

BEST PRACTICES FOR THE INSTRUCTIONAL TECHNOLOGY RESOURCE TEACHER



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Executive Summary

The Virginia Department of Education (VDOE) is committed in the mission of advancing innovative learning by maximizing the potential of all learners through the integration of instructional technology throughout the commonwealth with the preparation of students to participate in a digital society. From the first Technology Plan of Virginia in 1989, to the inclusion of STEM instructional support, to the adoption of individual student devices, to the expansion of broadband in every school, to the establishment of virtual learning, to the approach of digital integration learning standards of learning, the VDOE, General Assembly, and Governor continue to affirm that quality schools require the incorporation of the Instructional Technology Resource Teacher (ITRT). In 2022, the General Assembly reenacted inclusion of the ITRT in the Standard of Quality which reiterates their support of this goal.

In Virginia, the role of the instructional technology resource teacher has changed as the role technology has changed in our schools. While this role starts with a licensed teacher, the ITRT supports student learning with their experience and expertise with curriculum, cooperation with teachers, addressing student needs, and the functionality and utility with multiple technologies in advancing student potential. Although the ITRT serves as a resource to classroom teachers, the ITRT is not a classroom teacher with assigned students. **The ITRT is an innovator-- actively engaged with job embedded professional learning in instructional design, digital learning integration, and adoption of instructional technologies.** With the credibility of a classroom teacher and knowledge of the best practices, the ITRT co-facilitates the design of lessons with the teachers to create deeper learning pathways. It is not the responsibility of the instructional technology resource teacher to evaluate a teacher's performance. The ITRT does, however, work with the teacher to reflect on the effectiveness of a technology-based lesson. Within the school community, there are four roles the ITRT serves which student achievement:

- as a co-educator of students,
- as a coach for teachers,
- as a resource for administrators, and
- as an advocate for digital learning in the community.

While occasional administrative, clerical, and supervisory tasks are unavoidable, the use of the ITRT for duties such as teaching a class, hall supervision, remediation, testing, and monitoring computer laboratories undermines the vision of the Virginia Department of Education's Educational Technology Plan. While ITRTs can be evaluated by a school principal or a central office specialist in instruction or technology, ITRTs should be evaluated using their own evaluation structure that addresses their unique role within a division. The value of the ITRT lies in the flexible ability to serve students, teachers, administrators, and the community in support of the integration of digital learning with instructional technology.

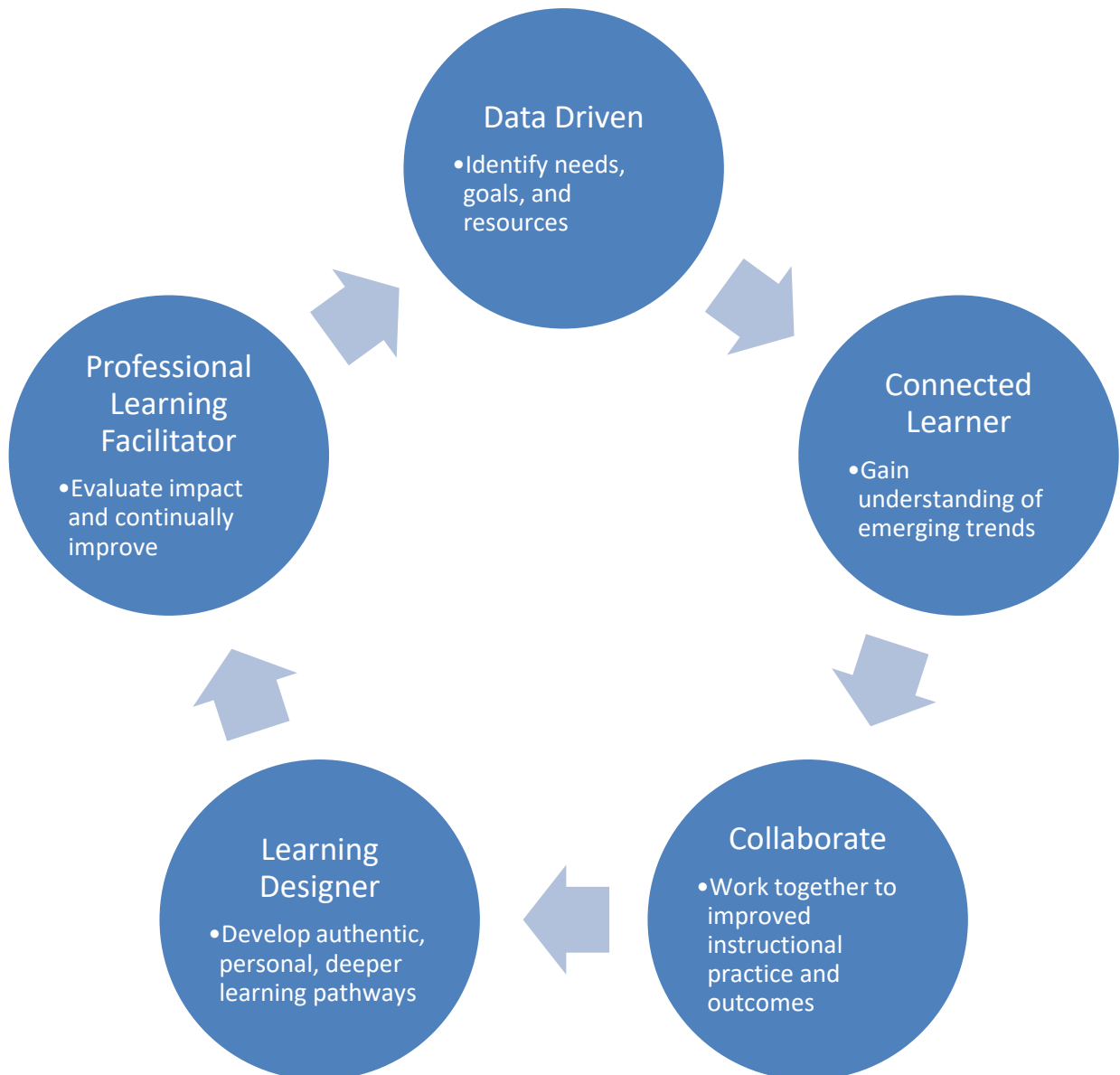
The document

- provides clarity regarding the use of this position in the support of learning,
- defines the role of the ITRT in the preparation of students for their future by promoting deeper learning pathways for all students through the use of instructional technology,
- outlines the scope and structure of the ITRT position as well as the importance of digital learning integration throughout the school day,
- serves as the guide at the school and division levels and will be periodically updated and evaluated for relevance, rigor, and relationship to the VDOE standards and educational technology plan.

The role of instructional technology in learning and instructional practice continues to evolve and improve. The ITRT is the teacher supports our students, educators, leaders, and families with the changes. The VDOE continues to eagerly anticipate the future that will be curated for, and created by, the children in our care.

The Role of the Instructional Technology Resource Teacher

The primary role of the ITRT is collaboration with educators by facilitating professional learning to ensure the integration digital learning throughout the curriculum. The role of the ITRT is unique in that it serves as educator, coach, resource, and advocate. Each of these four roles work together to collaboratively develop the relationship among the ITRT, the students, the teachers and administrators, and the community at large. **Consider the digital learning integration cycle depicted below;** it demonstrates the ITRT's focus is less on the individual troubleshooting and intervention; rather, **the focus should be on creating an environment of self-advocacy and empowerment of all members of the school community** to collaborate in addressing technical difficulties and promoting the digital enhancement of learning.



Examples of duties and responsibilities of the ITRT that build stronger relationships with student learning

Change Agency

- Disseminating information regarding instructional technology resources and emerging technologies
- Advocating for more effective agency through modeling lessons that promote personalized learning
- Facilitating the implementation of best practices in the development and evaluation of instructional technology enhanced learning for the direct purpose of encouraging personalized deeper learning pathways
- Facilitating enrichment opportunities for personal pursuits

Connected Learning

- Co-facilitating learning opportunities that share emerging trends in instructional technology to prepare students for their future
- Creating and modeling resources and activities that promote a greater understanding of computer science in collaboration with classroom teachers
- Providing simple intervention and basic support for difficulties with use and access to instructional technology resources

Collaboration

- Collaborating with classroom teams to provide an environment that facilitates an integrated approach to digital resources that support learning
- Collaborating with classroom teams to promote instructional technology that is integrated in core curriculum and fosters greater understandings of the Virginia Standards of Learning

Learning Design

- Co-facilitating or conducting instructional technology-related lessons and activities.
- Facilitating the effective use of hardware, software, and related resources

Data Driven Decision Making

- Coaching learners in the understanding of the role of data and performance in being advocates for their learning
- Assessing levels of instructional technology use and skills

Digital Citizen Advocacy

- Facilitating student engagement through the curation of resources to be used in direct instruction pursuant to best practices and the digital integration standards addressing digital citizenship
- Developing and curating assessment tools to assist in understanding student comprehension of digital citizenship
- Facilitating the creation and curation of resources to promote student understanding of digital safety and digital identity
- Understanding and communicating the importance of the acceptable use policy. Guidance is available at the Virginia Department of Education's website, keyword Acceptable Internet Use Policy
- Modeling high quality digital citizenship for learners

Examples of duties and responsibilities of the ITRT that build stronger relationships with teachers

Change Agency

- Sharing and facilitating the objectives of the division and state technology plan
- Reflecting with teachers individually about their practice and implementation of instruction.
- Advocating for more effective student agency through the collaborative creation and implementation of lessons that promote personalized learning

Connected Learning

- Disseminating information regarding instructional technology resources, emerging instructional technologies, best practices using instructional technology, and professional development opportunities
- Providing basic, tier one level of technical support for teacher difficulties with use and access to instructional technology resources
- Facilitating the effective and innovative use of hardware, software, and related resources

Collaboration

- Working collaboratively with teachers or groups of teachers to integrate instructional technology into instruction
- Collaborating with teacher teams to provide a collegial environment that facilitates the coaching cycle with an ultimate goal of promoting self-inquiry and improvement of teacher practice

Learning Design

- Assisting with curriculum and content development
- Modeling effective instructional strategies using instructional technology
- Creating and distributing an instructional playbook with the integration of division purchased and supported resources, best practice teaching strategies, and emerging trends in instructional technology integrated curriculum.
- Assisting teachers in selecting, implementing, and evaluating appropriate instructional technology tools to be integrated into the curriculum
- Providing direct support through coaching, training, and professional development in the integration of personalized deeper learning pathways into teacher practice

Professional Learning Facilitation

- Providing direct support through coaching, training, and professional development in the integration of digital resources into teacher practice
- Assisting with high-quality professional development designed to ensure that all instructional personnel are proficient in the use of instructional technology consistent with its comprehensive plan for instructional technology
- Collaborating with teachers to create instructional technology-based learning activities that are integrated into the core curriculum and foster a greater understanding of the Virginia standards through coaching, training, and professional development
- Facilitating professional learning that empowers educators to develop learning opportunities that encourage personalized deeper learning pathways

Data Driven Decision Making

- Assessing levels of teacher instructional technology use and skills
- Coaching teachers in the understanding of the role of data in improving learning

Digital Citizen Advocacy

- Facilitating teacher understanding of digital citizenship through the curation of resources to be used in professional learning and to inform teachers' practice
- Facilitating the collaborative creation and curation of resources to promote understanding of digital safety
- Outlining the importance of the acceptable use policy to ensure applications and student accounts meet digital safety standards and terms of use

Examples of duties and responsibilities of the ITRT that build stronger relationships with administrators

Change Agency

- Supporting implementation of the division and state technology plan
- Facilitating the school-wide instructional technology committee
- Assisting the establishment of a schoolwide vision for high quality teaching and learning

Connected Learning

- Disseminating information regarding instructional technology resources
- Cataloging and record keeping pertaining to the maintenance and integration of digital resources
- Providing basic, tier one level of technical support for administrator difficulties with use and access to instructional technology resources
- Evaluating and recommending hardware, software, and related resources

Collaboration

- Collaborating with leadership teams to promote a school environment that facilitates the coaching cycle with the goal of promoting self-inquiry and improvement of teacher practice

Learning Design

- Advocating for the digital learning and computer science integration with emerging trends in software, curriculum, teaching strategies, and other educational areas
- Supporting administrators' understanding of the Virginia Computer Science standards and how they are integrated into core curriculum

Professional Learning Facilitation

- Assisting with high-quality professional development designed to ensure that all instructional personnel are proficient in the use of instructional technology consistent with its comprehensive plan for instructional technology
- Supporting the evaluation and enhancement of resources and activities that foster a greater understanding of the Virginia standards through coaching, training, and professional development
- Empowering administrators to facilitate professional learning for educators to develop learning opportunities that encourage personalized deeper learning pathways

Data Driven Decision Making

- Facilitating and supporting effective analysis and evaluation of data in improving learning
- Sharing insights into levels of instructional technology use and skills
- Advocating for more effective agency through supporting teacher growth that promote personalized learning

Digital Citizen Advocacy

- Facilitating administrator understanding of digital citizenship, digital safety, and digital identity and its role in school community and safety
- Supporting administrators by staying aware of emerging trends in digital safety
- Supporting the resolution of digital safety issues that affect student learning

Examples of duties and responsibilities of the ITRT that build stronger relationships with families and the school community at large.

Change Agency

- Communicating and facilitating understanding of the division and state technology plan

Connected Learning

- Disseminating information regarding instructional technology resources and emerging technologies
- Supporting the use of hardware, software, and related resources that support student learning at home
- Facilitating collaboration among students and their families with related technologies and software
- Providing basic support for families having difficulty accessing digital and virtual learning resources

Collaboration

- Collaborating with educators to promote a community environment with an ultimate goal of promoting self-inquiry and improvement of learning
- Advocating for effective student agency and a collaborative relationship among children, families, teachers, administrators, through the leveraging of instructional technology resources to promote deeper learning

Learning Design

- Promoting opportunities for community understanding of the Virginia Digital Learning Integration Standards of Learning and how they are integrated into core curriculum
- Facilitating opportunities and curate resources that empower the community to have a greater understanding of personalized deeper learning pathways

Professional Learning Facilitation

- Facilitating or conducting instructional technology-related community events and workshops

Data Driven Decision Making

- Assessing levels of community access and engagement with instructional technology

Digital Citizenship Advocacy

- Assisting in communication with the community to increase understanding of digital citizenship, digital safety, digital identity and its role in school community and safety
- Informing student families of the acceptable use policy and related expectations for usage of division instructional technology and digital resources; guidance is available at the Virginia Department of Education's website, keyword Acceptable Internet Use Policy
- Providing families best practices for protecting children online and safeguarding their digital identity
- Promoting opportunities and inform families of challenges related to online safety for children

Supporting the ITRT

The Instructional Technology Resource Teacher (ITRT) may be supervised and evaluated by a combination of school division instructional technology leader and assigned building principal. It is important the direct manager who will task the ITRT is an administrator that has knowledge of the Virginia Educational Technology Plan, the school division's educational technology infrastructure and resources, and professional learning structures. The ITRT should also work with content supervisors or specialists to use existing data to identify areas of deficiency in which instructional technology will grow student achievement. The ITRT should collaborate with all instructional technology leaders to determine effective technologies to address areas of improvement. The teacher evaluation is the foundation of an ITRT's evaluation; however, additional areas of evaluation could include the following:

- Professional Learning Facilitator
 - physical space management
 - preparation
 - presentations
 - reflection
 - record keeping
 - scheduling
- Learning Designer
 - instructional collaboration
 - management of playbooks
 - knowledge of division resources
 - supporting division initiatives
- Connected Learner
 - flexibility
 - data driven
 - complete coaching cycles
 - coaching documentation
 - strategies related to instructional technology
- Data Driven Decision Maker
 - continuous improvement
 - professional efficiency
 - researching trend
 - data driven decisions
- Collaborator
 - foster confidentiality, trust, and respect
 - effective interactions and communication
 - collaboration and partnerships
- Change Agent
 - collaboration with subject directors
 - advocacy for policy, digital safety, and instructional technology
 - whole community decision-making and vision
- Digital Citizen Advocate
 - communication
 - knowledgeable

Example Job Description

Core Responsibilities

Classroom Teaching and Support

- Works collaboratively with individual teachers or groups of teachers on the integration of technology into classroom instruction

Professional Learning

- Disseminates information regarding instructional technology resources, emerging technologies, best practices using technology and professional development opportunities as aligned to the Virginia Department of Education Standards of Learning and Curriculum Framework
- Promotes model instructional practices and the appropriate role of technology in the teaching / learning process
- Prepares and conducts instructional technology-related professional development and training for school staff

Curriculum Development

- Assists with curriculum development as it relates to instructional technology
- Creates learning resources for teachers, staff, and students

Technology Planning and Leadership

- Researches the use of newer technologies in instruction, including learning management platforms, software, hardware, and assistive technology
- Serves as a member of the school and division leadership committees
- Supports the implementation of the division's technology plan
- Identifies trends in software, curriculum, teaching strategies, and other educational areas
- Supports and models innovation as a core responsibility supporting initiatives to pilot and evaluate new technologies

Digital Resource Management

- Participates in the evaluation and selection of software and assists with the implementation of new instructional technology applications, software, learning management systems, websites, and cloud-based technologies
- Serves as a strong advocate for technology integration

Technology Support

- Supports the IT department in tier one troubleshooting instructional technology issues in the schools

Professionalism

- Performs related duties as assigned by school administration and/ or the Director of Technology in accordance with the school/system policies and practices
- Models non-discriminatory practices in all activities

Possible Additional Responsibilities

Classroom Teaching and Support

- Supports instructional technology integration in online courses using the Division's Learning Management System (LMS)
- Models effective teaching to students in the appropriate use of instructional technology in the classrooms and/or computer labs
- Models and promotes digital citizenship by facilitating safe, healthy, legal, and ethical use of digital information and technologies

Professional Learning

- Coaches and teachers model the use of online and blended learning, digital content, and collaborative learning networks to support and extend student learning as well as expand opportunities for online professional development for teachers and administrators
- Meets with other division technology and instructional support personnel to plan division-wide professional development to serve all schools
- Assesses levels of teacher and student instructional technology use and skills/needs before planning, developing, and implementing training materials and sessions
- Provides training for staff in the use of database applications
- Coaches and assists the teachers and staff assigned to the school in integrating school-based applications in their lessons
- Identifies technology integration competencies among instructional staff, in collaboration with school administrators, and delivers appropriate coaching, training, and resources to support the professional growth of individuals

Curriculum Development

- Uses data to design technology-based instructional strategies
- Works with appropriate division or school-based curriculum and technology staff to help school staff in integrating technology into the curriculum

Data and Assessment

- Supports continuous improvement by assisting with data analytics of computer-based instructional and assessment programs
- Assists School Testing Coordinators and Division Director of Testing with SOL administration and other school-wide assessments, including online assessment training for teachers and staff
- Documents and reports on the effectiveness of current instructional technology use at the assigned schools

Technology Planning and Leadership

- Provides support to school staff and administration on the application and evolution of various hardware and software packages, analyzes program data, and makes recommendations about their effectiveness
- Uses data to design technology-based instructional strategies

Digital Resource Management

- Coordinates the use of software applications to meet school and division instructional goals with the leader of the technology support team
- Maintains a rich library of curriculum-driven support materials and technology-enhanced resources for grade levels and subject areas for teachers
- Provides support for software programs available in the division

Professionalism

- Maintains licensure at the state and/or national level; assumes responsibility for professional growth and keeps materials, supplies, and skills up to date
- Assumes responsibility for professional growth and keeps skills up to date
- Cooperates with other staff members in promoting effective communication throughout the division
- Takes all necessary and reasonable precautions to protect students, equipment, materials, and facilities
- Maintains professional competence by attending staff development programs, curriculum development meetings and other professional activities
- Participates in various student and parent activities which occur in school including PTA, student clubs and after-school activities
- Complies with and supports school and division regulations and policies

Example Duties of the ITRT and the Technician

The Instructional Technology Resource Teacher (ITRT) assists with troubleshooting only when the problem is minor and hindering a lesson with which they are involved. When a teacher has a technical issue, the ITRT should spend no more than ten minutes attempting to solve the issue; if progress cannot be made in that time, the ITRT directs the teacher to report the technical issue to technology support personnel. In addition, the ITRT is not required to perform basic maintenance, oversee the technology inventory, or replace outdated technology. The focus of the ITRT should be on creating an environment of self-advocacy and empowerment for all members of the school community.

The following chart designed for distribution to teachers shows examples of the ways the ITRT and Technology Support Roles may be divided.

Instructional Technology Resource Teacher (ITRT)	Both ITRT and TS	Technical Support (TS)
I would like to use my interactive board or other hardware for instruction.	My projector is not working properly.	My projector or laptop is definitely broken.
I need to learn more about how to use instructional technology in my lessons.	I need to learn more about how to troubleshoot my computer.	I need to have software installed on my computer.
I need to learn the best way to install and use different types of hardware.	I need to learn ways to keep my hardware from breaking.	I need help connecting hardware.
I need to learn more about the learning management system, application, or another resource.		I need my classroom technology to be updated.
I need to learn more about digital citizenship.	I need to learn ways to keep my computer and resources secure.	
	I can't remember how to log in to something.	I can't remember my password.
	I can't remember which resource I use to complete a certain task.	
	I need batteries, headphones, or other supply.	
I would like someone to co-teach with me to try something new.		
I need to learn more about how to engage students in my lesson.		
I need to learn more about addressing the standards in my instruction and assessment.		
I need to learn more about how to personalize the learning of my students.		

Acknowledgements

Dr. Matt Caratachea, Coordinator of Technology Integration and Innovation, Goochland County Public Schools

Dr. Sean Coffron, Instructional Technology Resource Teacher, Manassas City Public Schools

Tina Coffey, Instructional Technology Resource Teacher, Roanoke County Schools

Emily Dillard, Director of Instructional Technology, Alexandria City Public Schools

Emily Horne, Division Instructional Technology Supervisor, Fredericksburg City Public Schools

Tina Ference, Educational Technology Leader, Fauquier County Public Schools

Mike Henrickson, Supervisor of Educational Technology, Loudoun County Public Schools

Dr. Larry Shifflett, Assistant Superintendent of Innovation and Learning, Rockingham County Public Schools

Joshua Thom, Educational Technology Facilitation Specialist, Loudoun County Public Schools

Kley Todd, Assistant Director for Technology Integration, Albemarle County Public Schools

David Wood, District Instructional Technology Resource Teacher, Norfolk Public Schools

Calypso Gilstrap, Instructional Technology Specialist, Virginia Department of Education

Dr. John Hendron, Project Manager of Professional Learning & Organization Development, Virginia Department of Education

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