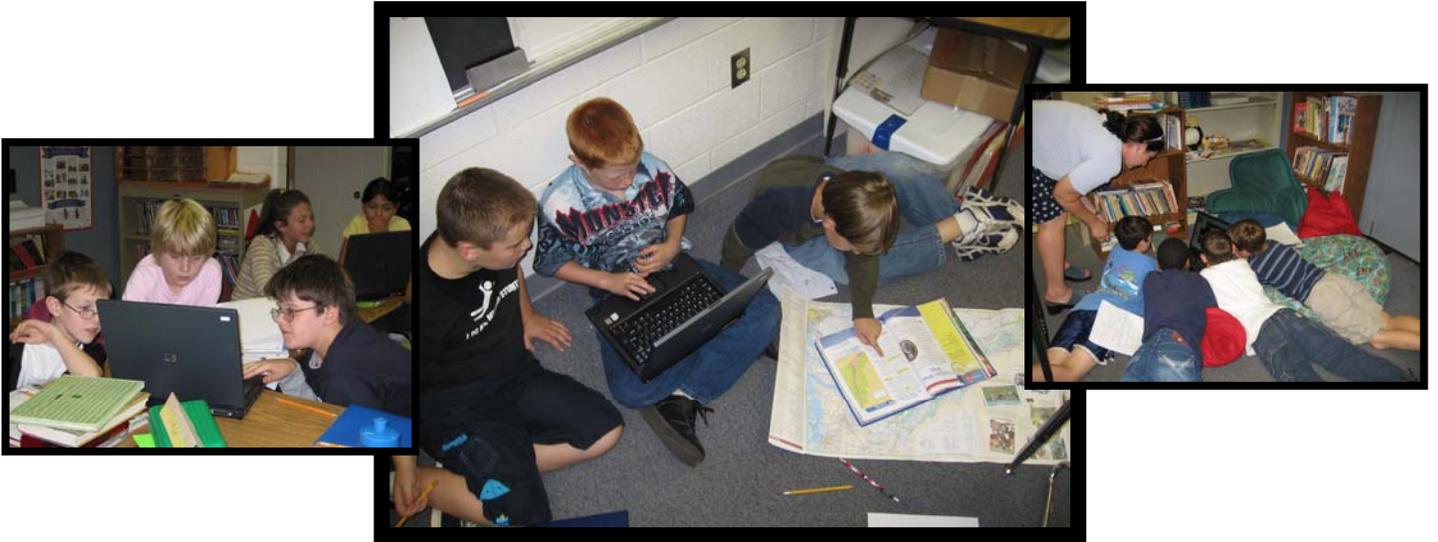
For some teachers, their skills grew far beyond basic ‘tech’ skills. They discovered the real benefit of the “technology tool” in their daily practice. Over the years, increased student motivation, use of student-centered activities, and consistent performance on assessments was reported. Related research studies and the testimonials shared by these teachers and their students fueled IT professional development to shift its focus from the teaching of “tool skills” to supporting the “integration of the tool” into the teaching and learning process.

At the same time, the Virginia (VA) State Legislature recognized the importance of investing in teacher professional development to support teacher learning about the integration of technology into instructional content. As a result, in 2004, the legislature voted to establish a standard of quality (SOQ) that included positions for technology support and instructional technology resource teachers (ITRT). By 2005, the ITRT program was implemented in most VA School divisions. The current SOQ calls for 1 ITRT per 1,000 students.

Population growth and the shift in the demographics of Spotsylvania County Schools (SCS) reflect significant increases in economically disadvantaged populations, special needs students (SWD), and English language learners (ELL). At the same time, SCS and the stakeholder community is committed to preparing all of their students for the 21<sup>st</sup> century global job market. In 2006, a ten million dollar technology bond initiative was passed by Spotsylvania County residents in an effort to improve technology infrastructure, connectivity, and accessibility for educators and students within the county. The current ITRT framework is based on the community’s investment in its children as well as quality professional growth opportunities for its teachers.

The SCS ITRT program is based on the premise that the primary purpose of the ITRT is to help teachers develop the insight, knowledge, and skills they need to become more effective and efficient in meeting the needs of a diverse population of 21<sup>st</sup> century learners. The ITRT program also moves teacher professional development in a new direction. The ITRTs are assigned to schools where they work to improve student performance through ***embedded professional development*** using technology integration approaches and tools. The ITRT works alongside the teacher to enhance curriculum and instruction by suggesting the appropriate technology tool to assist in meeting instructional objectives.

Over the last three years in Spotsylvania County Schools (SCS), the ITRT team has focused on understanding their roles as professional developers, teacher leaders, and technologists for improved teacher learning and instructional support. In addition, research conducted on the team has informed the team about processes and approaches that are most effective in supporting positive change in the teaching and learning process.



### **ITRT Program Goal**

The ITRT program aims to improve instructional practice and student achievement for the 21<sup>st</sup> Century learner by supporting administrators, teachers and their work with students. By supporting teachers in the planning and implementation of instruction, the ITRT provides the link between the technology tool and its effective integration into all areas of instruction, productivity, and instructional management. In addition, the ITRT delivers the expertise, the focus, and the resources to maximize the use of technology tools to improve teaching and learning for teachers and students in their assigned school(s).

### **ITRT Program Objectives**

#### **To improve student learning and performance through embedded collaborative professional development**

1. Promote the use of research and best practice in the classroom.
2. Design and assist with the implementation of lesson plans and projects with teachers. These activities reflect curriculum map alignment, high quality instructional design, appropriate learning strategies, and technology tools.
3. Incorporate knowledge of adult learning principles into daily work with teacher colleagues.
4. Assist with the utilization of instructional and assistive technologies to meet the instructional needs of teachers with their students.
5. Promote high expectations for teacher and student performance.

**To improve student learning and performance by building professional relationships that organize educators into learning communities that are based on the school improvement plan (SIP) and school division initiatives and goals.**

1. Involve the educational community in learning about technology and its importance in the educational process.
2. Inform the learning community about 21st Century work skills.
3. Utilize technology and instructional resources to support collaboration.
4. Guide instructional improvement by utilizing teacher leadership skills.
5. Replicate and share successes with other educators in the school division through conferences, meetings, and school-based division-wide professional development courses.

**To improve student learning and performance by using data driven decision making.**

1. Assist staff in the utilization of high quality assessment and information tools.
  - a. Student benchmark analysis via *SOLO*
  - b. Classroom formative assessments
  - c. Analysis of elementary literacy data via *LitAssess*
  - d. VA Standards of Learning (SOL) data
2. Maintain and utilize informal and formal measurements to evaluate the effectiveness of the ITRT's daily work and teacher growth throughout the year.
3. Utilize data to determine professional development priorities, monitor goal progress, and sustain continued improvement.

The ITRT program objectives provide the foundation for the development of *professional development contracts* for each school where the ITRT is assigned to work during the school year. Along with division-wide identified instructional and technology initiatives, the ITRT, school leadership team, and Director of Instructional Technology negotiate a professional development contract that becomes the performance guideline for the ITRT assigned to that school. A sample professional development contract is available in Appendix A.

**2007-2008 Spotsylvania County School Initiatives**

During the 2007-2008 school year, the following initiatives provide the foundation from which a school-based professional development contract is developed:

Office of Instruction: The SCS *FOCUS*, *CARE*, and *SOLO* Programs along with specific Instructional programs such as *NSTAR*, *GIS*, *Literacy*, *ESOL*, and *VGLA*, support incorporated into the school professional development contract for the ITRT if identified as a goal for the school

Office of Human Resources: Employee Self Serve, *TSIPS*, Digital literacy training for all staff, Office 2007, Windows Network Training

Office of Technology Services: *SCORE*, Implementation of Interactive White Board Technology, CPS, COWs, Distance Learning

These professional development contracts drive program delivery and are customized for each school's needs and goals. In this way, the ITRT program incorporates a differentiated approach to improving teaching and learning for each unique school culture within the school division.

### **ITRT Program Delivery**

Although primarily an embedded delivery model, ITRTs customize professional development based on the needs of the teachers and performance goals of their assigned school(s). In addition to teacher learning opportunities provided during the instructional day, ITRTs also design and conduct professional development workshops, graduate courses, technology trainings in support of school division initiatives, and site-based professional development goals. For this reason, program delivery may look different from one school to another throughout the school division.

### **Embedded Professional Development**

Educators acquire knowledge, skills, attitudes and beliefs necessary to create high levels of learning for all students through staff development. (NSDC, 2002). Numerous research studies reveal that the most effective way to deliver professional development is *in the classroom during the instructional day*. Referred to as an embedded professional development delivery model, the ITRT program attempts to improve student performance by offering teachers an experienced peer (the ITRT) to support their understanding and integration of 21<sup>st</sup> century teaching and learning practices within the instructional day. Now, in its third year, the ITRT program has been effective in cultivating a climate that supports the seamless integration of technology into professional practice by way of peer to peer partnerships, learning communities, and school-based teacher leadership teams.

### **How the ITRT works**

The ITRT works in the classrooms and offices along side teachers and staff. They support the School Improvement Plan (SIP) and ensure that technology and other division goals are embraced at the school level. At every opportunity, the ITRT infuses technology to improve communication, task efficiency, data-driven decision making, instruction, and in the end, student performance. ITRTs promote trust, rapport, and teamwork among teachers before introducing new technologies and concepts to their colleagues. For ITRTs new to a school culture, they spend the entire first year building relationships with teachers, administrators, and staff because they understand the importance of getting to know their teacher colleagues and are appreciative of the demands placed on teachers in today's classroom. Since SCS' ITRTs were all former classroom teachers, they also are committed to building a partnership that supports continuous learning for the teacher and the student. Over time teachers understand that many of the technology integration ideas actually improve delivery, understanding, and the efficiency of teaching and learning, and the ITRT realizes that this process takes a great deal of time and is different for every teacher in every school.

“Beginning with the end in mind” (i.e. increased student learning), ITRTs utilize data to design professional development based on targeted goals identified by teachers, staff, and administrators to improve student performance. The data will not only include test

performance and information gathered from technologies such as *SOLO* and the *Quarry*, but will also take into account curriculum map alignment, attitudes, beliefs, culture, and current knowledge of 21<sup>st</sup> Century teaching and learning integration practices. It is important to emphasize that the program is based on improved student performance as defined in the *Virginia DOE Technology Plan* (Review of Literature, Integration Section). While test scores are important, the ITRT program acknowledges the DOE's recognition that a quality education in the 21<sup>st</sup> Century goes far beyond passing "test" scores. The ITRT program embraces this definition of student achievement because it is unrealistic to base the success of this program solely on improved SOL annual test performance. There are far too many mediating variables influencing test scores to base the impact of this professional development program on quantitative test data from students.



The program is focused on improving student achievement by adopting the long-term goal that students will emerge as prepared citizens in the 21<sup>st</sup> century society. It measures the impact of the ITRT by analyzing improvement in teacher practice, student motivation, and engagement. While understanding that achieving this long-term goal requires time, the ITRT program strongly emphasizes the importance of building trust, rapport, and professional relationships with educators at all levels in the school and the school division. From experience and data collected to date, ITRTs assigned to one school impact positive change and increased school improvement since they became part of that school's learning community and established strong working relationships with staff and leadership.

The ITRTs work at blending on site professional learning that can take many forms. Their work draws on the perspectives, talents, and contributions of the teachers working in the school. In addition, the ITRT recruits "experts" and other instructional technology colleagues who are located beyond the school campus by promoting inter-school division collaboration and online learning projects. By incorporating the *NSDC's Standards* into their daily work, the ITRT program promotes teacher leadership and shared decision making about high quality professional development, teaching, and learning throughout the school division. The 2007-2008 ITRT team is provided by name, school assignment, and former teaching experience. Special licensure, post graduate degrees and professional leadership experiences are also provided in the table.

## 2007-2008 ITRT Assignments and Professional Profile

<b>ITRT</b>	<b>Elementary School (s)</b>	<b>Years/Grades</b>	<b>License</b>	<b>Type of Experience</b>
Megan Foley	Robert E Lee ES/ Spotswood ES	9/K-5	PGP	Admin and IT Certs
Katrina Negley	Brock Rd/Berkeley ES	21/K-12 Art	PGP	Art/Prof Dev/PhD'10
Sherry Smith Ward	Salem ES/Berkeley ES	11/3,4, FL	PGP'09	ELL/Spanish/SS
Patricia Kingsford	Courtland ES/Battlefield ES	6/1	PGP	NBC
Karen Clore	Chancellor ES/Livingston ES	22/NK-4	PGP	Reading Spec, Inclusion
Jodi Moore	Smith Station ES	32/6,7	PGP	Math/LA/Sci/Prof Dev
Nathaniel Krueger	Wilderness ES	5/4	PGP	Web Auth/Coach
Mary Hefner	Courthouse Rd ES	25/3,5,7	PGP	Civics/Math
Amy Marshall	Riverview ES	14/4,5,Math	PGP	SPED/MWC ITS
Josh Long	Harrison Rd ES	7/ 3,5	PGP	Math/Science
Wendy Fletcher	Parkside ES	22/ K,1,2,	PGP	Inclusion/Dept.Chair
Jessica Carter	Lee Hill ES	10/ K-5/SPED	PGP	Autism/LD/ED
<b>ITRT</b>	<b>Middle School</b>			
Matthew Malobicky	Battlefield MS/Battlefield ES	20/4,5,6,7,8	PGP	Math/ComSci/Coach
Brenda Conway	Ni River MS	11/5,8	PGP	Physics/Math/Sci.
Kristen Amos	Freedom MS	14/6,7,8	PGP	SCOPE/SPED
Pete Zicari	Post Oak MS	13/6,7,8	PGP	Bus.Ed/Coach/Prof Dev
Angel Shaw	Spotsylvania MS	12/6,7,8	PGP'08	S.S./Reading/Chair
Emily Horney	Thornburg MS	9/6,7	PGP	Diverse Pop/Eng.
Bill Warrick	Chancellor MS	29/6,7,8	PGP	ITS/Admin/PhD
<b>ITRT</b>	<b>High School</b>			
Lisa Quinton	Chancellor HS	11/5,8,9,10	PGP	ITS/Math/SS/Prof Dev.
Carlene Beegle	Courtland HS	32/9,10,11,12	PGP	Alg/Advanced Math
Carrie Rehberg	Spotsylvania HS	24/6,7,8,9,12	PGP	Prof Dev/Bus/TRT
Claudia Vandermade	Riverbend HS	20/7-12	PGP	Library Sci/ITS
Cyndi Pixley	Massaponax HS	16/8/LA, Sci.	PGP	Sci./LA/ITS/PhD08'

### **Key**

PGP = Post graduate Professional license in Virginia

Prof. Dev = SCS Professional Development Exp.

ITS = Experience in Instructional Technology professional development

PhD = Doctoral research, degree, work in Instructional Technology during the last ten years

Admin = Administrative leadership experience

NBC = National Board Certification

FL= Foreign Language

Sci. = Science

LA = Language Arts

Alg = Algebra

SS = Social Studies, history

## **The Structure of the ITRT Program**

As the primary Technology Services professional development team, the ITRT program structure is outlined and performance roles and guidelines are established in an effort to ensure consistent performance in the future and provide ITRTs, teacher colleagues, and leadership insight about the multiple roles in which ITRTs function during the instructional day. In addition, the roles of primary stakeholders are provided to ensure a shared understanding about how the program is designed to work.

### **Supervision and Management**

#### **The Instructional Technology Director**

The ITRT program is managed by the Director of Instructional Technology. The division-wide initiatives that guide what the ITRT will promote and embrace in schools are determined at the central office level by the Director, the Assistant Superintendent of Technology Services, and the entire Instructional Department. For example, the focus on improved learning and understanding in math and science has led to shared decision making and collaboration between the mathematics and the instructional technology offices to promote projects such as *NSTAR* and *STEM* Clubs in schools. In this way, new instructional and technology initiatives have a better chance of being systematically adopted throughout the school division since both the math specialist and the ITRT partner to introduce these programs and support teachers as they incorporate these initiatives into their teaching practices.

Other responsibilities related to the ITRT team include:

- Establishing and reinforcing procedures regarding the selection, deployment, work, performance expectations, and evaluations of the ITRT
- Individual ITRT and team differentiated ongoing professional development
- Individual and grade level ITRT team coaching
- Accountability and evaluation of ITRT work
- Managing the professional development budget and grants supporting the work of the ITRT
- Approval of professional, personal leave (managed centrally), and sick leave (managed at the school level/*AESOP*)

#### **The Principal's role**

The school level principal plays a very important role in assisting the ITRT in identifying how to adapt and implement division-wide initiatives to meet the unique needs of the teachers and students in the school(s) where the ITRT works. In schools where there is a strong partnership between the ITRT and the principal, these adaptations have transformed into a professional development approach that has been very effective in addressing teachers' individual learning needs and concerns as they learn new practices and technologies. Moreover, this differentiated approach to delivering new tools and instructional strategies in the classroom has led to sustained implementation of improved teaching practices in schools.

Since the ITRT program recognizes that every school has different needs, the principal also provides insight on school-level instructional and technology initiatives using the school improvement plan (SIP), and current data on overall school achievement and performance (via *Quarry*). Along with the ITRT's knowledge of specific classroom performance on assessments and benchmarks via *SOLO*, the professional development contract is developed as a customized plan and guide that the ITRT uses to measure their work as an embedded professional developer throughout the school year. A sample professional development contract is available in Appendix A.

Principals who have had success with their ITRT recognize the ITRT as a teacher leader in their school. For some principals, their role as the instructional leader is transformed into the facilitator of a community of teacher leaders by providing opportunities and building capacity in their buildings to support the adoption of new teaching practices. Referred to in the literature as *professional learning communities* (PLC), these teacher leadership teams may consist of the ITRT, instructional coordinator, math specialist, reading specialist, team leaders, teachers and school leadership. These teams may work together at designing and implementing plans and projects within the building and provide a team approach to support one another and the staff during the instructional day.

The Principal's role in supporting the work of the ITRT includes:

- Promoting a culture that supports the collegial learning about teaching, learning, and technology integration  
This includes:
  - Introducing the ITRT to the staff to establish credibility
  - Provide working conditions, workspace and basic resources for the ITRT
  - Explain and/support the role of the ITRT, their focus on supporting technology integration, and the services and professional development that the ITRT offers teachers
- Assisting the ITRT in diagnosing the current school culture to determine the best approach to support continuous improvement in teaching, learning, and technology integration
- Providing school improvement goals and offering input and feedback on the IT professional development contract for their school
- Ongoing consultation with the Director of Instructional Technology on the work and the evaluation of the ITRT assigned to that school
- Respecting the importance of the ITRT's professional development needs to meet with their own colleagues, attend conferences, and attend training with the Director of Instructional Technology and the Assistant Superintendent of Technology

### **Teacher's role**

The ITRT is provided to assist and partner with teachers to support improved learning through the integration of 21<sup>st</sup> century technology tools and instructional strategies. The goal of the ITRT program is high level learning for students by way of professional development for teachers. This goal will require an understanding among teachers that their own professional development with an ITRT can occur in the classroom, during the workday, and at the same time that they are working with their students. Working with an ITRT requires the ability to communicate, collaborate, and work in partnerships aimed at improving student performance and the teacher's own professional learning. The ITRT delivery model is designed to support any teacher who requests support and assistance from the ITRT, but requires the teacher's willingness to

participate fully in the professional growth opportunity. While working with an ITRT, the teacher's responsibility includes:

- Content and/or subject area knowledge/understanding of the lesson plan or activity
- Classroom management during the time that the ITRT is working with the teacher in the classroom
- Respect for keeping appointments with the ITRT, follow through on agreements about the work to be done, resources, expectations, and feedback
- A willingness to reflect on current practices and work towards the adoption of new practices that have proven effective with students
- An understanding that the ITRT will work in multiple roles and ways in an attempt to support the teacher through the change and adoption process (dependence on ITRT through full independence)
- Commitment to working with an ITRT and respecting the time limits and demands placed on the ITRT serving one building

One of the most powerful forms of instructional technology professional development occurs in teams that meet on a regular basis for the purposes of planning, developing activities, learning, and problem solving. Often called professional learning communities (PLC), these teams may work together at implementing their plans within the building. The PLC may include the ITRT, teachers representing the grade level, common technology interest, shared subject area specialization, and school division initiatives. ITRTs will often ask to collaborate or focus on a whole team of teachers based on recognized need, demands on their schedule, and limitations of time.

### **Confidentiality**

Confidentiality is an important issue to be discussed among principals, teachers, and the ITRT. Although some ITRTs have strong instructional leadership experience and are capable of evaluating lessons and teaching practices, ITRTs are not placed in classrooms to evaluate the work of the teacher. The ITRT functions as a partner to assist and support the professional growth of the teacher. Teachers may ask an ITRT who they have established a trusting relationship with to function as a 'critical friend' in analyzing a lesson, but the Director of Instructional Technology and the principal respect that the ITRT should not be placed in a supervisory role to evaluate the teacher's work at any time.

ITRTs maintain a shared electronic calendar that documents the teachers and grade levels the ITRT is working with on a daily basis. An example of this calendar appears on page 31. In addition, the ITRT documents and measures their own work with specific tools and strategies in an online activity log (see page 29). It is understood by teachers, principals, and school division leadership that it is important for the ITRT to communicate to principals and leadership about their work.

Guidelines that support the ITRT's communication with leadership while respecting the confidentiality of their teacher colleagues are as follows:

- Teachers with whom the ITRT is working is documented
- Topics, objectives and technology tools that are discussed with teachers

- The amount of time that they spend with each teacher
- Tasks that they are doing with the teacher and students

*Adapted from publications by Brady, Killion, Knight, Moller & Pankaake, Tallerico located in the reading reference section of this handbook.*

Principals and school division leadership are welcome to observe the work of an ITRT at any time. However, observing the teacher's work is respected by both the ITRT and the Director of Instructional Technology. Throughout the year, the Director of Instructional Technology will be in the schools observing and working with ITRTs. Often, these observations take place in the classroom to provide feedback to the ITRT, observe the use of various tools at different grade levels, and troubleshoot technology problems interfering with the efficacy of the lesson activity.

Building a trusting partnership is essential to the work of the ITRT and breaching confidentiality with teachers translates to immediate breakdown and failure for the ITRT and teacher. All stakeholders are asked to support the rule of confidentiality, follow the guidelines listed above, and understand that these guidelines may vary from other professional development models established in the school division. Teachers do need to understand that the ITRT, as a licensed teacher in Virginia, is obligated to report any actions that are harmful to the safety and well being of the students.

### **Other Key Stakeholders**

#### **Media Center Specialist/Librarian**

The relationship between the librarian and ITRT is a powerful partnership since both roles have the potential to support teachers with web-based resources and digital literacy expertise. The librarian is often the individual in the school who maintains the inventory of equipment including technology tools such as digital cameras, video cameras, GPS units, CPS units, and scanning equipment. The librarian is the primary resource for informational literacy resources such as copyright guidelines, Internet Safety guidelines, and media resources.

#### **SysOp**

The SysOp supports the ITRT and teacher with software installation and hardware support. In situations where the ITRT is in the school less than 4 days a week, the Sysop is available to assist the teachers in the operational aspects of technology to support integration by providing hardware and software support for the teachers and staff. This support includes but is not limited to providing desktop, equipment and application support.

#### **The Field Technician (Field Tech)**

The Field Tech is the link between the SysOp and Technology Support Analysts. As the liaison, the field tech works with both the SysOp and the ITRT. The ITRT often expresses the needs of the teacher to the field tech. Ideally, the ITRT and the field tech should work closely together with the implementation of new computer images, new software and its operation at the school level.

## **Instructional Technology Resource Teacher** **Performance Roles**

The ITRT performance roles and expectations identify numerous roles in which the ITRTs may function during the school year. These roles are used to guide, direct, and measure his/her daily work over the course of the school year. ITRTs work in the following professional development roles or combination of roles in their daily work:

- Coach
- Role Model
- Collaborative Partner
- Consultant
- Resource Provider
- Program Manager
- Teacher Leader
- Trainer/Designer
- Change Agent

Information on roles adapted from “The Multiple Roles of Staff Developers” by Joellen Killion and Cindy Harrison, *Journal of Staff Development*, Summer 1997 (Vol. 18, No. 3).

The following pages describe the various roles of the ITRT in detail and provide some example projects, activities and initiatives that illustrate that role in Spotsylvania County Schools. The role that an ITRT adopts in the school building is dependent on the school’s culture, the type of task or project that the ITRT is working on, the teacher’s role and the teacher’s level of understanding and comfort regarding the new technology, instructional practice, and/or strategy. It is important to review this information to gain a sense of how the ITRT will shift from more traditional roles such as ‘role model’ to more progressive roles such as Change Agent.

### **ITRT as a “Coach”**

*In this role the ITRT functions closely with the teacher one-on-one. By building relationships and developing trust, the ITRT promotes communication in an effort to determine in which areas of the curriculum and instructional program the teacher is experiencing difficulty.*

*The teacher expresses his/her concerns based on student needs arrived through specific SOL results, benchmark assessments, student and teacher need. Through these discussions, the ITRT listens closely to the needs of the teacher and helps the teacher develop lessons and activities that integrate technology to support student learning.*

*The coaching role is usually blended with other performance roles or is utilized by some ITRTs as a specific role or approach on a daily basis. In schools with a large teaching staff, the ITRT will often meet and target a group of teachers’ needs or wants based on grade level or content.*

## **ITRT as a Role Model**

*The ITRT as a role model meets with individual and or groups of teachers to identify the classroom needs. Collaboration and debriefing are required by both the ITRT and teacher. The ITRT presents the lesson to the class and teacher, encouraging the classroom teacher to be an active participant. The ITRT must be a respected, trusted, and cohesive part of the faculty with an open door policy allowing for a positive rapport with colleagues.*

### **In the role model role an ITRT will:**

Be knowledgeable of:

- The Virginia Standards of Learning
- The Enhanced Scope and Sequence
- The Spotsylvania County Curriculum Map

Be willing to:

- Collaborate
- Share
- Debrief
- Find resources
- Prepare materials/lessons
- Convey best practices as they are modeling lessons
- Adapt to various learning environments and styles

### **Example Projects/Initiatives:**

- Modeling a lesson
- Presenting at new instructional approach with technology at a faculty meeting
- Presenting at new instructional approach with technology at a Professional Development Workshop



### **Collaborative Partner**

*The staff developer's goal as a collaborative partner is to provide encouragement and reassurance for the teacher as they embark on the integration of technology into their educational practices.*

*In this role, the ITRT provides support, if needed, during early implementation of technology. The goal of the collaborative partner is to guide the teacher toward fully implementing technology independently. Working in this role, the ITRT bridges the gap between having the classroom teacher observe a model lesson to the teacher replicating the instructional approach and/or technology integration with minimal support from the ITRT.*

*Ideally, teachers move from observers to becoming independent technology integrators with the curriculum.*

#### **In the role as a collaborative partner an ITRT will:**

- Support the teacher as they begin planning for the integration of technology
- Support the teacher in different phases of the implementation of technology integration
- Provide as-needed support as the teacher independently implements technology

#### **Example Project/Initiatives:**

- Assists the teacher who is delivering his/her own PD on technology setup, use, and integration of technology tools with minimal support. The ITRT is not actively engaged in the teaching process
- Work with teacher to prepare technology infused lessons from 'behind the scenes'. The ITRT may have assisted in the design phase of the lesson, but may not be on the scene for its delivery except for specific parts of the activity that the teacher requires assistance with during the implementation

## **Task Facilitator**

*The staff developer as facilitator is the role of one who makes things happen with ease. The role of facilitator differs from a consultant in that the consultant is responsible for conducting a diagnosis to help determine a course of action. The consultant role usually occurs before facilitation and may result in the need for a facilitator.*

*Facilitators have defined goals to achieve. Consultants seek to help define goals based on an analysis of the context and situation.*

*There are two roles of facilitators. A task facilitator orchestrates a project or assists a group in completing its task; a process facilitator focuses on the interactions among group members. Commonly, the facilitator assumes both task and process responsibilities. In task facilitation, the staff developer is responsible for working with the group to accomplish its task or charge, and reaching closure with the group and its work.*

### **In the task facilitator role an ITRT will:**

- Execute or manage the execution of tasks to achieve goals of a project or activity
- Follow timeline(s) established for tasks
- Support process(es) needed for the accomplishment of project or activity
- Work as a member of a team with common goals

### **Example Projects/Initiatives:**

- The ITRT “actively assists” a teacher who has requested support
- The ITRT helps a team configure a SMART board for a faculty presentation
- The ITRT assists a group of teachers and students with Tech Fest set up

## **Consultant**

*Staff developers often serve as consultants. Consultants help guide, assist, and support individual teachers, small groups, or teams. Staff developers assist staff by providing guidance, resources, expertise, and a fresh perspective*

*A key responsibility for the consultant is the sharing of skills and knowledge so as to build the capacity of others. The consultant helps the teacher be successful in his or her work by coaching, advising, and suggesting alternatives.*

*As consultants, staff developers depend on many skills. One key skill is listening, not only to the content but also to the implicit messages underlying the words. Other skills include data gathering, questioning, and analyzing information. Professional developers also need skill in contracting and the process of reaching agreement between the teacher and the consultant.*

**In the consultant role an ITRT will:**

- Meet with grade level teams, department teams, or individual staff members as they plan instruction
- Listen to the articulated goals for student learning
- Provide alternative strategies for integrating the use of technology in regards to
  - Content
  - Process
  - Product
- Help staff “select” the most appropriate use of technology for the instructional goal(s)

**Example Projects/Initiatives:**

- The ITRT responds to a teacher’s request to design a technology integrated science lesson. The ITRT suggests the idea of utilizing the principles of “Understanding by Design” and provides the resources to the teacher to write the lesson
- Attend scheduled department/team meetings and listen for technological needs and/or concerns in order to assess the needs of the population. Interject ideas or solutions to team when appropriate. Assist in designing lesson plans with teachers that encourage teamwork or cross-curricular learning strategies
- The ITRT consults with the leadership in the school with regards to the school improvement plan

**Resource Provider**

*The ITRT’s goal as resource provider is to provide or link “teachers” with resources that will help them reach their desired outcomes. The ITRT also disseminates resources through a newsletter, research update, or other means.*

*\*High School(HS) ITRT functions in the resource provider role more than other ITRTs because of subject area specialization and the number of teachers that they must serve. Although the HS ITRT may not specialize in the teacher’s content area, they are able to employ a variety of technical tools and skills to locate and evaluate resources.*

**In the resource provider role an ITRT will:**

- Research a variety of areas to include school improvement, instructional strategies, leadership, program evaluation, and student assessment
- Locate, access, and search on-line databases, libraries, and journals
- Network with colleagues to locate information or people to assist in particular areas of instruction or professional development
- Analyze information and resources to verify their accuracy and assess their quality and relevance to SCS

### **Example Projects/Initiatives:**

- The ITRT provides the necessary resources to support school improvement plans in the areas technology integration goals
- The ITRT will attend conferences such as VSTE or DOE to stay abreast of latest research and integration and techniques
- Develop a web page or SCORE repository to be used as a resource that includes lesson plans and/or popular resources that are used and categorize it accordingly
- The ITRT will provide teachers with lists of links to resources that may be used in an upcoming project. For example, if the fourth grade is about to study Colonial Williamsburg, the ITRT will research several sites and resources that correlate with the SOL for fourth grade and share these resources with teachers
- The HS ITRT might partner with the school librarians to help an Earth Science teacher find online water pollution data for a project on the Chesapeake Bay

### **ITRT Program Manager**

*In the ITRT program manager role, staff developers provide leadership and carry out necessary functions such as administrating programs, coordinating services, and delegating responsibilities. Functions will vary depending on the project or program and its magnitude.*

*In this role, the ITRT may support an administrator, instructional specialist, or teacher in utilizing different types of school division or school level initiatives (e.g.). In addition, ITRTs manage various instructional initiatives that include technology tools at the division or school level.*

### **The ITRT as program manager can:**

- Manage and support ongoing IT programs/initiatives
- Manage and support the creation of IT initiatives that:
  - Respond to staff or student needs
  - Establish clear and measurable outcomes with regards to instruction and learning
  - Ensure effective and efficient use of these programs to improve instruction and student achievement
- Manage and support modifications to reach the identified outcomes

### **Current Project/Initiatives:**

- An ITRT is assigned to manage and support SCORE at the division and school level
- An ITRT is assigned to manage and support the technical aspects of NSTAR for their school or the math supervisor
- Develop effective communication technologies within the school such as shared calendars



### **Teacher Leader**

*The purpose of a teacher leader is to work collaboratively with the school's leadership to design, implement, and assess school change initiatives to ensure alignment and focus on intended results.*

*Part of the teacher leader's role is to make a positive difference in a school culture. The teacher leader must be committed to the school vision and must display attitudes, behaviors and commitments that align with the school goals. The teacher leader must possess leadership skills in order to motivate and facilitate positive changes in the school culture.*

#### **In the role as a teacher leader an ITRT will:**

- Be a positive role model
- Maintain trust and rapport with teachers and administration
- Be an active member of the school improvement team
- Work collaboratively with the school leadership on implementation of school initiatives
- Build skills and confidence in others
- Lead the implementation of new initiatives
- Motivate and encourage teachers to take conservative risks and try new approaches in the classroom

#### **Example Projects/Initiatives:**

- The ITRT will collaboratively work with the school improvement team to ensure that instructional technologies are integrated for communication, productivity, and efficiency
- The ITRT will be an active member of the Leadership Team in their school.
- The ITRT will meet regularly with school administration to discuss progress of instructional technology initiatives and goals
- The ITRT will serve as a liaison between the school and central office staff

## **Change Agent**

*Being a change agent is a demanding role for professional developers. In this role, the staff developer suggests new ideas. By examining ways to be more effective, to move beyond the status quo, and to question underlying mental models and personal theories, the staff developer promotes learning and continuous improvement.*

*One responsibility as a change agent is promoting and guiding continuous analysis and reflection among members of the organization. To improve, members of the organization must examine the effectiveness of their current practices, policies, and procedures. The staff developer-as-change agent is also responsible for modeling alternatives to current practices and to bringing new perspectives, ideas, and suggestions for consideration to staff.*

*They network with colleagues to inquire about others' approaches and perceptions regarding similar tasks or projects. They use a variety of strategies, including sharing readings, arranging visits, creating newsletters to share information, and modeling innovative practices.*

### **In the role as a change agent an ITRT will:**

- Continue individual growth in knowledge of current research on instructional practice and technology integration
- Share information on best instructional practices that could embed technology
- Work collaboratively with other ITRTs, Instructional Coordinators, IT/AT Coordinators to define best instructional practices and promote them among stakeholders

### **Example Projects/Initiatives:**

- The ITRT supports the planning, management, and implementation of multi-day, symposium for teachers and administrators that emphasize preparing our students for success in the 21<sup>st</sup> Century society
- Plan professional development using universal design to model best practices for integration of technology
- ITRTs will meet to collaboratively develop lessons using discussion topics. Collaboration will involve sharing research ideas, the use of technology tools and assistance in creating lesson plans that address the needs of the population based current data

## **Trainer/Designer**

*The staff developer as trainer/designer helps others acquire new skills, knowledge, and attitudes through designing and delivering training. Today's instructional technologist and professional developer often custom designs training, plans on-site implementation assistance, focuses on measuring the training's impact, and influences the necessary systemic changes.*

*To be successful as designers of training, professional developers must know and be able to apply theories on adult learning, instructional design, diagnosis, evaluation, group process, and individual and organizational change. In addition, the staff developer needs the skills to deliver content in an engaging and effective manner to optimize learning, build rapport with learners, monitor participants' responses and adjust the design or delivery, and evaluate the training's impact.*

*Designers must constantly update their understanding of the specific content and explore effective ways of delivery.*



### **In the trainer/designer role an ITRT will:**

- Assess teachers' needs with student learning needs evidenced in the formative, summative, and qualitative performance data available in their school and for the school division
- Design and develop workshops/trainings that...
  - Meet the needs of the participants
  - Provide training in use of technology tools
  - Support the SCS Goals and the SIP
  - Focus on instructional strategies that integrate the use of technology and reflect practices promoted by division level instructional specialists

- Incorporate the latest research
- Honor the adult learner
- Deliver workshops in an engaging and effective manner to optimize learning at school sites
- Provide follow-up if needed
- Assess the training impact on student learning
- Evaluate workshops' effectiveness

**Example Projects/Initiatives:**

- In collaboration with the instructional team for middle school populations, The ITRT will design, develop, and offer a traditional professional development workshop on the integration of web-based, portable technologies to support the writing process in 8<sup>th</sup> grade classrooms identified as NCLB target populations by SCS administration.
- Use survey results to design professional development to meet individual needs on how to effectively integrate technology tools into classroom lessons.
- Assist teachers in acquiring necessary technology tools for integration.
- Promote SCORE for reflection and evaluation of professional development effectiveness.
- Offer software training for a project to a group of teachers on using a spreadsheet tool to support data analysis in math.

**How successful ITRTs work to support teacher learning:**

Over the last three years, two university studies conducted on the Spotsylvania ITRT team have revealed how the ITRT works on a day to day basis to achieve and sustain improved teaching and learning in their assigned school(s). Although contracting with school and division leadership using the outline of what the ITRT does on a daily basis is helpful, research reveals that the processes that the ITRT uses varies widely among the individual ITRTs and grade level ITRT teams. ITRTs who have had significant success in supporting positive change in their schools possess similarities with regards to their backgrounds, approaches, skills, and experiences that they bring to the job.

**A differentiated approach...**

For SCS, ITRTs who possess strong interpersonal skills, diverse teaching backgrounds, and the ability to adopt a differentiated approach with their teacher colleagues experience more positive response to their efforts to establish themselves by building trusting relationships with key stakeholders in their assigned building. These ITRTs adapt division and school goals for individual or groups of teachers. This approach leads to more success with sustained improvement and positive growth for the teacher in the classroom.

**Characteristics of Successful ITRTs:**

While conducting the studies of ITRTs, it was found that the characteristics of an ITRT could be ranked by order of importance. These characteristics are explained below in ranked order.

### **Interpersonal Skills:**

I TRTs who are enthusiastic, trustworthy, reliable, and responsible toward their teacher and administrative colleagues find it easier to be accepted and become part of the school culture. Good communication and listening skills are also essential attributes for the I TRT to possess. Whether it is a student learning need, a desire to incorporate a new approach into a lesson, or a specific curriculum concern, the I TRT who is able to understand the teacher's need is utilized more than the I TRT who simply delivers new tools to the whole staff and encourages them use these tools.

Some of the ways by which an I TRT discovers and assists teachers is through an identified need:

- Attending grade level meetings to listen to problems and challenges being discussed
- Meeting one-on-one with a teacher or group of teachers about challenges in the classroom
- Presenting at a faculty meeting and offering follow up to specific groups of teachers
- Assisting teachers with data driven decisions about which student(s) to target and what strategies and technology tools (if appropriate) may work

### **Diverse Teaching Background:**

The instructional background experience of the I TRT is critical to his/her credibility and skill level while working in this cross curricular embedded professional development model. I TRTs that previously taught general and special education students, multiple subject areas and/or grade levels, and have a strong knowledge of the curriculum and current instructional practices will have more success with a variety of teachers in their assigned school.

Some of the ways that background experience supports future work as an I TRT:

- An Elementary I TRT who previously worked in a collaborative classroom with both special education and general education students suggests Universal Design Learning (UDL) and support tools to the teacher who asks for ways to differentiate for diverse students
- A middle school I TRT suggests to the teacher that a 6<sup>th</sup> grade math lesson link to the real world using an authentic problem and spread sheet activity
- A high school I TRT gathers Internet resources for the teacher to support an Ancient Civilization unit in World Geography

### **Technology Integration Skill and Experience:**

I TRTs that spend time aligning technology to the pacing guides and SCS curriculum maps are more likely to get buy-in and support from the teachers in their school. Since teachers in the school division use curriculum maps to help plan the content they will be teaching, the I TRT who plans ahead is 'one step ahead' of the teacher. By offering ideas for integration prior to the introduction of a new unit, the I TRT will have more success when introducing new ideas to the teacher.

Historically, teachers who possessed strong technical skills were placed in roles as the technology lead teacher, technology coach, or technology trainer. They often did not have a great deal of experience in the classroom, since much of their previous experience involved troubleshooting, technology support issues or addressing technology-related responsibilities.

Over the last three years, research has revealed that classroom teachers who have extensive and diverse experience in the classroom are more skilled in tying the tool to the curriculum. This is not to say that a teacher who has worked outside the classroom can't successfully transition into the ITRT role, but our experience has been that classroom teachers with an understanding of the SOL curriculum are more successful in the ITRT position.

- Example of an SCS curriculum map appears in Appendix B
- The ES ITRT resource website which provides resources aligned with the VA SOL is available at [http://www.spotsylvania.k12.va.us/ITRT\\_Elementary](http://www.spotsylvania.k12.va.us/ITRT_Elementary)

### **Teacher Leadership Experience:**

Previous teacher leadership roles and/or sports team coaching (with young adults) also is characteristic of many successful ITRTs. Leadership roles such as grade level chairperson, subject lead, school improvement plan member, or technology plan member offer leadership opportunities for teachers to practice and develop leadership skills. These teachers also learn about the organizational culture of the school and school division, while in the leadership role. With these leadership skills to draw upon, ITRTs offer their colleagues knowledge, experience and opportunities to try new strategies without the risk of judgment from a supervisor.

Leadership roles that SCS ITRTs have previously held follow:

- School Improvement teams
- School and division level Professional Development Steering Committees
- Athletic Directorships and coaching roles (secondary)
- Grade Level Chair person
- Subject Area lead teacher

ITRTs are encouraged to maintain leadership roles in their assigned buildings and for the school division. Current leadership roles include:

- School Improvement teams
- Internet Safety/Digital Literacy Curriculum planning team
- Division and school level technology planning committees
- Liaison to division level instructional specialists
- Online learning design and implementation team

ITRTs stay closely connected to SCS instructional specialists and often assist the instructional specialists with the implementation of initiatives and programs. Instructional supervisors are assigned an ITRT to communicate with about initiatives, curriculum training opportunities, and support.

<b>I TRT Liaison</b>	<b>Instructional Area</b>
Matthew Malobicky	Middle School Math
Katrina Negley	Art K-12
Karen Clore	English/Language Arts /Literacy K-5
Lisa Quinton	Secondary Social Studies/History
Bill Warrick	Middle School Science
Carlene Beegle	High School Math
Kristen Amos	English/Language Arts/Secondary
Josh Long	Elementary Math
Jessica Carter	Special Education
Pete Zicari	NSTAR Program
Claudia Vandermade	Librarians
Amy Marshall	Elementary Science
Sherry Smith Ward	Elementary Social Studies & ESOL Program
Jodi Moore	Professional Development/SCORE PD
Carrie Rehberg	Technology Newsletter and ITRT Data
Emily Horney	Middle School Social Studies
Cyndi Pixley	Emerging Technologies

### **I TRT Professional Development Program**

#### **A Differentiated Approach**

Like the teachers in the school division, SCS ITRTs require a variety of professional growth opportunities to support their roles as a technologist and embedded professional developer. Their needs are very individualized and reflect both their own identified needs and recommendations from the Director of Instructional Technology. Both informal and formal learning opportunities are incorporated into the ITRT's professional growth plan

ITRTs are encouraged to present at instructional, professional development and instructional technology conferences. Over the past three years, ITRTs have presented at the SITE, NECC, NSDC, NSBA TL+2, Virginia ETLC, VSTE, and SACCs conferences. In addition, they attend a variety of professional development trainings with the NTIER Consortium and have taken courses at local and regional universities. Eleven ITRTs completed graduate study that focused on the integration of technology and curriculum and instruction. Three ITRTs have completed the VSDC job coaches' academy and two additional ITRTs are working towards completion. The entire ITRT team is ISAFE trained and the team will be working towards NETs-T certification during the summer of 2008. Professional development is ongoing for this type of team and every opportunity to participate and present in front of an audience provides a valuable learning experience.

Collaboration, grade level, and monthly meetings are the most common source of professional development among the ITRTs. Most of the ITRTs find that the time working with one another to be the most valuable source of professional growth since it is situated and satisfies an immediate need. Currently, professional development in the form of graduate study, conferences on teacher leadership, and instructional reform is being made available to ITRTs. Since ITRTs are cross-curricular specialists, it remains critical that they keep pace with current pedagogy and instructional practices.

## **The ITRT Mentorship Program for new ITRTs**

The summer before new ITRTs begin their work in the schools they participate in a Professional Development given by veteran ITRTs. During this time they read and discuss professional materials to gain a better understanding of the many roles of an ITRT, and participate in hands-on learning experiences involving the many tools available to enhance classroom instruction. Veteran and new ITRTs engage in informal conversations about the role of an ITRT in the schools based on the experiences of the veteran ITRTs. All new ITRTs are assigned a mentor who guides and supports the new ITRT throughout the school year by answering questions, arranging school visits and planning sessions. As the mentorship program progresses through the school year, new ITRTs are invited to collaborate with and observe ITRTs other than their assigned mentor to support further development of skills and perspective.

## **Leadership Opportunities for Veteran ITRTs**

ITRTs who have been with the program for at least two years take on important leadership roles. They may function as a mentor of new ITRTs, lead the implementation of a technology or instructional initiative, and/or coordinate community events, graduate study courses, division-wide professional development, and after school workshops and trainings.

## **Reflective Practice**

Professional reflection, whether written or verbal, is an essential part of the ITRT's growth and understanding about their work in schools. ITRTs are provided the time and resources to write reflections or talk to one another and the director about their daily work. Written reflection is not required, but many ITRTs find that their own written reflections become a valuable data source when measuring the progress of their teacher colleagues and themselves over the course of a school year. Currently, ITRTs can contribute to an online discussion as part of their professional program, share at monthly and grade level meetings, and meet one-on-one with colleagues and/or the Director of Instructional Technology.

## **Measuring ITRT Progress & Performance**

### **Contracting**

Each ITRT is responsible for developing a professional contract for their assigned school based on that school's improvement plan, identified teacher learning needs, school division instruction and technology initiatives and the goals of this program described in the program goals. Once the contract is signed, it becomes a guidance document for the daily work of the ITRT. The ITRT documents progress towards the goals described in the contract in an activity log and electronic calendar (see page 31). In this way, the information provided on this contract provides a mutually agreed upon understanding between the principal and the ITRT on what to do on a daily basis. It can be used to clarify ITRT's role and responsibilities and also provides a guide for year-end evaluation of individual ITRT productivity and progress. See Appendix A for a sample professional development contract.

## The Activity Log

A tool utilized by an ITRT is the Activity Log. Interactions are recorded on this log daily and reflect with whom the ITRT worked, activity completed, tools used, time intervals, and modality. Through the generated reports of this data, an ITRT can measure the quantity of interactions based on the categories mentioned, who they worked with, the type of interaction, as well as the tool utilized. Screen shots of one ITRT's activity log appear below.

**New Interaction**

Time Spent: Hours:  Minutes:

-Select Activity-

-Select Location-

Name Search: First Name:  Last Name:

Title:

Description:

Interaction Records							
Date	Contact Location	Contact Name	Activity	Title	Hours	Minutes	Description
11/7/2007	Spotsylvania High School	Denise Malone	Modeling	Digital Literacy using PhotoStory3 and the COWs	1	30	
11/6/2007	Spotsylvania High School	Carrie Rehberg	Provide Training or Professional Development	Two 45 minute SCORE workshops	1	30	
11/6/2007	Spotsylvania High School	Carrie Rehberg	Provide Training or Professional Development	Two 1 1/2 hour SCORE workshops	1	30	

Activity Log-Screen to enter data

**Search Records**

Search Criteria: Start Date: 10/01/07, End Date: 10/31/07, Contact: , Location: , Position: , Activity: Collaboration, Tools: , Title: , Description: , Hours: , Minutes:

Contact Name	Title	Hours Spent	Minutes Spent
Pamela Bailey	Math Integrating Meeting	2	30
Pamela Bailey	Algebra I and the Parts Collaboration Meeting	1	30
Pamela Bailey	Algebra II Collaboration Meeting	1	30
Pamela Bailey	Geometry Collaboration Meeting	1	30
Angela Hoopes	Angela Hoopes and Tikki Smith	1	30
Pamela Bailey	Algebra I and parts collaboration meeting	1	30
Amy Laserna	IDEA Grant assistance	1	0
Valerie Webb	SCORE Repository	1	0
Michelle Hart	November 8 planning for Professional Development	2	0
<b>Total Time</b>		<b>14 hours 0 minutes</b>	

Activity Log-Collaborative interaction

Search Records				
Search Criteria		Sort Order	Record	
Start Date	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
End Date	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contact	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Position	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Activity	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tools	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Title	<input type="text" value="smartboard"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Description	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hours	<input type="text" value="&lt;"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Minutes	<input type="text" value="&lt;"/>	<input type="text"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="button" value="Search"/>				

Contact Name	Activity	Title	Hours Spent	Minutes Spent
Robert Pomerleau	Provide Training or Professional Development	SmartBoard and Notebook Software	0	30
Jame Smith	Collaboration	SmartBoard and Notebook software	0	15
Jame Smith	Provide Training or Professional Development	SmartBoard with Math and Notebook Software	0	30
Carrie Rahberg	Planning	Newsletter, Score, SmartBoard data for Davis	4	30
James Forget	Modeling	Movie Maker, SmartBoard, PhotoStory3, QuickTime Video, Movie Player, PowerPoint	3	0
Jame Smith	Creating Learning Material	Algebook exercise for SmartBoard	4	0
Angela Hoopes	Creating Learning Material	Created Gray Scale Tiles for Smartboard	2	0
Angela Hoopes	Creating Learning Material	SmartBoard gallery items for Algebra I	3	30
Carrie Rahberg	Provide Training or Professional Development	Two 1 1/2 hour SmartBoard Notebook Software workshop	3	0
<b>Total Time</b>			<b>21 hours</b>	<b>15 minutes</b>

### Activity Log-SmartBoard tool

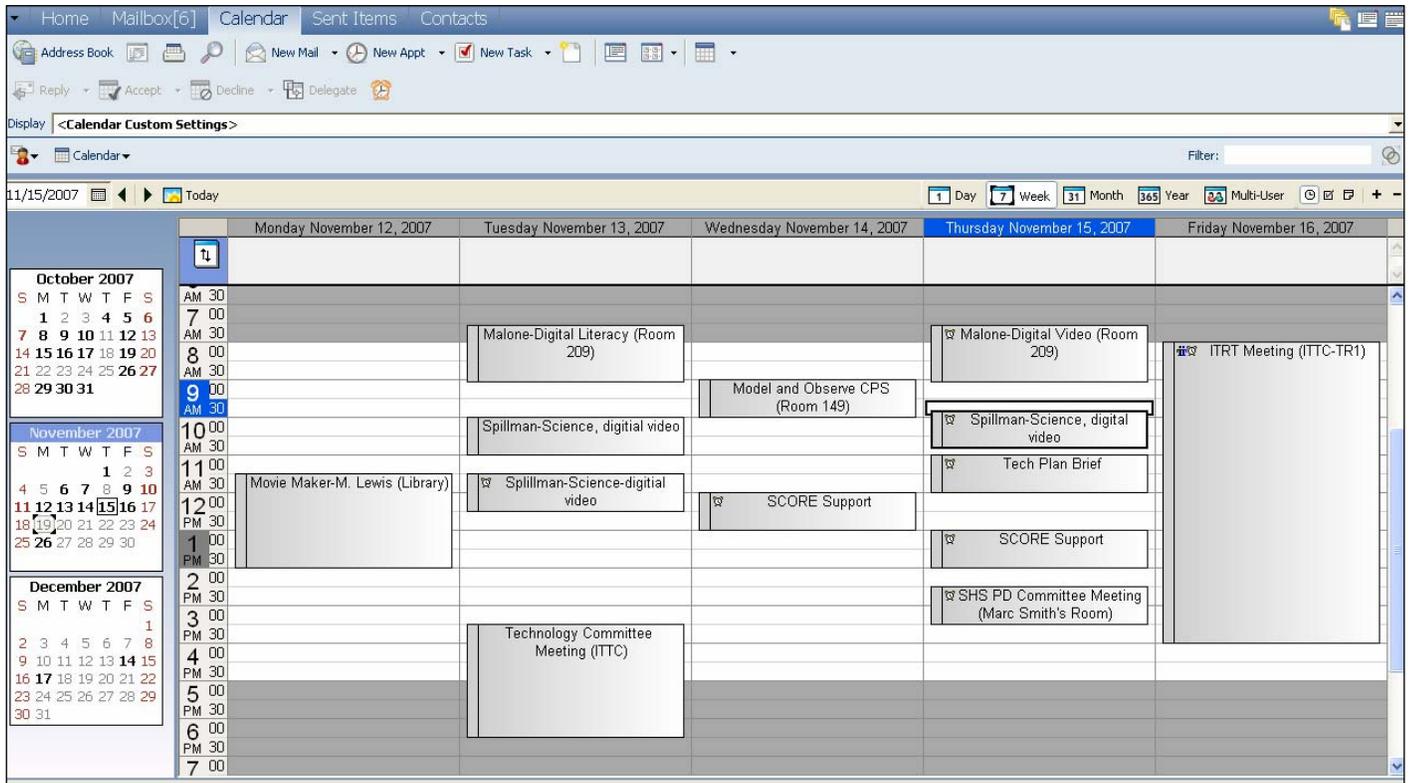
The Director of Instructional Technology may utilize this log as a means of tracking and evaluating individual ITRT's interactions as well as whole team trends throughout the year. In conjunction with the information gained from the Activity Log, the GroupWise calendar documents how the ITRT has worked on a daily basis.

### Example ITRT Electronic Calendar & Daily Schedule

The screen shot of an ITRT's daily work schedule and electronic calendar appears on the following page. The schedules are primarily determined by the professional development contract and teachers who request appointments with their ITRT. The ITRT keeps his/her schedule electronically and is responsible for communicating his/her schedule with the school leadership, the Directory of Instructional Technology, and designated members of the school leadership team. Since ITRTs are central-office supervised, the electronic calendar can be shared with the Director, the principal and designees who can check where the ITRT is and what the ITRT is doing on a daily basis by checking the calendar via the school division's calendar proxy feature located in the email system. ITRTs also know to email leadership when they will be out of the building.

### The Summative Evaluation

A Summative Evaluation is available for use in evaluating an ITRT's performance. The summative evaluation is located in Appendix C. ITRTs identify the goals and specific teachers with whom they will work so that they can use collected data to measure the progress that they make in supporting a change in practice for the identified teachers. The Director uses a mixed method approach in analyzing the professional development work of ITRTs as individuals and as a whole team.



### **Measuring the impact of the SCS ITRT program**

Since Virginia is the first state to adopt an SOQ that recommends one ITRT per 1,000 students, there is currently a great deal of attention being paid to the cost of implementing the ITRT program and its impact on student achievement. According to a survey that was published by the Virginia Department of Education, Office of Education Technology regarding the first year of the program, gains in SOL test scores were associated with the work of ITRTs.

Since the stated goal of the SCS ITRT program is improved teaching and learning, the evaluation plan designed for this team's work must go beyond student test scores. In addition, the SCS ITRT team and its leadership recognize that there are other school division efforts in place that also influence student test scores and therefore, it is not accurate to base the evaluation of the ITRT team's work solely on student achievement scores. The evaluation plan currently includes the social and emotional aspect of teaching and learning that are essential for long term change and improvement in the way teachers and students learn.

Since the fundamental tenet supporting the ITRT program focuses on building trust with teachers, establishing strong relationships with colleagues, and collaborating with all stakeholders in an effort to build positive, productive learning environments for students, the evaluation of the SCS ITRT program includes the long term indicators of improved teaching and learning which measure changes in the way teachers think and what they do on the job.

The research on change starts with building peer relationships and creating momentum and synergy throughout a school division. So far, the SCS ITRTs have proven themselves as key players in a positive change process over the last three years.

By publishing this handbook and our strategies for measuring the team's impact on professional growth for teachers, perhaps the stated goals of No Child Left Behind as well as the goals of the Virginia ITRT initiative can be realized more fully.

Even those who first envisioned the role of the ITRT would be gratified and surprised at how pivotal the ITRT has become in leading technology integration, collaboration, instruction, and change in this school division and within our educational community at large.

It is the hope of the SCS ITRT team that by sharing what we know so far about 'what works' in our school division, the role of the ITRT will grow as their work is better understood and their accomplishments manifest themselves in hundreds of classrooms across the Commonwealth of Virginia.

Appendix A  
Sample Professional Development Contract  
Elementary School

## ***Contract for Principal and ITRT***

My goal as an ITRT at Fiction Elementary School is to enhance student learning and engagement through appropriate use of technology integration within the classroom and lab environments. The goal of the school which I will support is to have a pass rate of 77% in Reading and 75% in Math to meet AYP standards.

### **Technology goals include:**

- Focus on integration with SWD, ECD and ELL population
  - Pass rate for ECD last year was 65.8 in Reading and 68.5 in Math. The lowest pass rate for these students was in third grade, so efforts will be focused especially at the fourth grade level.
  - Pass rate for SWD last year overall in Reading was 47.9 and in Math 54.2. The lowest pass rates were in third and fourth grade in 2007. Therefore extra effort will be focused on fourth and fifth grades with identified students. Collaboration with Special Education teachers and regular education teachers in the inclusive environment
  - Smartboard lessons, web resources, CPS reviews will be created shared and used to focus on areas to address pass rates
- Use of computer lab and laptops to reinforce, remediate, and extend curriculum
- Introduce faculty to SCORE for communication
- Promote digital literacy through daily work with students

### **Ideas for Integration include:**

- Use of Laptops, SmartBoards, Computer Performance System, digital microscope, digital photography
- Use of ITRT website for resources
- Use of online manipulatives and math software
- Use of online resources to promote problem-based learning
- Use of existing software: Kidspiration, Excel, Inspiration, PowerPoint, Desktop Publishing, PhotoStory 3, Movie Maker
- Work with NCS Mentor with fifth grade to perfect the writing process
- Modeling of laptop use in a collaborative environment

### **Professional Development to include:**

- Work with SOLO and Litassess
- Using data to drive instructional practices
- SmartBoard and developing lessons using Smart Notebook
- Use of United Streaming concentrating on resources such as the teacher's guide, new search features, etc.
- Support IGPRO contacts
- Provide job embedded staff development
- Work with teachers on their SCORE sites
- Working with setting up and sharing repositories for resources
- CPS

### **Daily Goals to include:**

- Communicate with the Sysop and Tech to meet building needs
- Network with Math Specialist, ELL instructor, Special Education teachers and Media Specialist to support school needs
- Daily interactions with teachers to talk about formative data collected
- Provide teachers with resources for review, introduction, practice, and extension to address formative data collected
- Attend grade level meetings regularly
- Model SmartBoard lessons and the use of CPS at each grade level
- Locate online resources for use with SWD, ECD, and ELL students to meet their needs
- Support VGLA efforts
- Provide sites to use for remediation and centers
- Meet with the principal to update him on how the needs of the school and its students are being addressed using technology
- Use data to drive instructional decisions

**Measurable Goals:**

- I will work with all fifth grade teachers with NCS Mentor to improve Reading SOL
- I will meet with grades 3-5 monthly to provide resources to address SOL targeted skills.
- I will work with all fourth grade teachers using the Smartboard to enhance SOL targeted skills.
- I will work with all 1<sup>st</sup> grade teachers using the Smartboard to reinforce math and LA concepts.
- I will work with all fifth grade teachers on using SCORE to keep parents informed and to provide extra practice sites for SOL.

\_\_\_\_\_  
ITRT

\_\_\_\_\_  
Date

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Date

Appendix B  
Sample Spotsylvania County Schools Curriculum Map



Nine Weeks	Content and Essential Questions	Skills	Suggested Assessments/Resources
<p><b>1 st Nine Weeks</b></p>	<p>NUMBER AND NUMBER SENSE: Fractions, decimals, percents, and scientific notation {M7.1}</p> <p>Numeration {M7.2}</p> <p>Number Theory {M7.3}</p>	<p>NUMBER AND NUMBER SENSE:</p> <ul style="list-style-type: none"> <li>• Represent a number in fraction, decimal, and percent forms. Fractions will have denominators of 12 or less.</li> <li>• Convert equivalent relationships of fractions, decimals, and percents.</li> <li>• Compare, order, and determine equivalent relationships among fractions, decimals and percents using concrete materials, pictorial representations, and abstract symbol notation. (Decimals are limited to the thousandths place, and percents are limited to the tenths place.)</li> <li>• Order no more than five numbers written as fractions, decimals, percents, and numbers larger than 10 written in scientific notation in ascending (least to greatest) or descending (greatest to least) order.</li> <li>• Write a number greater than 10 in scientific notation.</li> <li>• Compare, order, and determine equivalent relationships between numbers larger than 10 written in scientific notation.</li> <li>• Compare very large numbers using scientific notation.</li> <li>• Simplify expressions by using the order of operations in a demonstrated step-by-step approach.</li> </ul>	<p>Give a written explanation of scientific notation.</p> <p>Design and create a board game to include each mathematical property and two numerical examples of each property.</p> <p>Create a property booklet, poster, or PowerPoint presentation which defines each property. State a symbolic and numerical example of each.</p> <p>Explain how integers are applied in real-life situations.</p> <p>Explain and describe algebraic terms.</p> <p>Create a match-memory game in which one card has the verbal phrase and another has an algebraic expression.</p> <p><i><b>Connected Mathematics Program (CMP)</b></i></p>

Appendix C  
Sample ITRT Summative Evaluation

**SPOTSYLVANIA COUNTY SCHOOL DIVISION  
SUMMATIVE EVALUATION FORM  
ITRT**

EVALUATEE \_\_\_\_\_ POSITION ITRT LOCATION \_\_\_\_\_  
 OBSERVER \_\_\_\_\_ YEAR \_\_\_\_\_ STATUS P NP TIER LEVEL I II III  
 DATE OF OBSERVATION Summative TIME \_\_\_\_\_ CLASS/PERIOD \_\_\_\_\_ GRADE LEVEL \_\_\_\_\_

**DEFINITION OF RATINGS**

- Outstanding** Performance in this area is *consistently outstanding*. Practices are demonstrated at the *highest level of performance*. The evaluatee continuously seeks to expand the scope of personal and professional qualities and constantly undertakes additional, appropriate responsibilities.
- Strong** Performance in this area is *frequently high*. Some practices are demonstrated at a high level while others are at a consistently adequate acceptable level. The evaluatee sometimes seeks to expand the scope of personal and professional qualities and often undertakes additional, appropriate responsibilities.
- Competent** Performance in this area is *generally effective* and practices are demonstrated at an acceptable level. The evaluatee maintains an adequate scope of personal and professional qualities and performs additional responsibilities as assigned.
- Needs Improvement** Performance in this area *requires* improvement to attain a minimum level of competency. Practices are not consistency demonstrated at an acceptable level.
- Unsatisfactory** Performance in this area is *ineffective* and requires extensive improvement to attain a minimum level of competency.
- N/O** Not observed

**PERFORMANCE AREAS**

**RATINGS**

PERFORMANCE AREAS	O	S	C	N	U	N/O
<b>I. PLANNING AND PREPARATION</b>						
A. Demonstrates knowledge and understanding of curriculum, technology initiatives, materials and resources in the school and school division to support the integration of technology to enhance instruction.	<input type="checkbox"/>					
B. Provides assistance to staff in the preparation, modifications of lessons, evaluation procedures, and other materials designed to instruct students and improve the integration of technology in the classroom.	<input type="checkbox"/>					
C. Adjusts plans to meet the needs and interests of the student/teachers.	<input type="checkbox"/>					
D. Evaluates teacher learning by analyzing data in calendar and in log.	<input type="checkbox"/>					
<b>II. DELIVERY OF SERVICES</b>						
A. Serves as a liaison between the Office of Instructional Technology and the school and/or staff.	<input type="checkbox"/>					
B. Maintains an appropriate professional and consistent approach in working with identified teachers, colleagues, and staff which is conducive to supporting improved teaching and learning through the use of technology.	<input type="checkbox"/>					
C. Provides the guidance, motivation, and resources for teachers to use technology.	<input type="checkbox"/>					
D. Offers ongoing assistance and follow up to teachers and staff.	<input type="checkbox"/>					
E. Promotes technology integration for communication, productivity, and improves teaching and learning.	<input type="checkbox"/>					

F. Performs other duties as assigned by the Director of Instructional Technology to facilitate the educational process.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
G. Designs and delivers professional development plans based on school, division, and state goals in a variety of modalities to meet the needs of teachers.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
<b>III. PROFESSIONALISM</b>	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
A. Demonstrates professionalism	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
B. Accepts constructive suggestions	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
C. Consistently maintains poise, exemplar interpersonal skills and self-control.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
D. Supports and follows school and division policies and procedures	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
E. Accepts responsibility for roles in school improvement goals and activities	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
F. Follow through on commitment as identified in contract and with team.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
G. Uses a variety of professional staff development and school inservice programs to enhance performance.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
H. Uses current research practice and content knowledge gained by reading, attending workshops/conferences, and/or taking college/university course(s).	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
<b>IV. COMMUNICATION AND COLLABORATION</b>	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
A. Uses effective verbal, nonverbal, and media communication techniques to foster positive interactions in the school and public communities.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
B. Establishes and maintains good working relationship with school-level administrators, Instructional Supervisors, and ITRT colleagues by providing proactive communication regarding the teachers' professional development progress.						
1) School-level Administrators	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
2) Instructional Supervisors	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
3) ITRT Colleagues	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
C. Works collaboratively with staff, families, and community resources to support the success of a diverse teacher and student population.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
D. Collaborates with grade level ITRT team and across the entire ITRT team.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
E. Uses effective interpersonal skills in planning daily work as a technology integration professional developer.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
F. Plans and collaborates with Administrative Staff.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
G. Shares instructional ideas with colleagues.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
<b>V. ACCOUNTABILITY</b>	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
A. Maintains accurate records and promptly returns reports.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
B. Maintains good attendance and reports to work by the required reporting time.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
C. Addresses appointments, meetings and deadlines in a timely manner.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
D. Provides data indicating alignment between work activities and professional contract.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
E. Follow through on commitment as identified in contract and with team.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
F. Promptly answers email.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
G. Functions as an active and supportive team member.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>

H. Assumes responsibility for professional growth by following through on stated goals.	<b>O</b> <input type="checkbox"/>	<b>S</b> <input type="checkbox"/>	<b>C</b> <input type="checkbox"/>	<b>N</b> <input type="checkbox"/>	<b>U</b> <input type="checkbox"/>	<b>N/O</b> <input type="checkbox"/>
---	--------------------------------------	--------------------------------------	--------------------------------------	--------------------------------------	--------------------------------------	--

COMMENTS:

Recommended for re-employment  
employment

Not recommended for re-

Recommended with an Intensive Support Plan  
requirements for licensure

Has not met

		Professional Status			
Current Status	Tier	<input type="checkbox"/> I	<input type="checkbox"/> II	<input type="checkbox"/> III	
Recommended Status for Next Cycle	Tier	<input type="checkbox"/> I	<input type="checkbox"/> II	<input type="checkbox"/> III	

Signature of Evaluatee \_\_\_\_\_  
\_\_\_\_\_

Date

Signature of Evaluator \_\_\_\_\_  
Date \_\_\_\_\_

Note: Evaluatee's signature indicates knowledge and discussion of the contents. It does not necessarily indicate agreement with the findings. Evaluatee may respond in writing within five (5) working days, and comments will be attached to their form and become a part of the evaluatee's personal file.

Cc: personnel file

## Glossary of Spotsylvania County Schools Terms

**AESOP:** Spotsylvania County Schools' online absence reporting program

**CARE:** A plan to ensure that each school is provided with the support needed to reach the goals established in Spotsylvania County Schools' *FOCUS* plan and to meet or exceed every expectation of NCLB. CARE is the acronym for Conversations About Reaching Excellence. Visit [http://www.spotsylvania.k12.va.us/News/2007-2008/CARE\\_Action\\_Plan.pdf](http://www.spotsylvania.k12.va.us/News/2007-2008/CARE_Action_Plan.pdf) for a description of this plan

**DWPD:** An acronym for Division Wide Professional Development

**FOCUS:** Spotsylvania County Schools' vision for improving student achievement. Visit <http://www.spotsylvania.k12.va.us/News/2006-2007/FOCUS.pdf> for an outline of the plan

**LITASSESS:** An acronym for Literacy Assessment database that manages performance results of literacy assessments that are given to identified students every school year. Performance of each student is available online through LITASSES

**NSTAR:** A federally funded education grant through the Department of the U.S. Navy. The goal of the grant is to promote careers in science, technology, and mathematics by engaging students in authentic project-based learning experiences.

**PLC:** An acronym for Professional Learning Community. The term *professional learning community* describes a collegial group of administrators and school staff who are united in their commitment to student learning.

**QUARRY:** The Quarry is the title of Spotsylvania County Schools' data warehouse utilized daily by division and school level leadership.

**SCORE:** An acronym for Spotsylvania County Schools Online Repository for Educators. SCORE provides opportunities for teachers to post course materials, syllabi, and discussion forums. The software supporting SCORE is Angel, LMS.

**SOL:** The Standards of Learning for Virginia Public Schools describe the commonwealth's expectations for student learning and achievement in grades K-12 in English, mathematics, science, history/social science, technology, the fine arts, foreign language, health and physical education, and driver education. The standards are available at <http://www.pen.k12.va.us/go/Sols/home.shtml>

**SOLO:** An acronym for Standards of Learning Online. The SOLO database is a teacher data tool that is used for analysis of benchmark and other formative assessments given throughout the school year.

**SOQ:** An acronym for Standards of Quality. The Constitution of Virginia requires the Board of Education to determine and prescribe standards of quality for the public schools of

Virginia, subject to revision only by the General Assembly. These standards are known as the Standards of Quality (SOQ) and form part of the Code of Virginia.

**STEM Clubs:** Grant funded clubs that promote interest and hosts activities in the area of science, technology, engineering, and math.

**VGLA:** The Virginia Grade Level Alternative (VGLA) provides students in grades 3 through 8 whose nature and level of disability prevents them from participating in the regular SOL test(s) with the opportunity to participate in state assessments. It is designed for students who have been taught Virginia's Standards of Learning at grade level, but are unable to demonstrate individual achievement on the regular SOL test(s) even with accommodations.

**Virginia Technology Standards for Instructional Personnel (TSIPS):** State required technology competencies that all licensed teachers must complete during their first year of contractual teaching in Virginia.

## References and Recommended Readings

- Bandura, A. (1971). *Psychological modeling*. Chicago: Atherton.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.
- Beavers, D. (2001). Professional Development: Outside the workshop box. *Principal Leadership*, 1(9), 43-46.
- Becker, H. J. (2001, April). *How are teachers using computers in instruction?* Paper presented at the annual meeting of the American Education Research Association, Seattle, WA.
- Becker H., Ravitz, L. (2001, April). *Computer use by teachers: Are Cuban's predictions correct?* Paper presented at the annual meeting of the American Education Research Association, Seattle, WA.
- Brady, C. (2007). Coaches Voices bring six lessons to light. *The Journal of the National Staff Development Council*, 28, 42-45.
- Bruner, J. (1996). *The culture of education*. Harvard University Press. Cambridge, MA.
- Cawelti, G. (1999). Portraits of six benchmark schools. Diverse approaches to improving student achievement. *Education Research Service*.
- Covino, E., Iwanicki, E. (1996). Experienced teachers: Their constructs on effective teaching. *Journal of Professional Evaluation in Education*. 11, 325-363.
- Cradler, J. (2002). *Implementing technology in education: Recent findings from research and evaluation studies*. Far West Laboratory. Available: [Online] <http://www.wested.org/techpolicy/recapproach.html>.
- Cuban, L. (2001). *Why are most teachers infrequent and restrained users of computers in their classrooms?* In J. Woodward & L. Cuban (Eds.), *Technology, curriculum, and professional development*. 121-137. Thousand Oaks, California: Corwin Press, Inc.
- Darling-Hammond L., MacLaughlin, M. (1995). Policies that support professional development in an era of reform. *Phi Delta Kappan*, 76(8), 597-604.
- Defour, R. Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. Bloomington, IN: National Educational Service.
- DeMary, J. L. (2004, June). *Guidance for instructional technology resource teacher and technology support positions*. Superintendents Memo No. 5. June 18, 2004.
- Dewey, J. (1910). *How We Think*. Minnesota, New York: Dover. (1997 reprinting)
- Dewey, J. (1916). *Democracy and Education*. New York: The MacMillan Company.

- Dwyer, D. (1996). *The imperative to change our schools*. In C. Fisher, D., Dwyer, D., Yocam, K. (Eds), *Educational technology: Reflections on computing in classrooms*. San Francisco, CA: Jossey-Bass.
- Dwyer, D., Ringstaff, C., Sandholtz, J. (1991). Changes in teachers' beliefs and practices in technology-rich classrooms. *Educational Leadership*, 48(8), 45-52.
- Educational Technology Plan for Virginia. (2003) [Online] Available: <http://www.pen.k12.va.us/>
- Ertmer, P.A. (1999). Addressing first-and second-order barriers to change: Strategies for technology integration. *Educational Technology Research and Development*, 47(4), 47-61.
- Farenga S.J., Joyce, B.A. (2001). Hardware versus brainware: Where is technology being invested? *Journal of Technology and Teacher Education*, 9(3), 313-319.
- Fast Response Survey System (FRSS). (2003). *Internet Access in U.S. Public Schools, fall 2002*. Washington, D.C.; U.S. Department of Education. National Center for Education Statistics.
- Florida, R., Kaimal, G., Oblinger D., Blessing, L. (2003, September). How generations X and Y (Millennials) will reshape higher education. [Online] Available: <http://www.stonehill.edu/cs1/sa/Gen%20X%20&%20Y%20Reshaping%20Higher%20Ed.pdf>
- Freidus, H. 1996. *The Co-Construction of professional knowledge*. Paper presented at the Annual Meeting of the American Educational Research Association.
- Fullan, M. G., Hargreaves, A. (1991). *What is worth fighting for? Working together for your school*. Toronto: Ontario Public school Teachers' Federation.
- Gilmore, A. (1995). Turning teachers on to computers: Evaluation of a teacher development program. *Journal of Research on Computing in Education*, 27, 251-269.
- Good T., Brophy, J. (1997). Increasing Teacher Awareness through Observation. Looking into Classrooms.
- Grabe, C., Grabe, M. (1996). *Integrating technology for meaningful learning*. Boston, MA: Houghton Mifflin.
- Guskey, T. (1995). *Professional development in education: In search of the optimal mix*. In Guskey, T & Huberman, M. (Eds). *Professional development in education: New Paradigms and practices*. New York: Teachers College Press.
- Hadley M., Sheingold, K. (1993). Commonalities and distinctive patterns in teachers' integration of computers. *American Journal of Education*. 101, 261-315.

- Hanushek, E. 1971. Teacher characteristics and gains in student achievement: Estimation using micro data. *American Economic Review*, 61 (2) 280-281.
- Howard, B.C., McGee, S., Schwartz, N., & Purcell, S. (2000). The experience of constructivism: Transforming teacher epistemology. *Journal of Research on Computing in Education*, 32(4), 455-465.
- Howe, N., Strauss W. 2000. *Millennials Rising: The Next Generation*. New York: Random House, Inc. (book)
- Jones, B.F. (1998) *Learning with technology: Integrating new technologies into classroom instruction*. Washington D.C: U.S. Department of Education and North Central Regional Education Library.
- Jones, C.A. (2001). Tech support: Preparing teachers to use technology. *Principal Leadership*, 1(9), 35-39.
- Jukes, I., (2005). Understanding Digital Kids (DKs): Teaching and Learning n the New Digital Landscape. *The InfoSavvy Group*. [Online] Available: <http://www.thecommittedsardine.net/infosavvy/education/handouts/ndl.pdf>
- Killion, J. Harrison, C. (1997). Multiples Roles of Staff Developers. *Journal of Staff Development* 18 (3).
- Killion, J. Harrison, C. (2007). *Web of support strengthens the effectiveness of school-based coaches*. The Journal of the National Staff Development Council, 28, 42-45.
- Knight, J. (2004). Instructional coaching. *The University of Kansas Center for Research and Learning*. 13 (3).
- Knight, J. (2007). Five key points to building a coaching program. *The Journal of the National Staff Development Council*, 28, 42-45.
- Knowles, M. (1998). *The adult learner*. Texas:Gulf Publishing Company
- Lave, J. Wagner, E. (1991). *Situated Learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.
- Lebruto, D. (2001). A study of intermediate elementary teachers' educational beliefs and teaching practices and the use of technology. *Doctoral dissertation, University of Central Florida, 2001*. Dissertation Abstracts International, 62/01.
- Lenhart, A., Simon, M., Graziano, M. 2001. The Internet and education: *Findings from the Pew Internet and American Life Project*. Retrieved July, 2005 from (website)
- Levin, D., Sousan, A. (2002). *The Digital Disconnect: The Widening Gap between Internet-Savvy Students and their Schools*. 2002. Retrieved July 2005 from (website)
- Lieberman, A. (1995). Practices that support teacher development. *Phi Delta Kappan*, 76(8), 591-596.

- Lyons, C. (2002). Becoming an effective literacy coach: What does it take? In Pinell, G.S., Rogers, E (Eds). (p.93-118). Learning from teaching in literacy education: New perspectives on professional development. Portsmouth, NH. Heinemann.
- McCannon M., Crews, T. (2000). Assessing the technology training needs of elementary school teachers. *Journal of Technology and Teacher Education* (2000) 8(2), 111-121.
- McKenzie, J. (1991). Designing staff development for the information age. FromNowon.org: *The Educational Journal [Online]*, 1(4). Available: <http://www.fromnowon.org/fnoapr91.html>
- Miles, M. B., Saxl, E.R., Lieberman, A. (1988). What skills do educational change agents need? An empirical view. *Curriculum Inquiry*, 18(2), 157-193.
- Miles, M.B. (1993). 40 Years of change in schools: Some personal reflections. *Educational Administration Quarterly*, 29(2), 213-248.
- Moller, G., Pankake, A. (2007). What a teacher leader needs from the principal. *The Journal of the National Staff Development Council*, 28, 42-45.
- National Center for Education Statistics. (2003). *Internet Access in U.S. Public Schools and Classrooms: 1994–2003*. [Online] Available: <http://nces.ed.gov/surveys/frss/publications/2005015/>
- National Education Technology Plan. (2004). [Online] Available: <http://www.ed.gov/about/offices/list/os/technology/plan/2004/index.html>
- National Staff Development Council Standards. (2002). *National Staff Development Council*. [Online] Available: <http://www.nsd.org> .
- Niederhauser, D. S., & Stoddart, T. (2001). Teachers' instructional perspectives and use of educational software. *Teaching and Teacher Education*, 17, 15-31.
- No Child Left Behind Act of 2001, Title II Part D (2001). [Online] Available: <http://www.ed.gov>
- Norton, P., Warrick, W. (2003). Identifying the learning needs of site-based technology resource specialists: a Delphi Study. Available: [Online] <http://mason.gmu.edu/~wwarrick/Portfolio/Products/PDF/delphi03.pdf>
- Ravitz, J. L., Becker, H. J., & Wong, Y. T. (2000). *Constructivist-compatible beliefs and practices among U.S. teachers* (Teaching, Learning, and Computing: 1998 National Survey, Report #4). Centre for Research on Information Technology and Organizations, University of California, Irvine.
- Schrum, L. (1999). Technology professional development for teachers. *Educational Technology Research and Development*, 47(4), 83-90.

- Scwab, R., Foa, J. (2001). Integrating technologies throughout our schools. *Phi Delta Kappan*, 82(8), 620-624.
- Sparks D., Hirsh, S. (1997). *A new vision for staff development*. Alexandria, VA.: Association for Supervision and Curriculum Development.
- Streich, J. (2004). Middle School Teachers' Beliefs about Technology Integration & Instructional Practice. [Online]. Available: <http://mason.gmu.edu/~7Ejstreich/edrsedit14.doc>
- Streich, J. (2007). Instructional Technology Resource Teachers: Ways of Knowing, Ways of Doing. [Online]. Available: <http://proquest.umi.com> or by request of the author.
- Tallerico, M. (2007). 3 Strategies for administrators. *The Journal of the National Staff Development Council*, 28, 42-45.
- U.S. Congress, Office of Technology Assessment. (1995). *Teachers and technology: Making the connection* (OTA-HER-616). Washington, DC: U.S. Government Printing Office.
- Wilson S.M., Ball, D.L. (1996) Helping teachers meet the standards: New challenges for teacher educators. *Elementary School Journal*, 97, 121-138.
- Windschitl, M., Sahl, K. (2002). Tracing teachers' use of technology in a laptop computer school: The interplay of teacher beliefs, social dynamics, and institutional culture. *American Educational Research Journal*, 39(1), 165-205).