

TECHNOLOGY TIPS TECHNOLOGY TIPS TECHNOLOGY TIPS

The Power of Student Learning Through Leading

When students become the technology leaders in their schools, they help teachers and peers while learning about leadership.

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Imagine a disconnected middle school student who becomes engaged when given the opportunity to select the medium and method for her own learning. This is exactly what happened at Lynch Literacy Academy in Amsterdam, NY, when Denise Krohn assumed the role of New York State Student Technology Leader (NYSSTL) adviser in her building and introduced the TechYES and GenYes Program to her middle school students.

The NYSSTL Program was designed to develop student leadership through technology. The NYSSTL Program is based on the proven technology integration model of GenYes and is a means to enable student technology leaders to provide technology support to teachers. TechYES, a program of the Generation YES Corporation, certifies that every participating middle school student is technology literate upon completion of two vetted technology projects. Mentored by their teachers and peers, students in TechYes are able to demonstrate their technology proficiency in a variety of formats. In Krohn's class, some students wrote and recorded songs; one created a brochure for a family business; and a particularly challenged student, who was excited to participate and be productive, designed and printed a T-shirt. All the students learned to use high-end software to complete those projects. The diverse projects are just a few of the ways that students are demonstrating their technology literacy in middle schools throughout upstate New York.

Through the federally funded education technology program Enhancing Education Through Technology (EETT), the New York State Education Department has developed an educational program to tap into the

pool of students' talent and experiences in technology and to channel students' energy and resources to support effective use of technology for teaching and learning. As a lead agency in this grant consortium, the Hamilton-Fulton-Montgomery Board of Cooperative Education Services (BOCES), along with its partner, the Washington-Saratoga-Warren-Hamilton-Essex BOCES, is dedicated to changing the landscape of technology use in schools through a student technology leadership program. This initiative is funded in part by a multi-year EETT grant. More than 45 school districts are involved as this project enters its second school year.

The foundation of this work relies on grant-funded and school district-approved school technology clubs that integrate the national TechYES and GenYES models of student-centered technology support and afford students opportunities to apply 21st century skills.

Student Technology Leaders

To get started, the grant coordinators in each district identified a group of students to serve as technology leaders and spearhead the creation of technology clubs. They specifically sought students who had a love of technology and the potential to be school leaders, roles that they might not otherwise play in their buildings. Those students learned how to assume responsibility for the NYSSTL clubs' development at student technology leader trainings that take place during summer or on Saturdays.

The objectives of the student technology leader trainings are to help students gain leadership, collaborative, problem-solving, and communication skills. Students role-play (a favorite part to play is the technology-phobic

teacher), complete technology projects, and learn how to evaluate technology projects. While at the training, students create marketing materials and discuss how to recruit other students to join the club back in their school districts. Over time, students become familiar with both the GenYES and the TechYES programs. The GenYES program prepares students to provide quality support to teachers in the form of helping them learn technology skills as well as prepare resources for their classes. TechYES resources give student technology leaders the knowledge and the structure they need to help all the other students in the school complete two substantial projects to show that they are technology literate as well as assess whether the projects show mastery of national technology standards.

Programs for Student Technology Leaders

Wheelerville Union Free School District Superintendent David Carr said, “The NYSSTL program, specifically TechYES and GenYES, are excellent programs that do a lot more than help students become familiar with incessantly developing technology. The training students receive in these programs provides extraordinary leadership skills and opportunities. Students learn how to work with and lead their peers; they learn how to work with and support their teachers and other adults. The experiences they enjoy support 21st century skills, build character and self-confidence, and provide an avenue and medium through which they can excel.”

Technology Projects

The TechYes program provides guidelines and a Web portal for technology

projects. Student technology leaders serve as mentors for other students while they complete their projects. Many projects are completed during classes as part of the standards-based instruction, allowing students to see the link between their academic learning and technology. Self, peer, and teacher reviews of projects allow for dialogue and collaboration. Middle school students use the Web regularly to build networks beyond classroom walls and to form communities around their passions and talents (Richardson, 2006; Wallis & Steptoe, 2006). Those students are enthusiastically communicating and creatively producing—qualities that the NYSSTL program transfers to the school learning experience for participating students.

In the middle adolescent years, students need to see that their learning with technology is real, rich, and relevant (March, 2006). Today’s K–12 students have advanced technology skills and must be equitably involved in seeing how best to use that technology in their learning and future career planning. TechYes provides an opportunity for students to learn by using modern technologies to produce real and relevant projects. Constructivist project-based learning is a proven method for students to learn and practice 21st century skills.

NYSSTL participation at the middle level through the TechYES program ensures that students are technologically literate before entering high school. This is necessary to make certain that students have technology competency not only during their remaining formal education but also during their work and lives. It is also a powerful and proven way to meet the technology literacy mandate in



About Generation Yes

The Generation YES Corporation (www.genyes.com) was founded to sustain and disseminate a model developed over a five-year U.S. Department of Education Technology Innovation Challenge Grant (1996–2001). The GenYES model is supported by 13 years of evidence-based research. This model hinges upon methodologies and curriculum that enable students in grades 3–12 to provide quality technology support to teachers (professional development), peers (technology literacy), and IT staff members (infrastructure support).

Growing Student Leaders: Sample Summer Camp Agenda

DAY	ACTIVITY
1	Introductions, collaboration and team-building activity
	Introduction to NYSSTL, discussion regarding objectives
	Students define student technology leader and review NYSSTL member handbook
	Introduction to TechYES (student guide, sample projects, Web site)
	Assigning and planning the TechYES project
2	Tutoring activities (including role-playing and problem solving)
	TechYES project work time
3	Introduction to GenYES – helping adults in your school
	Create online NYSSTL student accounts
	Role-playing (student-teacher collaboration)
	Constructivist learning
	Practice helping teachers
4	Discuss NYSSTL timeline and activities for the school year
	Students break into groups to plan NYSSTL assembly and recruiting activities at their schools (creating posters, skits, presentations, etc.)
	Work on TechYES projects
5	Finish up TechYES project and complete student portion of evaluation form
	Sample TechYES project assessment demonstration
	Assessment by adult of a student volunteer’s project
	Students pair up to assess projects and complete peer mentor section of evaluation
	Students debrief about the assessment process and make any necessary improvements to their projects while adults complete the advisor evaluation section
	Presentation of certificates

the No Child Left Behind Act. The NYSSTL program will expand to high schools in all 45 districts starting in September 2010 and elementary schools in September 2011. The high and elementary school versions will emphasize the GenYES program, in which students help teachers create technology-based lessons and support technology use in classrooms.

The NYSSTL project is built upon research that suggests that effective professional development (GenYes) and project-based technology literacy assessment (TechYes) can be accomplished with strong student-centered strategies (Northwest Regional Educational Laboratory, 2007). As a second arm of the program, student technology leaders partner with teachers and work on technology projects together. Reaching the critical mass of student technology leaders is key to changing the system: for this approach to be powerful, there must be a large number of students who have been trained to help teachers infuse technology into the curriculum. Those GenYES students can support any technology use in a school and provide teachers with training, support, and mentoring. This just-in-time student support employs best practices—embedded, on-site, and long-term—of professional development.

The importance of technology in society and to students’ futures has never been greater. By offering a technology leadership club (NYSSTL), each participating school provides a more comprehensive and

supportive technology environment. The skills that the students learn meet the high school National Educational Technology Standards for Students set out by the International Society for Technology in Education. The NYSSTL program provides an environment in which students accept responsibility for their own learning as well as take on a major role in technology literacy and technology support for teachers.

As the grant continues to expand, the grant oversight team is developing a toolkit that will be used as a cost-effective means of duplicating the model across New York State. Students are the majority of a school building's population and are often seen as the group with the most technology expertise. NYSSTL is a proven and viable strategy that enables students to become leaders in fostering systemic change through technology infusion and innovation. **PL**

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