New York State Education Department

Title IID:
Enhancing Education Through Technology

Final Evaluation Report 2011-12

For

Madison-Oneida BOCES

Project Code: 0291-10-0000

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EXECUTIVE SUMMARY

The Madison-Oneida BOCES and the Mohawk Regional Information Center (MORIC) partnered with three high need local education agencies, forty-seven other local educational agencies, four BOCES and one private school to engage teachers in the process of continual learning and improvement that we ask of students. Three annual cohorts of 150 teachers (Teacher Leaders) were active participants in intense, ongoing and embedded professional development and mentoring that translated to technology infusion in the classroom and improved writing literacy for students. Teacher Leaders, as well as other participating teachers from various grade levels and subject areas, utilized Web 2.0 tools to familiarize themselves with the interactive digital world; worked collaboratively within their professional community; and created and shared their work online. Teachers gained knowledge and confidence as they were able to use these tools to engage students, enhance writing skills across the content area, and foster community and collaboration within the classroom.

This project effectively address edprogram purpose number two: *Technology Infusion into Instruction through Professional Development.* This consortium project brought together resources and expertise from across the region and is impacting more than 72,000 students in grades kindergarten through twelve; 10,848 of them living in poverty.

2009-2012 PROGRAM PARTICIPATION

Years 1-3 - Project Participants

Participant Group	Year 1	Year 2	Year 3
Teacher Leaders	134	119	82
Number of districts	55	55	55
Number of schools	154	154	154
Number of teachers targeted for participation	150	150	95
Total number of students in participating districts	72,005	72,005	72,005
Total number of students in participating schools	72,005	72,005	72,005

IMPLEMENTATION HISTORY
Listed below are the project components and implementation status as of the final year of the grant; three-year cumulative data are provided where appropriate. Data are based on internal program records supplied by project leadership

- In Year 3 of the grant, as a result of a decrease in funding, there were changes in the number of participating targeted professionals: 1 Teacher Leader was identified from each of the participating districts, and up to 14 Teacher Leaders were selected from participating high need districts..

- Participating Teacher Leaders continued to identify curriculum (units, lessons, and lesson resources) where 2.0 Literacy/Web 2.0 tools/21st Century skills can be infused to increase student achievement.

- Project leadership changed the online learning management system (LMS) from Angel Learning to Blackboard Learning in order to develop online professional development courses using topics focused on the infusion of technology into instructional practice.

- Model Schools Technology Integration Specialists continued to work in participating districts and schools to provide on-demand assistance, support and mentoring. They worked with individual Teacher Leaders either in or out of the classroom. They also continued to coordinate virtual mentoring meetings with participants every six weeks to share successes and collaboratively build the learning (virtual lesson) repository.

- Similar to Years 1 and 2, participating Year 3 teacher leaders s shared ideas and successes at the regional **T.H.E. Symposium** held in January 2012. They highlighted the lessons they developed and shared student responses and impacts when implemented in their classroom. A keynote speaker – Travis Allen, Founder of the iSchool Initiative presented to the Symposium participants on 'Life as a Mobile Learner.'

- The vast majority of Teacher Leaders produced at least one virtual lesson that was peer reviewed by the Model Schools Curriculum Committees and then stored in the Learning Management System as a regional repository of best practices; many developed two lessons. The lessons are aligned with NYS Learning Standards, relate to at least one ISTE (International Society for Technology in Education) standard, and contain the student use of at least one Web 2.0 tool.

KEY FINDINGS BY GOAL

Goal 1: Use Web 2.0 tools as a learning platform for teachers to familiarize themselves with the interactive digital world; work collaboratively within their professional community; and create and share their work online

Key Finding: Over the course of the EETT grant period, the educational preparation of selected teacher leader cohorts increased.

Key Finding: The Quality of the Coordination between participating schools' instructional programs and the use of technology increased during the EETT grant timeframe.

Key Finding: Teachers' positive attitudes toward instructional technology are increasing with time.

Key Finding: Teacher leaders increased their efforts to disseminate technology practices in their respective schools during the course of the grant program.

Key Finding: Significant barriers to realizing the full potential of educational technology remain.

Key Finding: The M-O BOCES EETT program created a vast array of K–12, technology-infused, learning experiences to share with districts and schools.

Key Finding: Teachers have significantly increased their technology integration skills.

Goal 2: Utilize the technology tools and collaborative process to improve writing literacy across the content area and support student achievement

Key Finding: Participating teacher leaders improved their capacity to design and deliver more substantial and challenging lessons.

Key Finding: Participating teacher leaders improved their capacity to develop and deliver more student-centered lessons.

Key Finding: Participating teacher leaders improved their capacity to design and delivery instruction to varied learners.

Key Finding: Participating teachers have dramatically improved their ability to use technology to implement important instructional skills.

Key Finding: State assessments in ELA for grades 3 through 8 in participating schools are comparable to statewide trends over the three years of the grant.

Key Finding: There was little to no improvement in ELA performance in targeted districts, with the exception of middle school performance in the LaFargeville School District.

Key Finding: Students were more active and engaged learners as a result of technology-integrated classroom lessons.

Key Finding: Important and positive results for students occurred as a result of the integration of technology into classroom learning.

Goal 3: Provide just-in-time support, assistance, and mentoring for each high need LEA

Key Finding: A greater proportion of Teacher Leaders participated in the key EETT professional development activities as each year of the grant rolled-out.

Key Finding: EETT professional development was rated highly relevant to the practice of teacher leaders.

Key Finding: MORIC follow-up technical assistance to participating teacher leaders increased in frequency as the grant rolled-out.

Key Finding: The vast majority of teacher leaders rated MORIC Technology Specialists as both very prepared and very helpful.

CONCLUSIONS

The evaluation of the Madison-Oneida Enhancing Education Through Technology grant program provided some important insights about the progress of instructional reform in participating schools. We learned, for example, that teachers in participating schools are progressing toward routine use of technology in the classroom with respect to instruction. We also found that the majority of teachers have a professional belief system that values sharing ideas and approaches, and collaborating to use technology within and across grades. Indeed, the project is responsible for the development, vetting, and dissemination of over 750 structured learning experiences using technology that are available online.

What we did <u>not</u> find in many schools were planning processes and procedures that facilitated the integration of technology into classroom instruction and/or ongoing reform initiatives at the school- and grade-levels. By far, the predominant way that technology tools and applications found their way into the classroom was from the efforts of 1-2 "technology champions" who informally encouraged and promoted their use among faculty and staff. Throughout the evolution of the EETT project, participation in professional development events increased. By Year 3, in addition to the annual Symposia and Summer Camps, 50% of teacher leaders were accessing/requesting follow-up technical assistance and professional development, delivered by the MORIC Technology Specialists. With few exceptions, this type and level of support was extremely well-regarded.

Finally, the State ELA (Grade 3 thru 8) assessment results revealed no overall achievement gain over time, nor in comparison to statewide results. Indeed the overall EETT program performance results mirrored the fluctuating state performance data obtained during the project timeframe. One positive exception to this finding was the results achieved by one of the targeted high-needs districts where middle school ELA performance gains were striking. Also positive were student academic behavior improvements cited, including class participation, quality of written work, course grades, and the quality of completed homework assignments.

1. SUMMARY OF THE PROJECT

1.1. PROJECT DESCRIPTION

The Madison-Oneida BOCES and the Mohawk Regional Information Center (MORIC) partnered with three high need local education agencies, forty-seven other local educational agencies, four BOCES and one private school to engage teachers in the process of continual learning and improvement that we ask of students. Three annual cohorts of 150 teachers (Teacher Leaders) were active participants in intense, ongoing and embedded professional development and mentoring that translated to technology infusion in the classroom and improved writing literacy for students. Teacher Leaders, as well as other participating teachers from various grade levels and subject areas, utilized Web 2.0 tools to familiarize themselves with the interactive digital world; worked collaboratively within their professional community; and created and shared their work online. Teachers gained knowledge and confidence as they were able to use these tools to engage students, enhance writing skills across the content area, and foster community and collaboration within the classroom.

This project effectively addresses program purpose number two: Technology Infusion into Instruction through Professional Development. This consortium project brings together resources and expertise from across the region and will potentially impact more than 72,000 students in grades kindergarten through twelve; 10,848 of them living in poverty.

This project focuses on addressing the needs of the school buildings and districts identified as in need of improvement within the partnership. The Rome City School District is identified as a high need LEA because of its poverty levels and DINI status. Two of its school buildings are SINI or Planning for Restructuring. These designations are based on student performance in ELA. Van-Hornesville (Owen D. Young) and LaFargeville are identified as high need LEAs because of poverty levels and a substantial need for assistance in acquiring and using technology.

In Year 3, the project was again implemented in 154 schools across the M-O BOCES constituent districts. In addition, the *Writing through Technology* component is being implemented in the 3 targeted low-performing districts and associated schools.

1.2. PROJECT GOAL/OBJECTIVES

A progress report of the implementation of the Year 2 goals of the M-O BOCES EETT program is displayed in **Exhibit 1**. The goals are consistent with the original project proposal.

Exhibit 1
Project Goals and Progress to Date

Project Goals	Status
Use Web 2.0 tools as a learning platform for teachers to familiarize themselves with the interactive digital world; work collaboratively within their professional community; and create and share their work online	***The goal was achieved**. Specifically: • Over 350 Teachers Leaders were trained in the use of Web 2.0 tools; • 753 technology-integrated (virtual lessons) were developed and posted to the online learning management system (Angel); • Nineteen (19) professional development courses have been created between the combined Angel Learning Management System and the Blackboard Learning Management System to support participating teachers; • Over 250 teachers participated in the *T.H.E. Symposium* over the course of the 3-year grant period; • Specific professional development workshops were presented on on Advanced Angel Features (e.g., using Macros and Repositories), Web 2.0 Tools, Writing Integration and Blackboard Integration.*
Utilize the technology tools and collaborative process to improve writing literacy across the content area and support student achievement	***The goal was achieved**. Specifically: • Students were more active and engaged learners as a result of technology-integrated classroom lessons. • Important and positive results for students occurred as a result of the integration of technology into classroom learning • Statewide ELA assessment results mirrored those of the similar schools and the State as a whole • Middle school (grades 6-8) ELA Assessment results improved dramatically at one of the targeted, high need schools*

Project Goals	Status
Provide just-in-time support, assistance, and mentoring for each high need LEA	***The goal was achieved***. Specifically:: • Over 250 school visits were conducted over the course of the 3-year grant program; • Over 1,000 on-the-job mentoring sessions with participating Teacher Leaders were conducted; • 10,000 grant-specific phone and email correspondence took place

1.3. PROJECT PARTICIPATION

The numbers of participants across three years of the grant are presented in **Exhibit 2** below. Note that in all instances numbers may represent some of the same schools/individuals across different years (i.e., data are not cumulative.

Exhibit 2
Years 1-3 - Project Participants

Participant Group	Year 1	Year 2	Year 3
Teacher Leaders	134	119	82
Number of districts	55	55	55
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2. PROJECT MAJOR RESULTS

Selected outcomes related to teachers, academics and school improvement are provided in this section. Please see **Section 5 Project Outcomes and Results** for a more complete presentation of findings

2.1   Teachers

Teacher Leaders strengthened their technology skills and increased their use of technology in the classroom..

- Teacher Leaders improved their ability to design and deliver technology-infused lessons that contained more challenging subject-area content.

- Teacher Leaders increased their "routine" use of technology tools for classroom instruction, and encountered fewer challenges in doing so

- Teacher Leaders integrated a variety of Web 2.0 tools into their classroom instructional programs; some on a weekly basis, others more frequently. *Glogster*, *Animoto*, and *Prezi* were the most often used Web 2.0 tools.

- Teacher Leaders collaborated often with other teachers in sharing, critiquing, and supporting the integration of technology into instruction.

- Teachers leaders designed and developed over 750 technology-infused learning experiences that were reviewed by an independent committee of teachers for inclusion in an online repository; available to be downloaded by other project teachers.

2.2   Academics

Targeted participating schools made significant ELA standardized test score gains, while participating students made important improvements in their academic behaviors as a result of the project.

- Middle school students in one of the 3 targeted, high needs districts made impressive gains in ELA state assessments. Between 2008 (1 year prior to the start of the EETT project) and 2011 (the most recent year of available data), 6th grade students advanced, on average, 12 standard score points; 7th grade students, 7 points; and 8th grade students by 24 points.

- Teacher Leaders reported greater proficiency in the quality of student writing samples; class discussion participation levels; attendance; and course grades.

2.3   School Improvement

While overall school improvement was not a specific focus of the local evaluation, there are selected examples of the ways in which the project has had a positive influence on the schoolwide environment.

- Teachers Leaders believe that the EETT program is filling a "major need" in their schools, and that it fits smoothly into their school curriculum and instructional programs.

- Qualitative data gathered during site visits to participating schools and districts illustrate the potential of the Web 2.0 project to have a positive impact on schools:

  - ✓ Nearly everyone interviewed during site visits, including teachers, administrators, counselors, and central office personnel felt strongly that the Web 2.0 project motivated students who would otherwise "do the minimum" to more deeply and in a sustained way engage the content and ideas of the lessons. In fact, many teachers reported that lesson participation had increased dramatically for these students.

  - ✓ In schools where there was active use of instructional technology, both formal and informal professional sharing of ideas and strategies for integrating technology was evident. In one middle school, for example, teachers met in grade level teams and followed a meeting agenda that included an ongoing discussion topic of technology.

3. Project Implementation History

Listed below are the project components and Year 2 implementation status.

- In Year 3 of the grant, as a result of a decrease in funding, there were changes in the number of participating targeted professionals: 1 Teacher Leader was identified from each of the participating districts, and up to 14 Teacher Leaders were selected from participating high need districts.

- Participating Teacher Leaders continued to identify curriculum (units, lessons, and lesson resources) where 2.0 Literacy/Web 2.0 tools/21st Century skills can be infused to increase student achievement.

- Project leadership changed the online learning management system (LMS) from Angel Learning to Blackboard Learning in order to develop online professional development courses using topics focused on the infusion of technology into instructional practice.

- Model Schools Technology Integration Specialists continued to work in participating districts and schools to provide on-demand assistance, support and mentoring. They worked with individual Teacher Leaders either in or out of the classroom. They also continued to coordinate virtual mentoring meetings with participants every six weeks to share successes and collaboratively build the learning (virtual lesson) repository.

- Similar to Years 1 and 2, participating Year 3 teacher leaders s shared ideas and successes at the regional ***T.H.E. Symposium*** held in January 2012***.*** They highlighted the lessons they developed and shared student responses and impacts when implemented in their classroom. A keynote speaker – Travis Allen, Founder of the iSchool Initiative presented to the Symposium participants on 'Life as a Mobile Learner'.

- The vast majority of Teacher Leaders produced at least one virtual lesson that was peer reviewed by the Model Schools Curriculum Committees and then stored in the Learning Management System as a regional repository of best practices; many developed two lessons. The lessons are aligned with NYS Learning Standards, relate to at least one ISTE (International Society for Technology in Education) standard, and contain the student use of at least one Web 2.0 tool.

4. SUMMARY OF THE OVERALL LOCAL EVALUATION PLAN (DESIGN & METHODS)

The Youth Policy Institute (YPI), an independent research and evaluation firm, conducted the external evaluation of the M-O BOCES EETT Project. The Year 3 evaluation focused specifically on project impact using a mixed-method design. Evaluation activities, respondent groups, and sampling plans are described below.

Teacher Leader Survey
This survey was mechanism for assessing the scope and extent of the use and impact of the various Web 2.0 applications and tools in participating districts, schools, and activities. The survey was completed in May/June. Some of the items were identical to items used in previous years surveys, thus permitting longitudinal comparisons. In addition, many items were phrased retrospectively, allowing for respondent to judge their own progress, or lack thereof, over time.

Key District Staff Interviews
YPI staff conducted in-depth interviews with a sample of targeted district and school personnel to describe the implementation, contextual circumstances, teacher support, changes in instructional capacity as a result of the implementation of project activities. Interviews were conducted by telephone except for key staff interviewed during site visits.

Site Visits
Over the course of the 3-year study, YPI conducted three one-day site visits with the targeted *Writing through Technology* districts and schools (LaFargeville, Owen D. Young, and Rome City school districts). These visits were intended to gain a comprehensive understanding of project implementation and "best practices". During the visits, YPI staff conducted classroom observations, focus groups, and interviews with key project staff, teachers. YPI staff also examined student work and technology projects, and lesson plans. This qualitative information enhanced as well as cross-validated data gathered through the surveys. The main goal was to interview administrators, teachers and students in order to assess overall program effectiveness in changing student performance and teacher usage of technology.

Student Achievement Data Analysis
YPI staff extracted school level data from existing databases (i.e., NYSED School Report Cards, state ELA assessment database) to examine potential effects of the program on overall student achievement. These data will be reviewed and analyzed over time to determine the impact of technology integration on closing the achievement gap between groups.

5. PROJECT OUTCOMES AND RESULTS

Data Collected

Data sources are described in **Section 4**. Survey respondent profiles are provided in this section, followed by major findings organized by project goals.

Years 1-3 Teacher Leader Survey respondent profile is presented in **Exhibits 3** below.

Exhibit 3
Teacher Leader Respondent Profile
(*N=*)

Variable	Year 1 (N=113)	Year 2 (N=72)	Year 3 (N=127)
Teaching Experience			
Total Years Teaching	16 years	16 years	14 years
Total Years in Current school	12.5 years	15.5 years	12 years
Number of districts and schools represented	Districts: 35/55 Schools: 102/154	Districts: 35/55 Schools: 102/154	Districts: 47/55 Schools: 129/154
Grade level			
Kindergarten	4%	3%	7%
Grade 1	9%	11%	5%
Grade 2	4%	6%	6%
Grade 3	7%	8%	3%
Grade 4	4%	7%	6%
Grade 5	6%	3%	3%
Grade 6	5%	7%	4%
Grade 7	6%	4%	5%
Grade 8	12%	11%	3%
Grade 9	9%	8%	7%
Grade 10	6%	4%	8%
Grade 11	2%	3%	9%
Grade 12	3%	4%	11%
Teaching Assignment			
Core Subject/Classroom Teacher	46%	53%	51%
Other	33% (includes Music Art, Library, etc.)	39% (includes Music Art, Library, etc.)	36% (includes Music Art, Library, etc.)
Special Education	10%	8%	7%

MAJOR FINDINGS BY GOALS

Program Goals: Alignment with Federal and State EETT Priorities

The goals of the Madison-Oneida BOCES EETT Initiative (see **Section 1.2**) are directly aligned with those of the EETT grant funding at the state level: namely to increase capacity for teaching and learning and improve student writing skills across the content areas by providing embedded and personalized professional development on technology infusion.

In the following section, we report major findings related to progress toward each of the M-O BOCES EETT project goals.

Goal 1: Use Web 2.0 tools as a learning platform for teachers to familiarize themselves with the interactive digital world; work collaboratively within their professional community; and create and share their work online

Infra-structure is the "glue" that holds the teaching-learning delivery system together. It refers to the quality and experience of the teaching personnel; the culture that supports professional collaboration and sharing; the management and coordination of the instructional program; and the type and nature of the barriers that inhibit effective practice. The extent to which participating districts' and schools' infra-structure successfully accommodates the integration of educational technology into their instructional delivery systems is one of the key outcome areas of the external evaluation of EETT.

The analysis of survey, checklist and site visit data shows that participating districts: annually recruited cadres of qualified teacher leaders who held positive beliefs about the benefits of instructional technology; improved the coordination of educational technology and their current instructional programs; and shared practices between and among their building faculties.

Key Finding: *Over the course of the EETT grant period, the educational preparation of selected teacher leader cohorts increased (see **Exhibit 4**)*

- ❖ The percent of teachers with just a bachelor's or bachelor's plus graduate coursework declined between Year 1 (2010) and Year 3 (2012) of the grant.

- ❖ The percent of participating teachers with a master's degree plus graduate coursework increased significantly during this time.

Exhibit 4:
Comparison of Teacher Leader Educational Preparation – 2010 – 2012

	2010	2012
Bachelor's Degree	3%	0%
Bachelor's plus graduate work	8%	2%
Master's Degree	58%	55%
Master's Degree plus graduate work	31%	43%

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Key Finding:. *The Quality of the Coordination between participating schools' instructional programs and the use of technology increased during the EETT grant timeframe (**Exhibit 5**).*

❖ The percent of participating teachers who indicated that the quality of coordination between the integration of technology into the overall instructional program improved under the EETT program increased by 5 percentage points from Year 1 to Year 3 of the grant.

❖ In addition more teachers rated this level of coordination "much better" in Year 3 than in Year 1.

Exhibit 5: Quality of Instruction and Technology Coordination: 2010 and 2012
Percent Reporting "Better" and "Much Better"
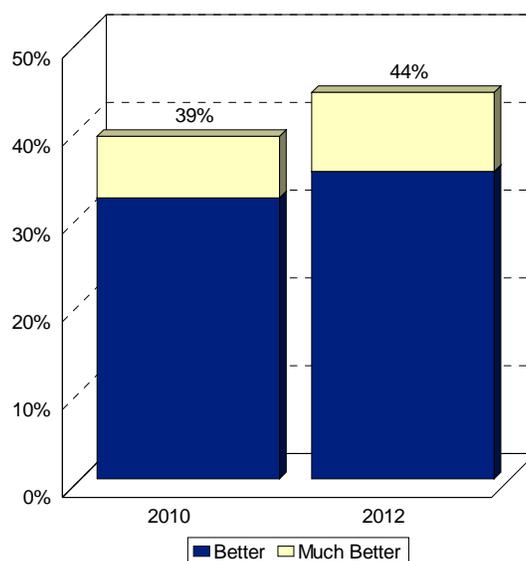
Key Finding: *Teachers' positive attitudes toward instructional technology are increasing with time (**Exhibit 6**)*

❖ More teachers agreed with statements about professional sharing and collaboration on issues of technology in 2012 than in 2010.

❖ More teachers are supportive of one another in the use of technology in Year 3 on the grant than in Year 1

Exhibit 6
Teacher Leader Beliefs about
Instructional Technology 2010 – 2012

	2010	2012
Teachers in my school generally work collaboratively to use instructional technology within and across grades	58%	70%
Most teachers in this school support one another in the use of instructional technology	72%	89%
In this school there is an openness to share teaching practices using technology	65%	85%
In this school there is adequate engagement time for students to be involved in lessons using technology	48%	66%

Key Finding: *Teacher leaders increased their efforts to disseminate technology practices in their respective schools during the course of the grant program (**Exhibit 7**)*

❖ Fewer teachers failed to share what they learned from EETT professional development in 2012 compared with 2010.

❖ A larger percent of teachers shared their learnings with colleagues in 2012 than in 2010.

Exhibit 7:
Sharing Technology Practices: Comparison of Teacher Leaders in 2010 and 2012

Did you share what you learned from the EETT professional development activities with teachers in your school?

	No	No, but plan to	Yes
2010	6%	18%	76%
2012	3%	7%	90%

Key Finding: Significant barriers to realizing the full potential of educational technology remain *(Exhibit 8)*

❖ Significant percentages of teachers in both 2010 and 2012 indicate that the lack of leadership support and planning processes inhibit the effective integration of educational technology.

❖ A slightly higher percentage of teachers in 2012 see competing curriculum priorities as a barrier to using educational technology than in 2010.

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Exhibit 8: Barriers Inhibiting Educational Technology

2010 and 2012
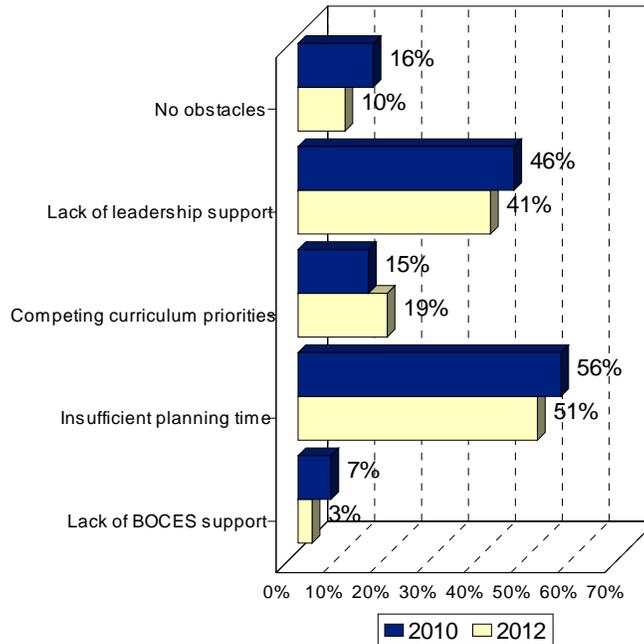
Barrier	2010	2012
No obstacles	16%	10%
Lack of leadership support	46%	41%
Competing curriculum priorities	15%	19%
Insufficient planning time	56%	51%
Lack of BOCES support	7%	3%

Key Finding: The M-O BOCES EETT program created a vast array of K–12, technology-infused, learning experiences to share with districts and schools (**Exhibit 9**)

- ❖ The number of learning experiences created by teacher leaders declined each year of the grant program; the decline was particularly noteworthy in Year 3.

- ❖ Nevertheless, over the course of the grant program, Teacher Leaders developed over 750 technology-infused learning experiences.

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The chart shows values: 2010 = 274, 2011 = 240, 2012 = 114, Project Extension = 127.
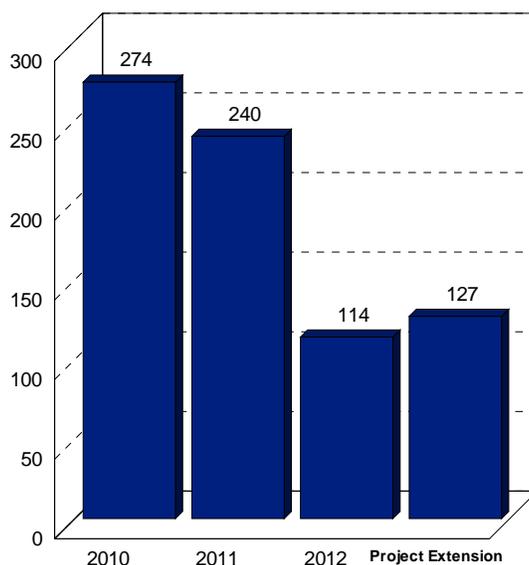
Key Finding: Teachers have significantly increased their technology integration skills (**Exhibit 10**).

- ❖ Over the course of the EETT program, a steady movement toward *routine* use of instructional technology occurred.

- ❖ Despite this progress, a very small percentage (6%) has fully integrated technology into their everyday practice.

**Exhibit 10
Extent of Instructional Technology Use: 2010 – 2012**

Which statement best describes teacher use of technology for instruction in your building?	2010	2012
Skill Level 1: Teachers are still learning about ways of using technology for instruction; they have not yet used it.	31%	19%
Skill Level 2: Teachers have begun to use technology for instruction, but their usage is uneven because they have not mastered all of the logistical, time, and managerial issues.	52%	36%
Skill Level 3: Teachers are using technology for instruction routinely and have encountered minimal implementation problems.	15%	38%

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Skill Level 4: Technology is fully integrated in the instructional program—it is a normal, ongoing part of the way teachers do business.	0%	6%
Skill Level 5: Teachers are now exploring ways of refining their use of technology to increase its impact on students.	2%	1%
Skill Level 6: Teachers are collaborating with other teachers in our school to expand the impact of technology on all of our students.	0%	0%
Total	**100%**	**100%**

Goal 2: Utilize the technology tools and collaborative process to improve writing literacy across the content area and support student achievement

The bottom-line for any instructional reform is student achievement. *Have student test scores improved as a result of the instructional program?* This question must be addressed as part of any external evaluation. Beyond this issue are questions about student academic behaviors (e.g., engagement, attention, class participation, etc.), as well as learning products (grades, writing samples, and long-term projects). An analysis of these issues will enable the evaluation to assess how well the EETT project addressed the goal: *to utilize the technology tools and collaborative process to improve writing literacy across the content area and support student achievement.*
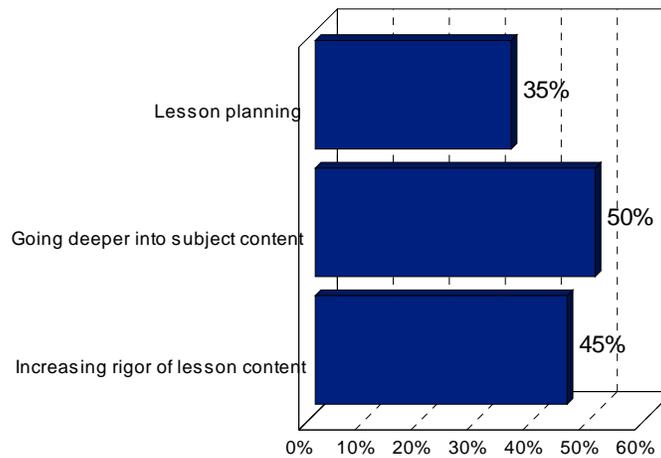
The analysis of New York State ELA Assessment data, at the project level, shows that there was no discernable improvement in student achievement results; similar to overall statewide performance. However, middle school (grades 6-8) results in one of the targeted high-needs districts improved impressively. In general, state assessment results fluctuated during the time of the EETT program, rising in some grade levels, while falling in others.

Survey and qualitative data, however, show that students' academic behaviors (class participation, verbal responses, etc.) and work products (homework, long-term projects, etc.) improved as a result of the EETT project

Key Finding: Participating teacher leaders improved their capacity to design and deliver more substantial and challenging lessons (**Exhibit 11**)

Exhibit 11: Impact of EETT on Classroom Practice

Percent responding "Improved"

Category	Value
Lesson planning	35%
Going deeper into subject content	50%
Increasing rigor of lesson content	45%

(chart x-axis: 0% 10% 20% 30% 40% 50% 60%)

- ❖ Nearly 50% of participating teachers reported that as a result of the EETT program, they improved their ability to craft lessons that go deeper into subject content and represent more rigorous learning experiences.

- ❖ A common theme which came out of focus groups of teacher leaders is found in this quote:
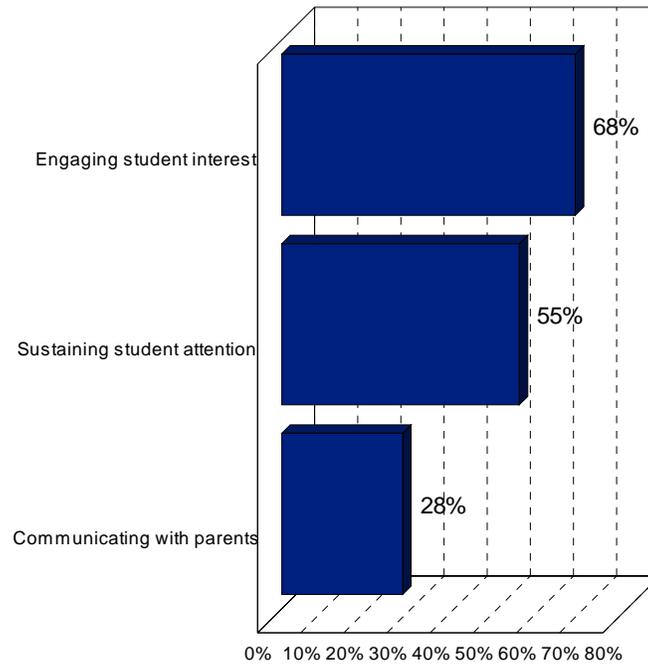
  "I came away with some awesome lessons and new activities for the students to try. The use of the Mac in the classroom made a huge difference for me. I was able to do things that I never thought I would be able to do."

Key Finding: Participating teacher leaders improved their capacity to develop and deliver more student-centered lessons (**Exhibit 11a**)

- ❖ A majority of teachers reported that as a result of the EETT program, they improved their ability to design and deliver classroom instruction that meaningfully engaged their students, and sustained their attention.

Percent responding "Improved"

Engaging student interest — 68%

Sustaining student attention — 55%

Communicating with parents — 28%

0% 10% 20% 30% 40% 50% 60% 70% 80%

Key Finding: Participating teacher leaders improved their capacity to design and delivery instruction to varied learners (**Exhibit 11b**)

- ❖   Four out of 10 participating teachers indicated that the EETT program helped them improve their use of instructional technology to differentiate their instruction, and more effectively work with struggling learners.

- ❖   A similar ratio of teachers reported that the project helped them improve their strategic classroom management skills.

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Exhibit 11b: Impact of EETT on Classroom Practice
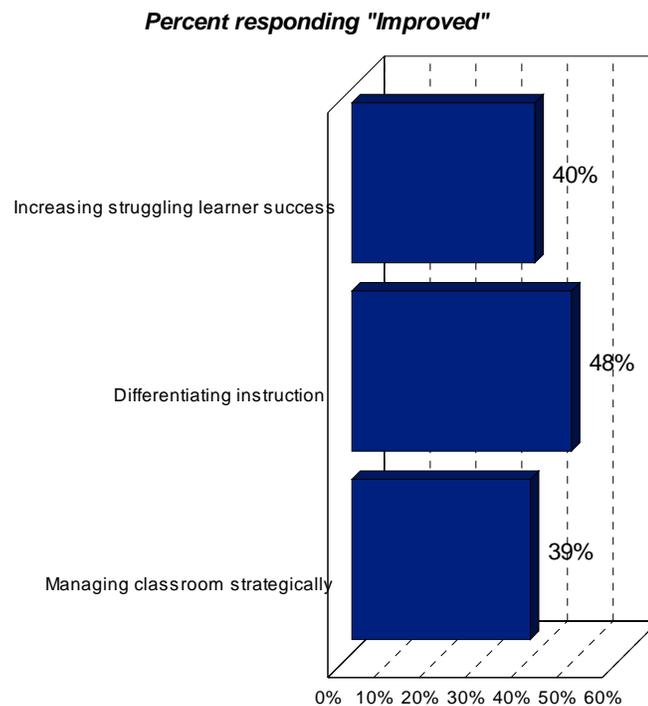
Percent responding "Improved"

Increasing struggling learner success — 40%

Differentiating instruction — 48%

Managing classroom strategically — 39%

0% 10% 20% 30% 40% 50% 60%

Key Finding: Participating teachers have dramatically improved their ability to use technology to implement important instructional skills (**Exhibit 12**)

❖ Prior to the start of the EETT program, teachers in participating schools indicated, on a scale of 1-4, that they had weak instructional technology skills in the areas of student assessment, writing instruction, and working with students with disabilities (scores of 1.29, 1.16, and 1.19, respectively). At the conclusion of the EETT program, teachers rated their skills much higher (scores of 2.73, 2.93, and 2.73, respectively).

Exhibit 12: Impact on Teacher Use of Technology: *Before and After the EETT Program*

On a scale of 1 - 4
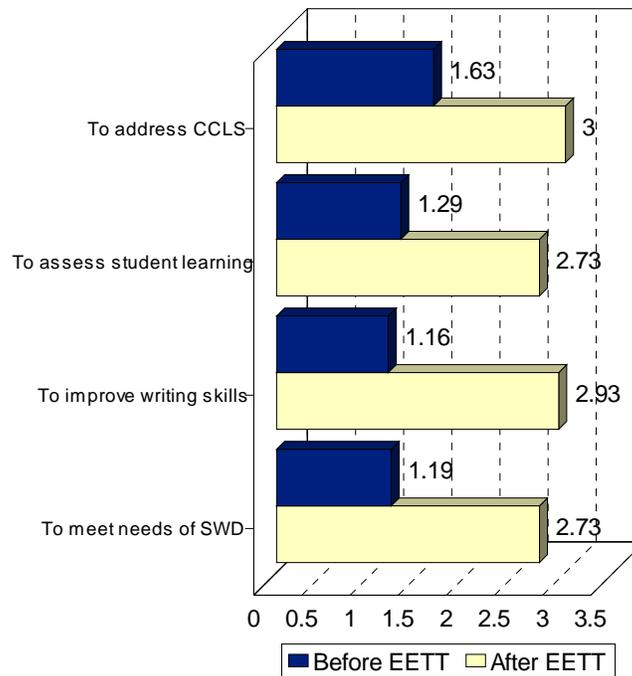
Key Finding: State assessments in ELA for grades 3 through 8 in participating schools are comparable to statewide trends over the three years of the grant (**Exhibit 13**)

- ❖ From 2008 (the year prior to EETT implementation) to 2011, NYS English Language Arts assessment scores for students in grades 3 thru 8 increased statewide in all grades except 3 and 8. ELA assessment results for students in participating EETT schools mirrored the statewide performance.

- ❖ Indeed, the point differential between statewide results and EETT program results during this time varied by only 0-2 percentage points.

Exhibit 13
Mean Scale Scores on the NYS ELA Assessment
Performance among M-O BOCES EETT Schools and Statewide (2008 – 2011)

School Year	Grade 3 ELA		Grade 4 ELA		Grade 5 ELA	
	Program	Statewide	Program	Statewide	Program	Statewide
2008	671	669	667	666	668	667
2009	-7 670	-6 670	+5 668	+6 670	-1 677	+1 675
2010	671	668	674	673	672	672
2011	664	663	672	672	667	668
School Year	Grade 6 ELA		Grade 7 ELA		Grade 8 ELA	
	Program	Statewide	Program	Statewide	Program	Statewide
2008	664	661	663	662	659	657
2009	+0 667	+2 667	+2 669	+2 667	-3 661	-2 661
2010	666	664	668	668	660	659
2011	664	663	665	664	656	655

Key Finding: There was little to no improvement in ELA performance in targeted districts, with the exception of middle school performance in the LaFargeville School District (**Exhibits 13a thru 13f**)

- ❖ Schools in targeted, high need districts districts, as well as statewide, showed inconsistent ELA assessment performance from 2008 thru 2011.

- ❖ However, middle school ELA performance in LaFargeville Central Schools showed noteworthy performance during this time; substantially outperforming the statewide average gains at each grade level.

Exhibit 13a thru f
Mean Scale Scores on the NYS ELA Assessment
Performance among M-O BOCES EETT Schools and Statewide (2008 – 2011)

School Year	13a - Grade 3 ELA			
	LaFargeville	Rome	Owen D. Young	Statewide
2008	675	663	667	669
2009	-7 662	-4 666	-3 652	-6 670
2010	673	664	669	668
2011	668	659	664	663

School Year	13b - Grade 4 ELA			
	LaFargeville	Rome	Owen D. Young	Statewide
2008	666	655	669	666
2009	-3 676	+10 664	+3 666	+6 670
2010	673	669	668	673
2011	663	665	672	672

School Year	13c - Grade 5 ELA			
	LaFargeville	Rome	Owen D. Young	Statewide
2008	668	657	675	667
2009	-6 678	+4 669	-13 662	+1 675
2010	673	662	665	672
2011	662	661	662	668

School Year	13d - Grade 6 ELA			
	LaFargeville	Rome	Owen D. Young	Statewide
2008	651	663	669	661
2009	+12 670	-3 661	-4 666	+2 667
2010	674	661	660	664
2011	663	660	665	663

School Year	13e - Grade 7 ELA			
	LaFargeville	Rome	Owen D. Young	Statewide
2008	656	658	666	662
2009	+7 668	+1 663	663 0	+2 667
2010	673	665	660	668
2011	663	659	656	664

School Year	13f - Grade 8 ELA			
	LaFargeville	Rome	Owen D. Young	Statewide
2008	635	648	661	657
2009	+24 665	+5 656	-9 653	-2 661
2010	649	658	655	659
2011	659	653	652	655

Key Finding: Students were more active and engaged learners as a result of technology-integrated classroom lessons (**Exhibit 14**)

- ❖ More than 50% of participating teachers reported that their students' class participation improved as a result of technology-infused instruction.

- ❖ One third of teachers indicated the quality of their students' written work and verbal responses improved.

Exhibit 14: Impact of EETT on Students
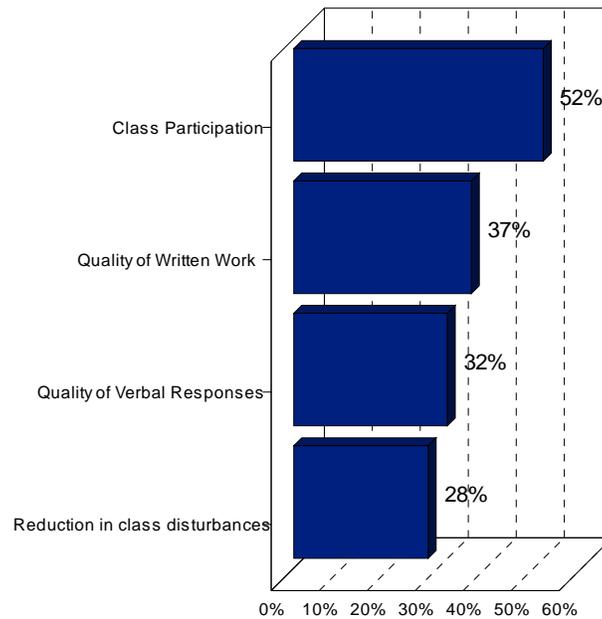
*Percent responding "Improved"*

Key Finding: Important and positive results for students occurred as a result of the integration of technology into classroom learning (**Exhibit 14a**)

- ❖ One-quarter of participating teachers   reported that course grades and the quality of long-term project work improved as a result of technology-based instruction.

- ❖ Fifteen percent of teachers saw a reduction in absences due to their use of instructional technology.

Exhibit 14a: Impact of EETT on Students

Percent responding "Improved"

Quality of Long-Term Projects — 25%
Course Grades — 25%
Absenteeism — 15%
Quality of Homework — 12%

0% 5% 10% 15% 20% 25% 30%
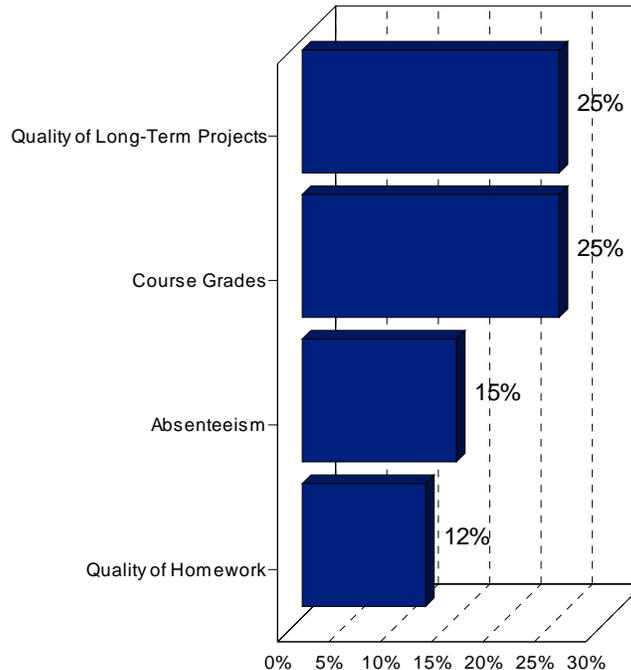
Goal 3: Provide just-in-time support, assistance, and mentoring for each high need LEA

Some reformers have described a good school as a place where everyone is teaching and everyone is learning – teachers, parents, and the community. The professional preparation of staff is especially key in the field of educational technology, as teachers are required to think and instruct in new ways: to understand how technology supports and enhances the achievement of the new learning standards; how it can be used to better assess student learning; and how it can support differentiated instructional practices. Professional development opportunities in effective schools extend beyond the traditional workshops into such approaches as online delivery of new techniques and strategies; developing and vetting model learning experiences to be shared virtually; and, providing support and mentoring when teachers need it most. This latter point is emblematic of M-O- BOCES EETT project goal: ***provide just-in-time support, assistance, and mentoring for each high need LEA***
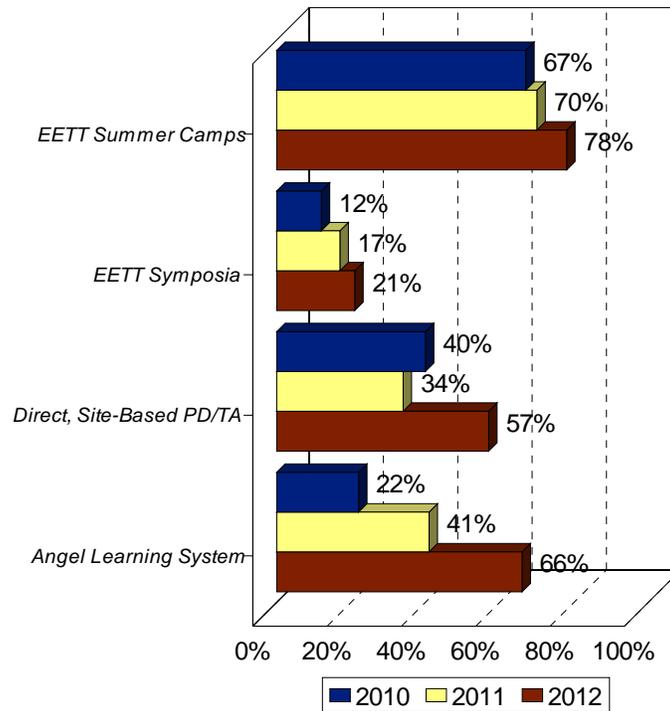
According to the evaluation evidence, the M-O BOCES EETT project had greater participation in PD events each year of the grant. In addition, participants found the training relevant to their practice; many indicated it was *very* relevant. Moreover, the frequency and quality of follow-up support from the Technology Specialist increased each year of the project.

Key Finding: A greater proportion of Teacher Leaders participated in the key EETT professional development activities as each year of the grant rolled-out (**Exhibit 15**).

❖ Across all common PD events, there was an increasing number or participating teachers involved during the 3-year grant period.

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❖ Of particular note is the large increase in the number of teachers who participated in site-based professional development and follow-up technical assistance.

Exhibit 15: Participation in EETT-Sponsored Professional Development Events
2010-2012

| Category	2010	2011	2012
EETT Summer Camps	67%	70%	78%
EETT Symposia	12%	17%	21%
Direct, Site-Based PD/TA	40%	34%	57%
Angel Learning System	22%	41%	66%

Key Finding: EETT professional development was rated highly relevant to the practice of teacher leaders (**Exhibit 16**)

❖ The majority of teacher leaders rated all EETT professional development relevant to their practice.

❖ Of particular note, are the very high ratings for the EETT Summer Camps and the EETT Symposia.

Exhibit 16: Relevance of EETT Professional Development

Percent responding "somewhat" or "very relevant"
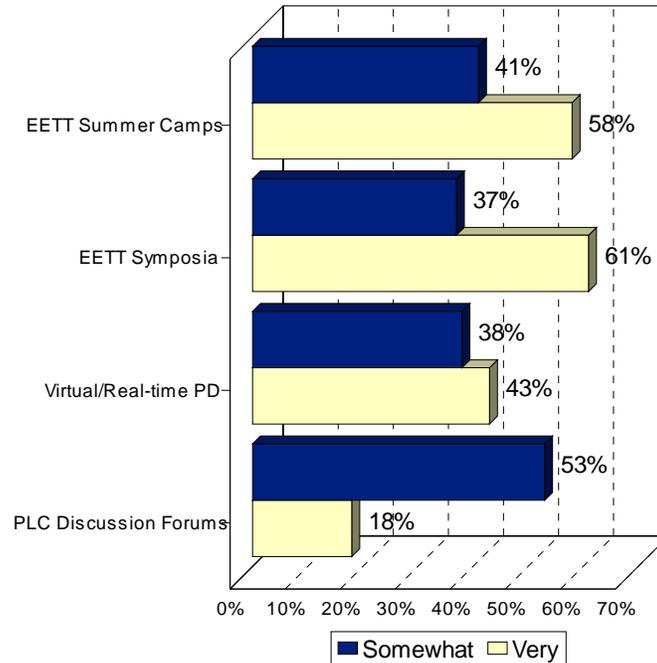
❖ Finally, a number of participants voiced a need for additional training and support.

"It would be great if we could be kept up-to-date on the latest information out there regarding Web 2.0 Tools and other techniques to enhance student learning."

"I'd like more training with online apps--we could use someone to do the research to find the apps that could be useful to teachers."

Key Finding: MORIC follow-up technical assistance to participating teacher leaders increased in frequency as the grant rolled-out (**Exhibit 17**)

❖ As the project evolved, teacher leaders reported more frequent follow-up technical assistance provided by MORIC Technology Specialists.

Exhibit 17: Frequency of MORIC EETT Technical Support
2010 and 2012
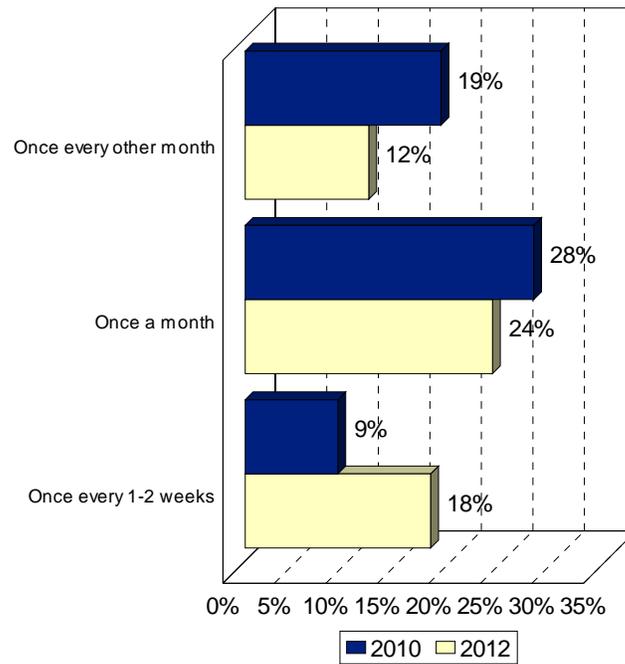
Key Finding: The vast majority of teacher leaders rated MORIC Technology Specialists as both very prepared and very helpful (**Exhibit 18**)

❖ Seventy-seven percent of teacher leaders rated the technical assistance provided by MORIC Technology Specialists as very helpful; 65% rated the Specialists as very prepared to deliver the assistance.

Exhibit 18: Preparation and Helpfulness of MORIC Technology Specialists

	Prepared	*Helpful*
Very	65%	77%
Somewhat	27%	20%
Slightly	8%	3%
Not at all	0%	0%

❖ One teacher leader comments represent the views of many vis-à-vis the technical assistance received from the Technology Specialists:

"The support from the Technology Specialists was extremely valuable. I was able to have questions answered that addressed my needs"

6. CONCLUSIONS

CONCLUSIONS

The evaluation of the Madison-Oneida Enhancing Education Through Technology grant program provided some important insights about the progress of instructional reform in participating schools. We learned, for example, that teachers in participating schools are progressing toward routine use of technology in the classroom with respect to instruction. We also found that the majority of teachers have a professional belief system that values sharing ideas and approaches, and collaborating to use technology within and across grades. Indeed, the project is responsible for the development, vetting, and dissemination of over 750 structured learning experiences using technology that are available online.

What we did not find in many schools were planning processes and procedures that facilitated the integration of technology into classroom instruction and/or ongoing reform initiatives at the school- and grade-levels. By far, the predominant way that technology tools and applications found their way into the classroom was from the efforts of 1-2 "technology champions" who informally encouraged and promoted their use among faculty and staff. Throughout the evolution of the EETT project, participation in professional development events increased. By Year 3, in addition to the annual Symposia and Summer Camps, 50% of teacher leaders were accessing/requesting follow-up technical assistance and professional development, delivered by the MORIC Technology Specialists. With few exceptions, this type and level of support was extremely well-regarded.

Finally, the State ELA (Grade 3 thru 8) assessment results revealed no overall achievement gain over time, nor in comparison to statewide results. Indeed the overall EETT program performance results mirrored the fluctuating state performance data obtained during the project timeframe. One positive exception to this finding was the results achieved by one of the targeted high-needs districts where middle school ELA performance gains were striking. Also positive were student academic behavior improvements cited, including class participation, quality of written work, course grades, and the quality of completed homework assignments.