

# EVALUATION BRIEF

**Maine Learning Technology Initiative Program  
Evaluation Report  
2013-14 Professional Development Programs**

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## **Background**

Across the United States, educational policymakers, business leaders, and school administrators have championed the increased presence of technology in classrooms. Cited as a potential tool to increasing students' access to various learning opportunities, many states and districts have adopted innovative approaches to technological integration into schools, including 1-to-1 device distribution and digital curricula.

In the fall of 2002, the State of Maine implemented the largest 1-to-1 middle school laptop program in the United States, the Maine Learning Technology Initiative (MLTI), which provided each 7th and 8th grade student and teacher with a personal technological device. According to the task force report, MLTI was designed to “transform Maine into the premier state for utilizing technology in kindergarten to grade 12 education in order to prepare students for a future economy that will rely heavily on technology and innovation” (Task Force of Maine’s Learning Technology Endowment, 2001, p. vi).

To aid in the adoption and implementation of technology in school settings, the MLTI program supported not only the provision of 1-to-1 devices, but also development of wireless infrastructures, professional development for teachers and administrators surrounding educational technology, and the creation of new positions for technical personnel and on-line supports. These basic components were deemed necessary requirements by the MLTI program to aid in supporting the smooth integration of educational technology directly into the classrooms and curricula of teachers.

Since its inception, the MLTI program has grown and changed to meet the emergent needs of schools in Maine. Over the course of the program, there have been two major changes. Perhaps the most notable area of expansion came in 2009 when MLTI established an opt-in program for high schools. Unlike the middle school program, high schools had to provide additional local funding to participate in the MLTI program due to budget constraints at the state level. As a result, approximately 45% of high schools elected to participate in the program.

In 2013, MLTI experienced a second major change. To this point, all MLTI devices were exclusively Apple laptop computers, but in Spring 2013, MLTI expanded the technology device offerings. This preferred selection process resulted in giving schools the ability to decide which technology device to implement in their middle and/or high schools. Table 1 reports the selection of devices for Maine students and teachers by technology provider.

**Table 1: Selected MLTI Technology Providers**

Technology Providers	Student Device	Teacher Device
Hewlett-Packard Company (Primary Proposal)	ProBook 4440	ProBook 4440
Apple, Inc. (Primary Proposal)	iPad 32GB	iPad Mini & MacBook Air
Apple, Inc. (Alternate Proposal)	MacBook Air	MacBook Air

A total of 256 middle and high schools participated in the MLTI program. The Apple iPad (Primary Proposal) was chosen by 140 schools. The Apple MacBook Air (Alternate Proposal) was chosen by 82 schools, and 25 schools selected the Hewlett-Packard (HP) ProBook 4440 (Primary Proposal) device. Table 2 shows the percentage of middle and high schools by their selected device.

**Table 2: MLTI Technology Providers Schools**

School	Apple iPad	Apple MacBook	HP ProBook
Middle School	58%	33%	9%
High School	64%	27%	9%
Middle/High School	48%	35%	17%

As may be seen in Table 2, the preferred solution change substantially affected the MLTI landscape by increasing the types of technology devices available to schools participating in the MLTI program. In addition to providing the technology device, each technology provider and MLTI included a variety of professional development (PD) supports in the implementation and use of the devices chosen.

**MLTI & MEPRI 2013 -2014 Evaluation Activities**

As evidenced by its stated commitment to evaluation from its initial conceptualization, a central component of the MLTI is the ongoing assessment of the program’s quality and impact on schools, teachers and students across the state of Maine. Since the MLTI program began, the University of Southern Maine, Center for Education Policy Applied Research and Evaluation (CEPARE), and the Maine Education Policy Research Institute (MEPRI) has served as the

external evaluator of the MLTI program. The primary goal of this report was MEPRI’s evaluation of the MLTI program Professional Development activities in the 2013-2014 academic year. MEPRI evaluated the different types of technology PD offered to administrators, teachers, and schools participating in the MLTI program.

In support of the new implementation of the devices and in addition to disseminating professional development (PD) specific to technology and education, PD was provided by the staff of the preferred solution device and MLTI: MLTI staff offered PD to all participating schools, HP staff offered PD to schools that selected an HP device, and Apple staff offered PD to schools that selected an Apple device.

As part of the evaluation process, the MLTI staff collected and forwarded data obtained from the technology providers regarding the types of PD events and activities they conducted in addition to MLTI’s own activities and events to MEPRI for analysis. Table 3 shows the type and format of PD information forwarded by MLTI.

**Table 3: Number of Total PD Events by Provider**

PD Events	MLTI	HP	Apple
Face to Face	59	48	114
Webinar	14	7	29
Unknown	0	0	99*

*\* Please go to table 14 for details*

To aid in understanding the expansion and impacts of the device options for MLTI schools MEPRI conducted a series of additional evaluations regarding the PD events and activities conducted by MLTI and the technology providers. From June 2013 to July 2014 MEPRI participated in and/or implemented the following evaluations and activities:

**Table 4: Total Number of MEPRI Evaluations**

Providers	Attended Leadership Meetings	Attended & Observed PD Events	Disseminated Surveys	Evaluation of MLTI and Vendor surveys
MLTI	8	11	0	6
HP	2	5	2	1
Apple	2	17	2	1
Total	12	33	3	8

The following is the breakdown of MEPRI's activities of the MLTI program:

- Attended 12 leadership meetings to understand the goals and objectives of the program to effectively assess PD activities and events.
- Attended 33 PD events/activities to observe how PD information was disseminated to administrators, teachers, technicians, and students by MLTI and their providers.
- Disseminated three different surveys. The same survey was disseminated to HP and Apple regarding their various PD impacts on teachers and one specific survey each was disseminated to Apple and to HP regarding their leadership trainings.
- Evaluated eight different MLTI and vendor generated surveys disseminated at their various PD events and functions.

MEPRI's goal was to triangulate the various evaluations to validate findings across settings and populations in relation to the PD activities and events. In addition, data, evaluations and results allowed for some comparison between devices.

### **Evaluation of MLTI Provided Professional Development Activities**

As stated above, the MLTI program continues to provide Professional Development. The core of the MLTI PD program remains the professional development opportunities that are provided to schools, administrators, teachers, and technical staff. According to the MLTI program leadership, the MLTI goal has been to continue to provide direct professional development to support and change teacher practices in ways that leverage technology to facilitate a student-centered learning environment. The MLTI has identified and continues to work with schools to develop ongoing and meaningful collaborations with educators to examine and utilize digital content, change pedagogy and instructional practices, and utilize the ever-changing landscape of technology tools.

To aid in the dissemination process, training, and support of technology to educators in Maine, the MLTI PD staff is comprised of multiple members with varying educational and technology backgrounds filling a variety of roles. The staff consist of the MLTI Leadership team led by the Learning Technology Policy Director, and support staff members; the MLTI Integration Mentor or Consultants in specific content areas that facilitate integration of curriculum and technology with educators; and the technology providers, Apple, Inc. and Hewlett Packard staff members, who provide direct support and assistance in collaboration with the MLTI Department. MLTI also encourages schools to have a teacher leader to help in implementation of technology use in "whole-school capacity building" to increase student and

educator learning. MLTI offered technology support to all schools in the MLTI program regardless of device selection. Schools could also request PD support from MLTI without costs.

MEPRI evaluated MLTI in two areas, the first consisted of evaluating MLTI’s self-reported assessment measures and the second consisted of various observations of MLTI PD events. Regarding the first aspect, MEPRI examined the MLTI self-evaluation results which targeted PD events that were actively disseminated to schools for the 2013-2014 school year. These MLTI PD events consisted of over 23 unique PD events comprising a topic, skill, or content area. Out of those 23 unique PD events, there was a total of 73 PD events disseminated around the State of Maine. Table 5 shows a breakdown of those events.

**Table 5: Number of PD Events offered by MLTI**

MLTI PD Events	Unique Events	Total Events
Face to Face	13	59
Webinar	10	14

A unique PD event consisted of a technology subject, content area, or topic such as “Digital Citizenship” which was then disseminated multiple times to various audiences in Maine. The PD by MLTI varied to reflect the needs of technology use requested by schools.

The majority of PD events conducted by MLTI consisted of one day events. To aid in their evaluation of the PD events and activities, MLTI crafted six different surveys to access specific areas.

1. A Summer Teacher Conference survey
2. A content specific survey utilized by the math specialist
3. Four content specific surveys for MLTI staff.

These MLTI surveys appear in Appendix A. MLTI disseminated these surveys at their PD events, collected the responses and forwarded the results in aggregate form to MEPRI for analysis. Analysis of those survey results indicate that 92 schools were represented at one or more of the events. Table 6 shows a breakdown of the schools to a MLTI PD event.

**Table 6: MLTI Survey Results**

MLTI	# Unique Schools
High School	50
Middle School	26
Total	76

A total of 190 individuals responded to the survey. However, MLTI did not forward the total number of individuals that may have attended a session, event, or received assistance. In addition no information was forwarded regarding the schools that went to the Association of Computer Technology Educators of Maine (ACTEM) conference, the Maine Association for Middle Level Education (MAMLE) conference, or the MLTI Student conference. No information was forwarded regarding online supports that were accessed, or schools that may have requested PD. In addition, limited information was provided to determine if individuals had attended one or many sessions. Therefore the numbers and events may not be an accurate reflection of participation levels by individuals and schools.

The MLTI survey results may be broken down into three components. The first is a review of the presentation and the facilitators, the second is in regard to understanding the content presented, and finally, the third is in regard to participants rating the PD event in using the PD knowledge in their practice. A summary of the survey results is presented in Table 7.

**Table 7: MLTI Survey Summarized Result**

Percentage of respondents	Summarized Results
90%	of participants were satisfied or ranked the presenter/facilitator as being very well prepared and that the session was well taught.
72%	or more of participant’s Strongly Agreed/Agreed that they understood how the content of the PD related to the content of their practice.
86%	or more of participants Strongly Agreed/Agreed that the PD facilitated their knowledge in using technology for that content area.

MLTI’s survey results were positive. In addition, many of the write in responses by participants detailed how they would use the PD information and technology in their curriculum or practice.

MEPRI staff also observed multiple MLTI PD events in a variety of offerings across settings, venues, and population. Similar patterns and trends were observed between participants regardless of the PD event or technology device. A summary of those observations is presented below:

- Participation varied by event and location, number, and role of participants.
- Technology information presented utilized a multiplatform context.
- The presenters were all observed to be knowledgeable regarding the content discussed and how to implement the content into a teacher’s pedagogy and lesson.

- All participants observed demonstrated that they were fully engaged, asked questions relevant to their practice, and actively engaged with the content or device.
- Participants actively engaged with their device to access the tools or information demonstrated.
- Participants were actively involved in learning how to effectively use the device to integrate technology into content and curriculum and impact student learning.

**Evaluation of Hewlett Packard Provided Professional Development Activities**

The Hewlett-Packard ProBook 4440 was selected as one of the choices of technology use by the State of Maine for the 2013-2014 school year for schools. The HP Probook 4440 device came with software and online capabilities for teachers and students to utilize in their education. The number of schools that selected an HP device is presented in Table 8. A total of twenty five (25) high schools and/or middle schools selected the HP technology laptop device.

**Table 8: HP Schools**

Hewlett Packard Schools	
High Schools	5
Middle Schools	16
High/Middle School	4

Hewlett Packard (HP) in collaboration with Education Networks of America (ENA) provided an overall professional development plan. According to HP, the focus of the plan was to address transforming education and the classroom experience at these schools. The PD plan targeted varying skill levels of educators and leaders to address adoption of technology instruction. HP partnered with Microsoft, Intel, McREL, Atomic Learning, ClassLink and Common Sense Media with ENA providing project management services to provide a varied selection of professional development opportunities consisting of:

- 1) Face to Face leader-led or train-the-trainer workshops
- 2) Face to Face workshops including HP technical workshops, and McREL advanced 1:1 technology integration.
- 3) Online learning events including facilitator-led or self-paced classes, video tutorials, and webinars.
  - a. Online resources consisted of Atomic Learning Integrate and Mobilize tutorials, Common Sense Media K-12, Digital Literacy and Citizenship Project and Learning Ratings for Educators courses and resources, Intel Teach Elements Series, Education and Engage Community courses and Network courses and communities.

MLTI forwarded assessment information provided by HP on their PD events to MEPRI for analysis. The number of those events and activities is presented in table 9. There were a total

**Table 9: Total Number of PD Events by HP**

Hewlett Packard	Unique Events	Total Events
Face to Face	13	48
Webinar	6	7

of 19 unique PD events by HP. The HP staff disseminated those unique PD events 55 times in Maine. Table 10 indicates the number of participants and their identified schools that participated in an HP PD event.

**Table 10: Attendance of Participants/Schools to HP PD events**

Category	Total #
Participants	256
Unique Participants	125
Unique Schools	53

The majority of PD events conducted by HP consisted of one day events. It must be noted that the schools that attended HP events not only represented Maine HP schools but included schools from New Hampshire, and Vermont and technical high schools in Maine. In review of the missing data Table 10 may under-represent actual attendance to HP events. No attendance was forwarded to MEPRI regarding requested PD by schools, attendance to MLTI sponsored/hosted events including the student summer conference, or to other venues including the ACTEM conference. In addition no evaluation information was forwarded to MEPRI regarding Maine educators accessing HP’s online supports.

MEPRI staff reviewed HP’s self-evaluation results. The majority of these results were comprised of Face-to-Face PD events and sessions presented to teachers or other educational staff members. MLTI forwarded HP’s survey, which included the raw and aggregate results from the majority of the HP PD events. The information forwarded provided detailed individual responses and a breakdown of responses to each event or activity. They also included the survey template that HP utilized. HP’s evaluation tool had a write in response section and utilized an Agree Disagree Likert Scale. HP’s standardized evaluation measure targeted two areas:

The first area of evaluation consisted of three Strongly Agree to Disagree questions regarding the presenter and the event. 90% or more of respondents Strongly Agree/Agree that the presenter:

- Was knowledgeable about the content
- Was engaging
- Presented material in an organized, easily understood manner

The second area of evaluation consisted of a series of Strongly Agree to Disagree questions regarding the impact of the event. The summarized results of those surveys are presented in Table 11.

**Table 11: HP Summarized Survey Results**

% of respondents that Strongly Agree/Agree	Survey Questions:
71% or more	the format and structure facilitated my learning
71% or more	the event met my expectations
76% or more	the atmosphere was enthusiastic and interesting
81% or more	the event was of high quality
81% or more	the event was relevant to my needs or my work
81% or more	the event increased my knowledge and skills in 1:1 computing
81% or more	the event prepared me to deliver this training to others
86% or more	the event information gained will help me impact student learning
90% or more	the event increased my understanding of the HP device and applications
90% or more	the event provided important resources for me
90% or more	the event helped me gain new knowledge, information and skills
95% or more	the event provided activities for me to share with my district

The majority of respondents reacted positively to the PD events and content provided by HP. For the evaluation measure utilized by HP see Appendix B.

MEPRI staff also evaluated HP PD events using several measures. This included:

- 1) Observations of select events
- 2) Survey 1: Train the Trainer – administered to participants that attended the Train the Trainer PD event(s) which targeted teacher leaders.
- 3) Survey 2: Follow-Up Survey – administered to participants that attended a face to face PD event.

MEPRI staff observed HP participants at a variety of PD events including webinars, face to face sessions at schools, ACTEM, the teacher summer 2013 conference, and the student spring 2014 conference. Similar patterns and trends were noted:

- Attendance varied by event, location, and role of participant.
- For the first half of the school year (September and October) it was observed that HP targeted various PD events on informing participants/educators on how to become familiar with the HP device and accompanying software.
- After October, HP addressed how to utilize the software in teacher’s practices, curriculum and lessons.
- Presenters were all observed to be knowledgeable regarding the device, software, and educational content discussed and how to implement the PD information into a teacher’s pedagogy and lesson(s).

Overall, all participants observed demonstrated that they were fully engaged, asked questions relevant to their practice, and actively engaged with the content or device. Of particular note, it was observed that participants appeared to have a short learning curve on using their new device, i.e. they quickly and actively learned how to manipulate, access and effectively use the device and software to integrate technology into their specified content and curriculum to impact student learning and access online learning tools.

In summer 2014, MEPRI surveyed those individuals that had attended any one of the two Train the Trainer sessions in September or October 2013 conducted by HP. See Appendix C for the survey. The purpose of the survey was threefold, to understand:

- (1) How teachers viewed the quality and relevance of the PD event they attended;
- (2) Whether teachers were sharing information learned at PD events with others in their schools; and
- (3) How or if teachers were using the information from the event in their practice.

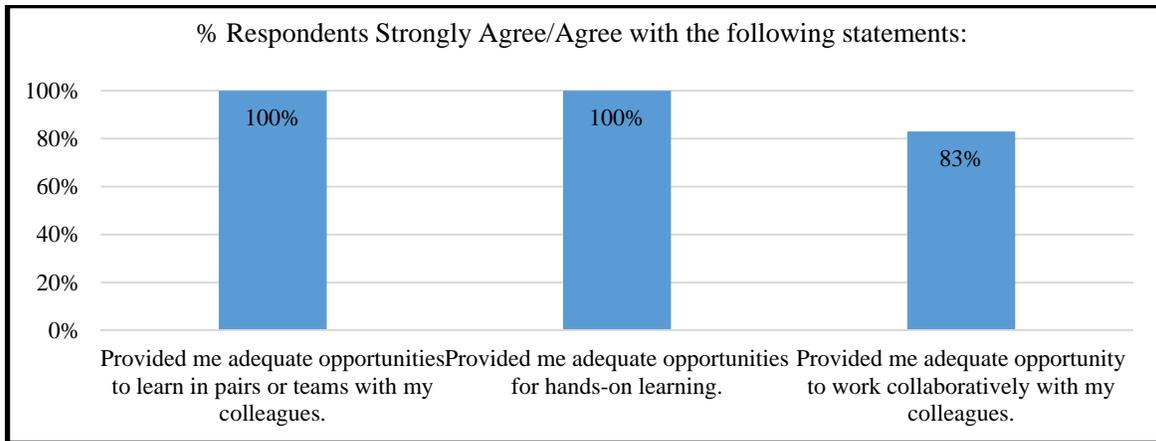
Thirty eight individuals, which is inclusive of all the individuals that attended one of the two sessions, were contacted. Seven individuals responded to the survey for an 18% response rate. All of the individuals identified themselves as a teacher leader and/or technology integrator. Table 12 on the next page indicates grade level(s) of the respondents. 73% or more of teachers identified themselves as a high school or middle school educator.

**Table 12: What grade level(s) do you work in?**

Grades	100%
All Grades (K-12)	9%
Elementary (K-5)	18%
Middle level (6-8)	55%
High School (9-12)	18%

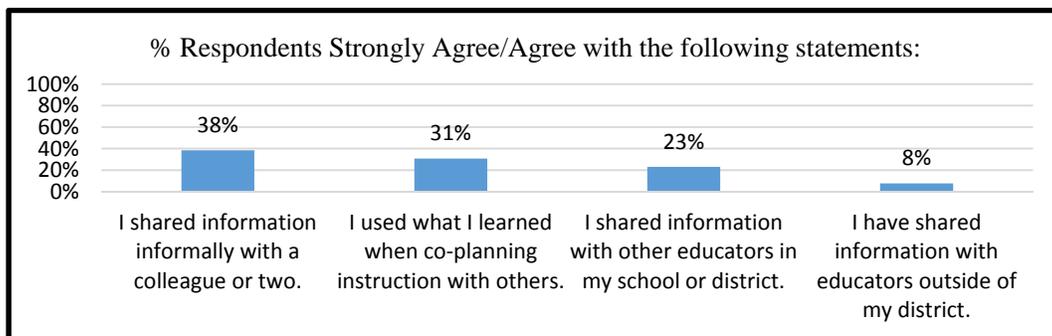
Participants reported on the quality of the PD event. They answered a series of Agree - Disagree questions. The following graph evidences their responses. 83% to 100% of respondents reported that they Strongly Agree/Agree that the PD provided adequate opportunities to learn in pairs or with colleagues, were provided hands on learning, and the opportunity to work collaboratively with colleagues.

**Graph 1: How teachers viewed the quality and relevance of the PD event they attended**



Teachers were asked a series of questions regarding how they had shared the information. 100% of the individuals indicated that they had used information from the event during 2013-14. Following is the breakdown on how that information was disseminated or shared at the school level.

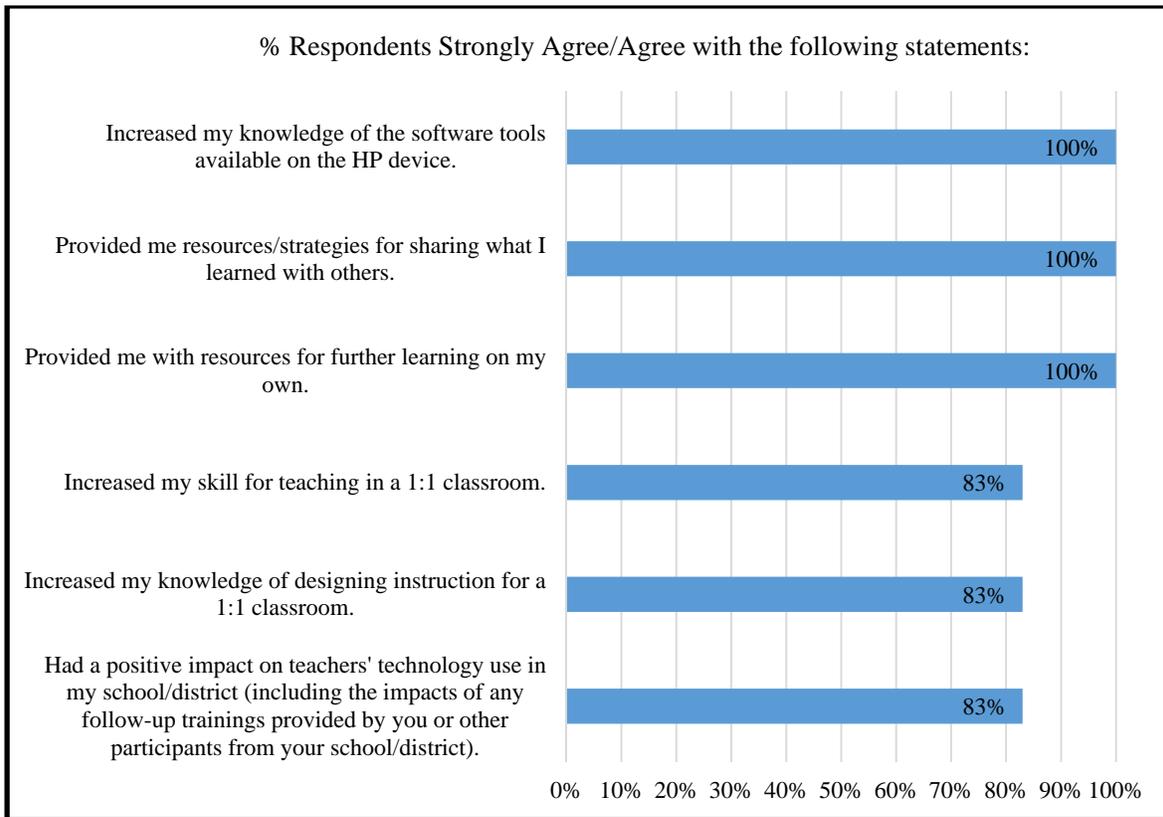
**Graph 2: Shared information from the PD event**



100% of respondents noted that they have shared the PD information in some capacity in their school and/or with colleagues.

Teachers were also asked a series of questions regarding how or if the information from the PD event was disseminated or integrated into their practice. The following graph shows the percentage of those responses.

**Graph 3: How or if teachers are using the information from the event in their practice and with their schools**



Between 83% to 100% of the respondents Strongly Agree/Agree that they are using the information from the PD event in their practice and with others in their school. In addition, respondents noted that the PD event increased their skill for teaching knowledge of designing instruction and knowledge of software tools in a 1:1 classroom.

### **Evaluation of Apple Inc. Provided Professional Development Activities**

The Apple professional development focused on supporting classroom teachers along with building and district leaders in those schools that had either an Apple iPad and/or Apple MacBook. Their plan outlined a hands-on approach including the use of online resources from iTunes U, face-to-face engagement in traditional workshop settings, classroom coaching and mentoring, and/or as part of the Leadership Cadres to support administrators. Apple provided Apps for the iPad and software for the MacBook, educational information on how to use the Apps and software, along with connections to learning targets, instructional designs, and assessment possibilities.

After the selection process, 85% of participating MLTI high schools and middle schools selected an Apple Device. Table 13 gives a breakdown of those devices by school type.

**Table 13: Total Number of Apple Schools by Their Device Choice**

Schools	iPad	MacBook
Middle School	102	59
High School	36	15
Middle/High School	11	8

A total of 231 schools selected an Apple Device. Of the 231, there were 149 schools that selected an iPad device and 82 Schools that selected a MacBook device for their students.

Table 14 summarizes Apple’s PD offered in Maine from June 2013 to July 2014.

**Table 14: Total Number of PD Events Offered by Apple**

Types of Events	Unique Events	Total Events
Face to Face	15	114
Webinar	8	29
Unknown	2	99

When comparing data from the MLTI listed PD events to the data provided by Apple there was a discrepancy. Apple listed two other events noted as “Coaching and Mentoring”, which occurred 82 times, and “MLTI-Other Conference” which occurred 17 times.

There were a total of 25 Unique PD events hosted by Apple which they disseminated in Maine 242 times. It is unclear if the data and evaluation results includes and represents Apple’s participation in the MLTI events identified as the Student conference, Teacher Summer Institute, ACTEM or MAMLE. No data was forwarded by MLTI regarding the “unknown” events listed by Apple. No information was forwarded to MEPRI regarding educators accessing online supports. In addition, Apple hosted a student conference and no information regarding this event was forwarded to MEPRI.

MLTI forwarded two data sets from Apple to MEPRI to aid in the evaluation process. The first set of data contained the names of events that Apple hosted which included the names of participants to those events. The second set of data consisted of aggregated data by respondents to those events and the raw write in responses by participants.

The aggregate data reflected demographic information and responses to two survey questions. These questions consisted of Likert scale options consisting of “Please rank your

overall degree of satisfaction from 1 - 6, where 1 is Most Satisfied, and 6 is Least Satisfied.” The aggregated data is presented below. The majority of respondents rated the workshop and presenter as Most Satisfied.

**Table 15: Apple Survey Response: Satisfaction With PD Event**

<b>Most Satisfied (Rated a 1 or 2)</b>	<b>Workshop</b>	<b>Workshop Specialist</b>
% respondents rated	85%	94%

The two open ended questions were presented as raw data for the 2013 - 2014 school year and consisted of “Briefly, how do you plan to use what you have learned with your students or in your school?” and “Any additional Comments.” This raw data was not identified to any specific event, individual, or PD and consisted of write in comments by individuals that had attended an Apple event. As such, due to the range and amount of responses (over 3000 comments), and lack of identifiers in that raw data, the comments could not be analyzed for evaluation purposes.

MEPRI staff also evaluated Apple PD events using several measures. This included:

- 1) Observations of select events
- 2) Survey 1: Apple Cadre Leadership – administered to participants that attended the Apple Cadre PD event(s) which targeted administrators.
- 3) Survey 2: Follow-Up Survey – administered to participants that attended a face to face PD event.

MEPRI staff observed Apple participants at a variety of PD offerings including ACTEM, the teacher conference, and the MLTI student conference. Different patterns and trends between participants were observed specific to device selection. Attendance varied by location and event, and role of participant.

For the first half of the school year (September and October) it was observed that Apple targeted various PD events on informing participants/educators on how to become familiar with their Apple device and accompanying software/applications. For those individuals that had iPads, participants exhibited a significant and varied learning curve. It appeared as if a majority of individuals had limited to no exposure on how to use a tablet device. PD events, as such, focused on learning very basic technology skills related to use of the device. Participants responses were observed to range from satisfied to unsatisfied with the pace and skill level at these PD events. For those individuals that had a MacBook, participants were noted to be well versed in the basic functions of their device and demonstrated advanced knowledge on how to

access and manipulate systems or programs. While some variance in skill was noted, no beginners or novices were evident.

After October, Apple addressed how to utilize the device and software into teacher's practices, curriculum, and lessons. For those individuals with an iPad a significant difference in skill level was noted. Most individuals were evident as beginners needing basic remediation on how to use the device, navigate between applications, and/or how to access the internet. Some content regarding use in educational settings was presented in context. For those individuals that had a MacBook, participants were observed to be well skilled in the use of software, access to the internet, and how to navigate and manage advanced settings into content and lessons. This included the Apple TV and other devices. Focus of the PD at these events consisted of how to incorporate educational technology and information into a teachers practice and to use with students.

Observations of the Apple PD events noted differences by participants which may have been attributed to their selected technology device. The presenters were all observed to be knowledgeable regarding the device, software, and educational content discussed and how to implement the information into a teacher's pedagogy and lesson(s). All participants observed demonstrated that they were fully engaged, asked questions relevant to their practice, and were actively engaged with the content or device.

In summer 2014, MEPRI surveyed those individuals that had attended one of four possible leadership trainings, called Apple Leadership Cadre Trainings. These Cadre sessions took place from September 2013 through January of 2014. The Cadre invited teams from both iPad and MacBook schools. Teams were designed to include principal/s administrators, teachers, and technology support personnel to help implement technology in schools.

The purpose of the MEPRI survey was threefold, to understand:

- (1) How the educators viewed the quality of the PD event they attended;
- (2) Whether and how educators are sharing information learned at PD events with others in their schools; and
- (3) How or if educators are using the tools and information to evaluate, analyze and possibly foster technology use in their school.

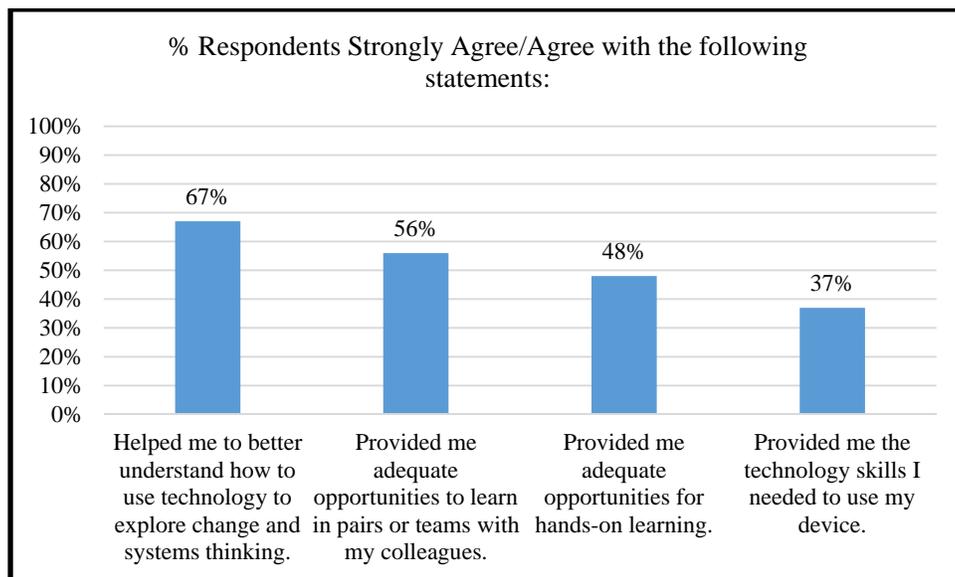
Of the 106 participants in either of the four different Cadre events who were contacted, 31 individuals responded for a 30% response rate. See Appendix D for survey. 78% of the individuals identified themselves as either a Superintendent or Assistant Superintendent,

Principal or Assistant Principal, or Teacher Leader or Technology Integration Coach. 57% work in either a high school or middle school and 22% work district wide or in all grades. 80% of the respondents identified the technology device their school utilized as an Apple iPad and 20% of the respondents identified the technology device their school utilized as an Apple MacBook. Results indicate that the majority of respondents were from Apple iPad schools.

In the case of the survey, the survey questions were crafted from Apple’s PD proposal which identified the goals and objectives of the Cadre PD event. The participants’ responses to the survey questions are presented below.

Participants were asked to rate the quality of the PD event. Graph 4 shows the percentage of responses from participants to the question "Overall, the Leadership Cadre Strand:"

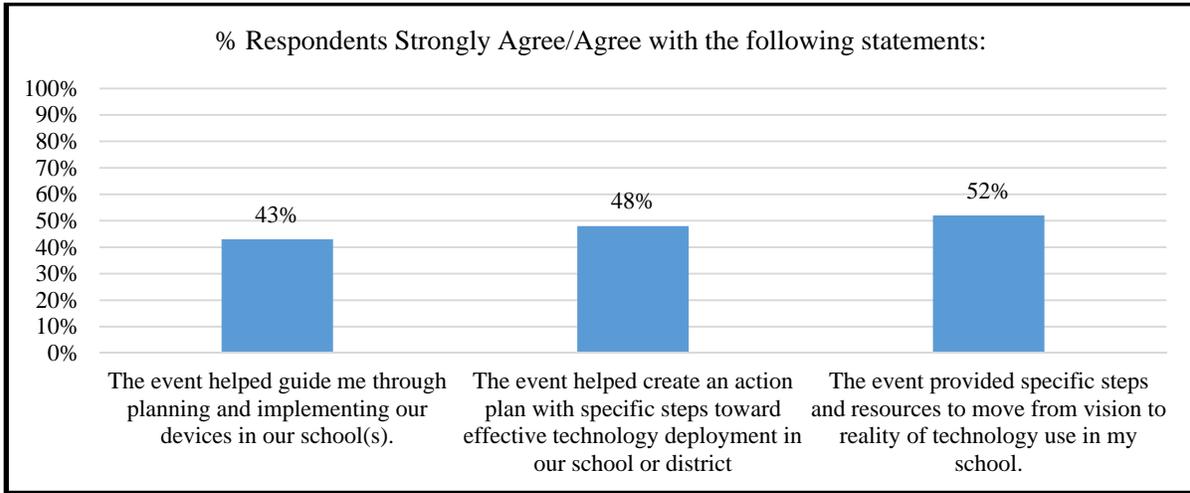
**Graph 4: Quality of the PD event**



Participants responses varied. More than one half Strongly Agree/Agree that the PD event helped them to better understand how to use technology to explore change and systems thinking, provided them opportunities to learn with their colleagues and provided adequate opportunities for hands on learning. Less than one half of the respondents Strongly Agree/Agree that they were provided the technology skills needed to use their device.

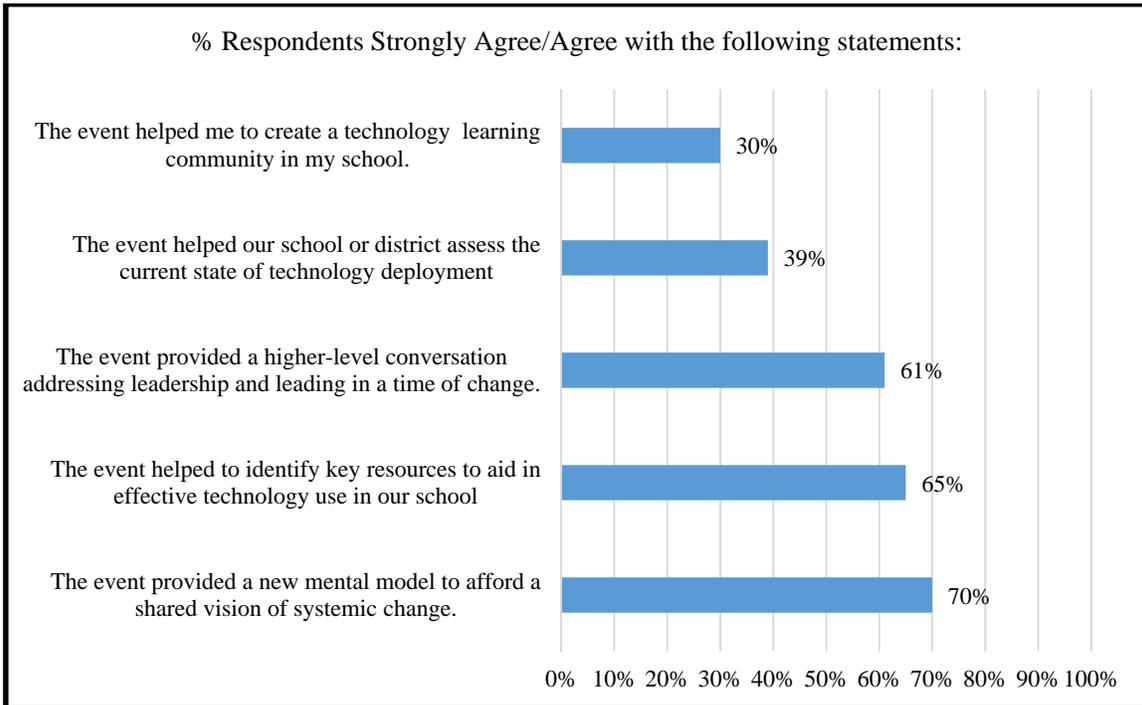
Participants were asked a series of questions regarding “How much they agree or disagree with the following statements regarding the Professional Development Cadre Event(s) in which they participated." The following graphs 5 - 7 present participants responses to questions regarding the PD impact on systemic change.

**Graph 5: Resources to Establish a School Wide Technology Plan**



Approximately one half of the respondents Strongly Agree/Agree that the event helped them plan and implement their devices, create an action plan towards technology deployment, and provided specific steps toward a technology vision of reality in their schools.

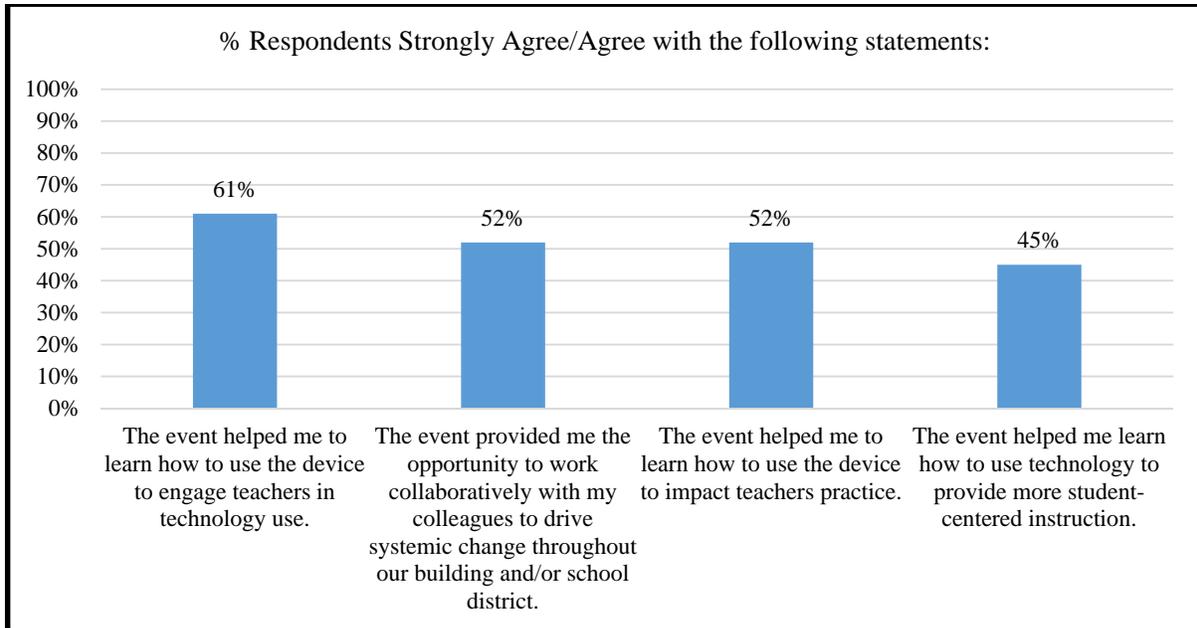
**Graph 6: Implementing change with teachers and staff**



In terms of implementation change the responses were mixed. More than one half of the respondents Strongly Agree/Agree that the PD event provided a new mental model of shared vision of change, help identify key resources, and provided a higher level of conversation to address change. However, approximately one third or less Strongly Agree/Agree that the PD

event helped them create a technology learning community in their school, and helped in district or state assessments with technology deployment.

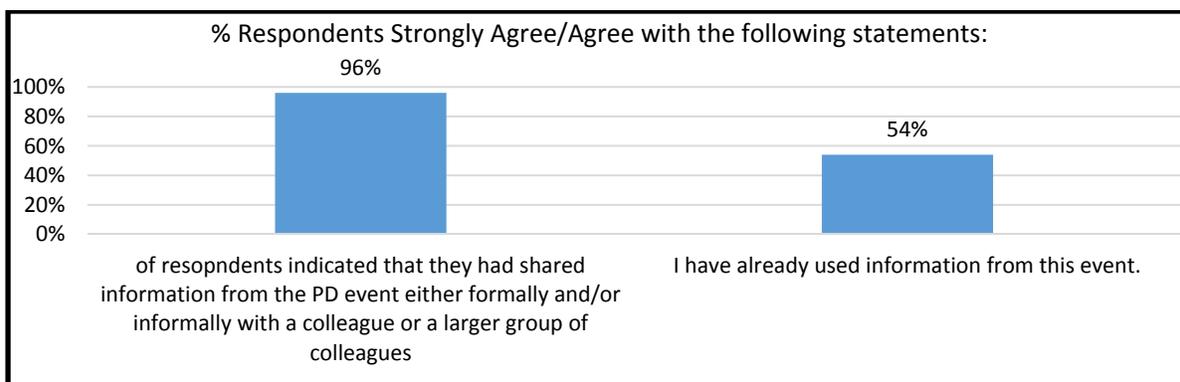
**Graph 7: Utilizing the Device to Impact Practice**



The results presented in Graph 7 are similar in that approximately one-half of the respondents Strongly Agree/Agree that the PD event provided collaborative work to drive change in their school, helped the respondent learn to use the device and engaged with teachers using the device, and to provide more student centered instruction.

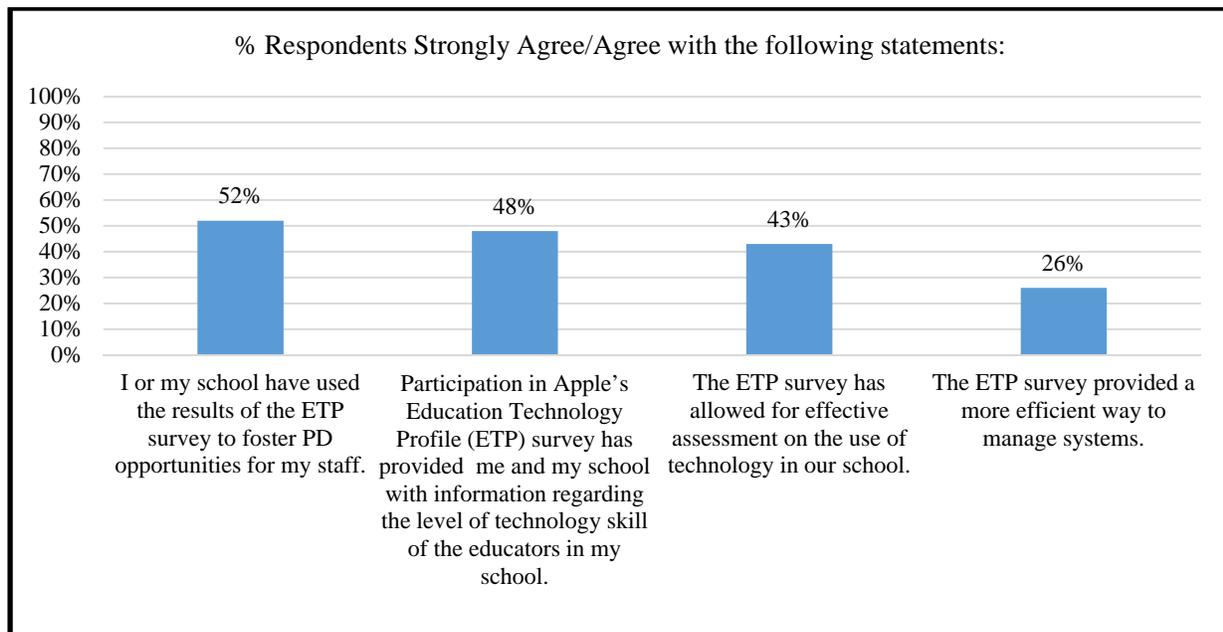
Respondents were asked whether “they had shared information learned from this events with others in their schools.” 96% of respondents indicated that they had shared information from the PD event either formally and/or informally with a colleague or a larger group of colleagues. However, approximately 54% of respondents indicated that they had already used information from the PD event.

**Graph 8: Shared information from the PD event**



A series of questions asked how or if educators are using Apple provided PD tools and information to evaluate, analyze and possible foster technology use in their school. The tools provided by Apple to the participants at the PD event consisted of the use of Apple’s Education Technology Profile Self-Assessment Survey Report (ETP). This survey was designed by Apple to help schools gather information on teacher technology practices across settings and venues to design a professional development plan that best meets their needs. Graph 9 breaks down how respondents utilized this tool in their school.

**Graph 9: Use of ETP**

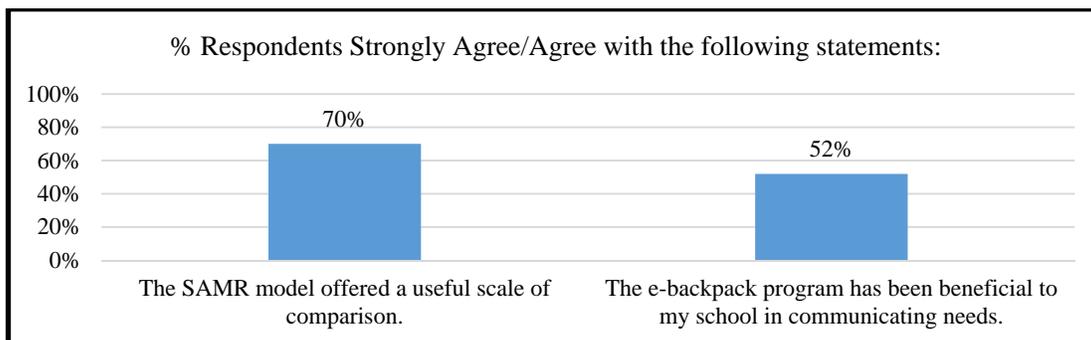


Respondents indicated varying results to the ETP survey tool. Approximately one-half Strongly Agree/Agree that they have used the ETP survey to foster PD opportunities with staff and that the ETP survey provided them and their school with information regarding the level of technology skill of the educators in their school. However, 43% strongly Agree/Agree that the ETP survey has allowed them to assess their use of technology in their school, and 26% Strongly Agree/Agree that the ETP has provided a more efficient way to manage systems.

Graph 10 details respondents’ answers to questions related to “compelling evidence of success and a flexible learning environment” as it relates to the SAMR model and the e-Back Pack software provided to schools. The SAMR model is the State of Maine approved technology scale/model used to inform teachers on how they are using technology with students, and the Apple e-backpack software provides online sharing and collaboration. As indicated, 70% of

respondents Strongly Agree/Agree that the SAMR model is a useful comparison scale. Approximately one half of respondents Strongly Agree/Agree that the e-backpack program has been beneficial to their schools communication needs.

**Graph 10: Use of SAMR and E-BackPack**



### **Delayed Post Follow Up Survey of Professional Development Activities**

In January 2014, MEPRI conducted a follow-up survey of teachers across Maine. The survey targeted those teachers that had attended a professional development (PD) face to face event in the summer or fall of 2013 specific to their device. The purpose of the survey was to provide evaluation data on the implementation of the new devices in the first six months. As such the survey focused on three areas:

- (1) How teachers viewed the quality and relevance of the PD event they attended.
- (2) Whether teachers are sharing information learned at PD events to others in their schools.
- (3) How or if teachers are using the information from the event in their practice.

Participants who attended more than one PD event were asked to base their responses on the event that had most impacted them. Due to the new technology landscape of different devices, results have been broken out by HP Probook, Apple iPad or Apple MacBook. Findings presented here are representative of respondents from 1:1 school environments that are using a technology device. See Appendix E for survey.

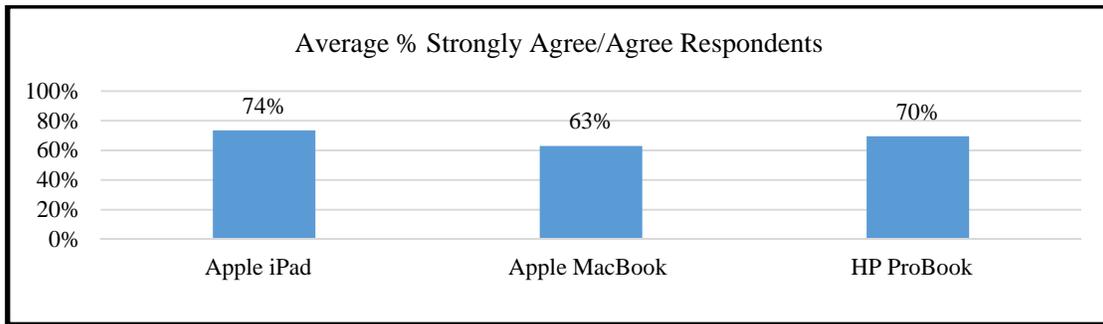
- **HP** - One hundred twenty four unique individuals were contacted and 40 individuals responded for a response rate of 32%. Approximately 75% of the respondents identified themselves as a teacher or teacher leader.
- **Apple** – One thousand four hundred eighty five unique individuals were contacted who had attended a PD event. A total of 435 individuals responded for a response rate of 29%.

The majority of respondents were iPad users. Following are the results broken down by device:

- **MacBook** –Approximately 78% of the respondents identified themselves as a teacher or teacher leader.
- **iPad** –Approximately 80% of the respondents identified themselves as a teacher or teacher leader.

Graphs 11 & 12 show the results of a set of Agree - Disagree survey questions asked of participants to rate the quality of the PD event and on the potential use of the device and PD information with students and in their practice. These graphs summarize the respondents' percentages to a series of Strongly Agree/Agree questions into an average. Graph 11 shows the averaged responses to a series of questions related to the quality of the PD event.

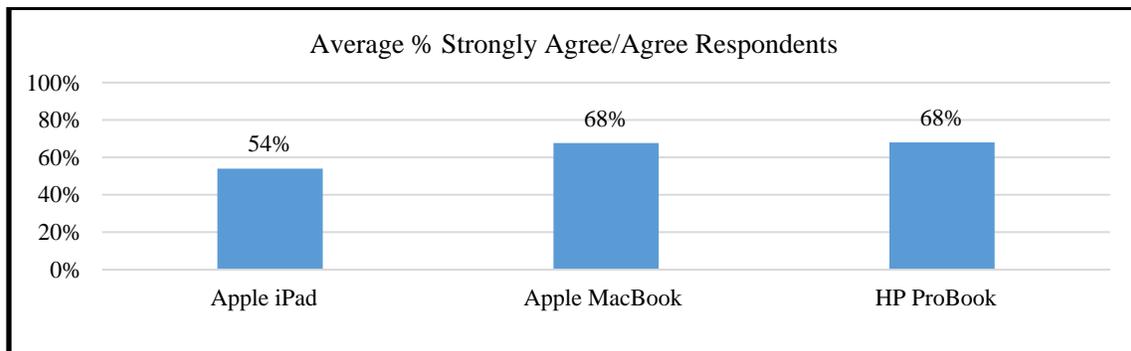
**Graph 11: Quality of PD Event**



More than one half of respondents rated the PD event favorably. They noted that the PD event provided hands on learning, provided them with the technology skills to use their device, provided them the opportunity to learn in pairs, and that they could connect the information to their content area. Results were consistent within group.

Graph 12 reports respondents level of agreement to a series of questions regarding the impact of the PD event on their use of technology with students.

**Graph 12: Impact of PD Event on Student Use**



Results were similar between MacBook and HP Probook groups with 68% of respondents reporting that they Strongly Agree/Agree that the PD event provided them a way to tailor instruction to meet students’ individual needs, improve student learning, and use technology in a more student centered instruction. Only one half of the iPad group Strongly Agree/Agreed with this series of questions.

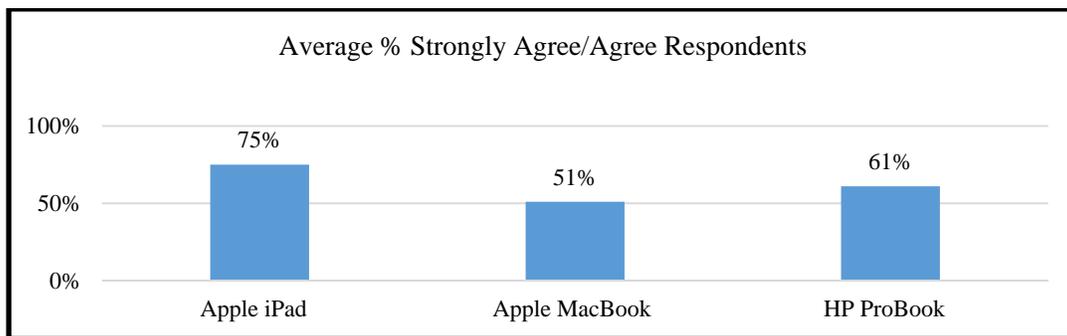
Teachers were asked “Whether they had shared information learned at PD events with others in their school(s).” The following table show the results by provider. 74% or more of the respondents indicated that they have shared information in some capacity and/or that they have already used information from the PD event.

**Table 16: Use and Sharing PD Information in Schools and With Colleagues**

Questions	Apple iPad	Apple MacBook	HP ProBook
I have shared information from the PD event either formally and/or informally with a colleague or a larger group of colleagues.	82%	90%	98%
I have already used information from the PD event.	77%	80%	74%

Finally, teachers were asked a series of Agree/Disagree questions regarding using the PD content in their practice specific to lesson management and development and with students. The following graph evidences their averaged Strongly Agree/Agree responses to those questions.

**Graph 13: Impacted on Lessons and Students**



One-half or more of respondents from all groups Strongly Agree/Agree that they used information from the PD event in their class(es), the information created the opportunity to provide more enriched content, allowed for positive student collaboration, made the lesson more engaging for their students, altered a lesson(s) to be more effective, provided scaffolding to learn a new concept or for lesson(s), allowed them to effectively assess student learning, allowed them

to align the lesson or curriculum to the common core standards, and provided a more efficient way to manage the lesson. Responses were consistent within groups.

## **Overall Summary**

Data collected and presented in this report is complex. There were 65 Unique PD offerings by MLTI, Apple, and HP. Events varied from Face to Face events to webinars. Those PD offerings were disseminated over 271 times for the 2013 - 2014 school year. MLTI and vendors employed their own evaluations to those PD offerings as per their contract requirements. MEPRI received those evaluations and analyzed them when possible. Following is a summary of the report findings by results:

### **Summary of MLTI PD Impacts**

- ***Did the participants rate the PD as well presented and taught?***

Yes, observations noted and the participants rated the PD as being well presented and taught.

- ***Did the participants understand and increase their knowledge due to the PD event?***

Yes, observations noted and the majority of the participants indicated that the PD event increased their knowledge of technology in education.

- ***Did the participants indicate that they used or will use and apply knowledge or skills from the PD event into their practice?***

Yes, participants indicated that they were taking away educational technology skills to be applied in their practice.

### **Summary of HP PD Impacts**

- ***Did the participants rate the PD as well presented and taught?***

Yes, observations noted and respondents rated HP's PD events very favorably. They noted that the presenters were well versed, provided hands-on learning and collaboration and that there were ample resources and positive engagement at these events.

- ***Did the participants understand and increase their knowledge due to the PD event?***

Yes, observations and surveys reported that the respondents had learned the skills and knowledge necessary at the PD event(s).

- ***Did the participants indicate that they used or will use, apply knowledge or skills, and share that knowledge from the PD event with others or in their practice?***

Yes, participants indicated that they were taking away educational technology skills to be applied in their practice and that they were actively disseminating and/or sharing information with their colleagues.

### **Summary of Apple PD Impacts**

- ***Did the participants rate the PD as well presented and taught?***

Yes, observations noted and respondents rated Apple's PD events very favorably. They noted that the presenters were well versed, provided hands-on learning and collaboration, and that there was ample resources and positive engagement at these events.

- ***Did the participants understand and increase their knowledge due to the PD event?***

Mixed results. A majority of respondents indicated that they had been provided a new mental model of shared vision of change, help identify key resources and been provided a higher level of conversation to address change. It is noteworthy that one half of the respondents indicated that they had increased their knowledge or skill in the Apple Cadre Event.

- ***Did the participants indicate that they increased their educational and technology knowledge or skills?***

Mixed results. One-half of the participants from the Apple Cadre event indicated that they were taking away educational technology skills to be applied in their practice and that they were actively disseminating and/or sharing information with their colleagues.

- ***Did the participants indicate that they used or will use, information from the PD event with others or in their practice?***

Mixed results. Participants to the Apple Cadre event indicated at a very high level that they had shared information with their colleagues. However, only one half indicated that they had used the information from the PD event. In addition only one half indicated that they had used the assessment tools (ETP survey) in the PD event.

### **Summary of Delayed Post Follow Up survey of PD Activities**

- ***Did the participants rate the PD as well presented and taught?***

Yes. A majority of the participants, regardless of device type found their PD event to be well presented and taught, allowing hands on learning and collaboration.

- ***Did the participants understand and increase their knowledge due to the PD event?***

Yes. A majority of the participants, regardless of device type indicated that their technology skill was positively impacted by the PD event.

- ***Did the participants indicate that they used or will use information from the PD event with students or in their lessons/practice?***

Mixed results. A majority of Apple iPad and HP Probook respondents Strongly Agree/Agree that they were using information from their subsequent PD event in their practice/lessons and with students. Only one half of MacBook respondents indicated that they were using their technology device in this capacity.

In review, the majority of participants, regardless of device type, reported that the PD event(s) or activity(s) they participated in were well presented. HP had the most positive feedback from respondents in all other areas assessed. The majority of HP participants agreed that the PD event increased their understanding and knowledge, that they shared that information

at their school and with colleagues, and that they implemented the information directly into their practice and used with students. Apple participants provided mixed results in these areas, depending upon on the PD event they attended and/or the device type they utilized.

### **Limitation of the Data**

It is important to note some key limitations to the data. MEPRI was limited in its review and/or evaluation by the information MLTI collected and forwarded. This information did not include or reflect the scope of PD resources and options available to schools, educators, and students in Maine. For example, online resources, in school PD supports, and other MLTI sponsored events were not included in this report due to a lack of available assessment data. In addition, assessment instruments by vendors and MLTI were in some cases not complete, brief, and non-informative for evaluation of State and program needs. This prohibited evaluation of those assessments for possible trends and patterns. Another factor which may have impacted results and reporting is participation. Low attendance to PD activities and events was observed to be a common occurrence in a variety of venues by all vendors and MLTI. In addition, results provided could have been skewed by attendance, i.e. one person could have attended many events. As such, the results must be viewed with considerable caution as results may represent an incomplete picture of PD disseminated in Maine and how, where, or if educators are accessing and using that information.

However, in lieu of the many limitations of the data, survey results from vendors and MLTI triangulate to MEPRI surveys and observations. Moving forward, it will be important to ongoing development and implementation of the program to obtain relevant and system-wide data.

### **Recommendations**

MEPRI has a long and close history with MLTI. As the primary evaluator of the program of 12 years MEPRI can look back to past experiences to guide future evaluations. This in-depth knowledge provides MEPRI insight into conducting evaluations that are relevant, insightful, and respectful to the program. As technology continues to grow and become even more of a primary component of teaching and learning MEPRI's experience and guidance could provide key answers to support success of technology use in schools. However, to continue to work at this capacity MEPRI has noted certain key areas that need to be addressed. In review of the data and

current evaluation several questions are unanswered due to the incomplete data provided to MEPRI.

- Why didn't more teachers or educators participate in the sessions provided?
- Did teachers or educators access other supports not identified or included in the data? If they have, what where those supports, how often did they access the supports, and were they effective?
- Why did certain teachers or educators indicate that the information from the PD event did not increase their knowledge and skills, and that they did not use that information in their practice or with students and vice versa why did certain teachers and educators indicate that they had used that information?
- What information, support, or feedback do schools, administrators, or teachers desire to implement technology into systems, practices, and/or use with students?

To aid in providing accurate and reliable data to inform program needs at the state and local level several recommendations are made based on these questions and on an external evaluation model that focuses on collecting and analyzing evaluation results to provide summative and formative information. These are:

1. More information should be provided regarding MLTI Leadership goals and objectives as it aligns to a vision of technology use statewide. This includes activities and events that occur at a state level to foster the use of technology in schools.
2. To reflect the needs of local schools and inform the State on program needs there is a need for direct and in-depth work with vendors and MLTI staff. For example there is a need for a common assessment instrument between vendors and MLTI. This work will be central to identifying the varying needs of educators by school and/or device type.
3. Provide access to information in all areas that educators assess in regard to technology and education to effectively assess impacts across the program. For example, online resources, school visits, and activities and events hosted in other venues or with other agencies would provide a broader scope of the program and how to support technology use in schools.
4. Access to assessments utilized by vendors. Due to the new technology landscape, vendors often collect information to assess needs and supports with educators relevant to their device. Without this information it is difficult to clarify a more comprehensive evaluation of the most recent MLTI deployment and professional development activities at a school level.

To promote and encourage technology use in schools, evaluation data should be utilized not only to assess programs but to provide information on all levels to drive effective supports to attain success. By utilizing MEPRI's recommendations suggested above, MLTI may have a better understanding of how to use their supports to attain this goal.

## Appendix A

### MLTI Surveys

- Summer 2013 Teacher Conference
- MLTI STEM Evaluation
- MLTI Math PD Evaluation
- MLTI GIS Evaluation
- MLTI Flipping the Classroom Evaluation
- MLTI Digital Content Evaluation

#### **MLTI 2013 Summer Institute Evaluation**

2013 Summer Institute Evaluations

*Thanks for coming!! We are so glad to have been able to offer you this opportunity this summer.*

Please evaluate your cohort. Your thoughts help us better meet your needs.

1. Which cohort are you evaluating? (if you are unsure of the title, please check with your facilitator).

Assembling the Puzzle: Five tech Pieces for education

Leveraging the Next Gen Science Standards with Tech

Increasing Student Engagement with CCSS Mathematics using Geogebra

Once upon a time in a digital world

Digital Access

2. If 10 is “Fantastic,” this session generally was .... (drop down box of scale 1 to 10)

How could the session have been better?

3. The presenter(s) was/were well prepared. 10 being “very together.”

Any suggestions to the presenter(s)?

4. This session has immediate application to my teaching. 10 is a perfect match.

What could have improved the fit?

5. I found tools or activities that I will take back to my classroom. 10 is a big thumbs up!

What else would you have liked to learn?

6. On a scale of 1 to 10, with 10 being “nirvana”, the session classroom was....

How could the facilities be better?

7. Would you like to see follow up for your cohort (to be done in late summer/fall)?

If yes, what format would work best for you (webinar, face to face, blog, etc)

8. Any other comments or suggestions are greatly welcomed!

**MLTI STEM Evaluation**

<b>STEM Evaluation</b>
1. Date of session (mm/dd/yyyy format)
2. School
3. Grade Level
4. Subject(s)
5. I recognize that Citizen Science projects are aligned with NGSS and the 8 Practices.
Strongly Agree/ Agree/ Strongly Disagree/ Disagree
6. I am familiar with the projects in Zooniverse and how they might be used for teaching and learning STEM:
Strongly Agree/ Agree/ Strongly Disagree/ Disagree
7. I was introduced to other components of Zooniverse (Zooteach, Zooniverse Navigator):
Strongly Agree/ Agree/ Strongly Disagree/ Disagree
8. Here's how I plan of using what I've learned from this workshop in my teaching:
9. This is what I need to help me further in using Zooniverse/Citizen Science in my teaching:

**MLTI Math PD Evaluation**

<b>Math PD Evaluation</b>
1. What session did you attend?
2. Date of session (mm/dd/yyyy format)
3. School
4. Grade Level
5. Subject(s)
6. Please rank your overall degree of satisfaction with the session facilitator(s) from 1-6, where 6 is Most Satisfied and 1 is Least Satisfied.
1 2 3 4 5 6
7. What was the most beneficial part of the session agenda?
8. What was the least beneficial part of the agenda and how could it be improved?
9. Please rank your overall degree of satisfaction with the session from 1-6, where 6 is Most Satisfied and 1 is Least Satisfied.
1 2 3 4 5 6
10. What would help you implement what you learned in this session?
11. General comments and ideas for future sessions.

GIS
Q1 Date of session (mm/dd/yyyy format)
Q2 school
Q3 Grade Level
Q4 Subject(s)
Q5. I understand the uses and applications of Geographic Information Systems for the classroom:
Q6. I understand how to use ArcGIS.com mapping features:
Very Well /Well /Somewhat Marginally
Q7. I understand how to use the sharing and group components of ArcGIS.com:
Q8. Here's how I plan of using what I've learned from this workshop in my teaching
Q9. This is what I need to help me further in using GIS in my teaching:

MLTI Flipping the Classroom Evaluation
Q1. Date of session (mm/dd/yyyy format)
Q2. school
Q3. Grade Level
Q4. Subject(s)
Q5. I understand how a flipped classroom can enhance student learning.
Q6. I can use digital tools to manage a flipped classroom effectively.
Q7. I plan to use elements of the flipped classroom in the following ways:
Q8. I will need further help in creating a flipped classroom in these ways:

MLTI Digital Content Evaluation
Q1. Date of session (mm/dd/yyyy format)
Q2. School
Q3. Grade Level
Q4. Subject(s)
Q5. I am able to promote the use of digital content creation in my classroom more effectively.
Q6. I feel confident I can use digital content creation tools to further teaching and learning.
Q7. The tools I will use in my classroom right away are:
Q8. The tools I will need further help with are:

## APPENDIX B

### HP Evaluation measure:

Please take a few moments to evaluate this session. Your answers will greatly assist us in determining how to improve future professional development offerings.

1. General Information

- (Optional) Name:
- District/School
- Session Title
- Position Title/Role
- Date
- Trainer

2. To what degree do you agree with the items below? Rate the items using the scale below.  
(5 Strongly Agree - 1 Strongly Disagree)

The presenter:

- was knowledgeable about the content1.
- was engaging
- presented material in an organized, easily understood manner

3. To what degree do you agree with the items below? Rate the items using the scale below.  
(5 Strongly Agree - 1 Strongly Disagree)

The Session/Workshop:

- was of high quality.
- was relevant to my needs or my work.
- format and structure facilitated my learning.
- atmosphere was enthusiastic and interesting.
- helped me gain new knowledge, information and skills.
- increased my understanding of the HP device and applications.
- information gained will help me impact student learning.
- provided important resources for me.
- provided activities for me to share with my district.
- met my expectations.

4. How will you use what you have learned with your district?

5. What was the most useful and not useful part of this professional development? Why?

6. How do you feel student learning will be impacted as a result of your participation in this program?

7. What additional professional development support would be helpful?

8. Additional feedback to share?

## APPENDIX C

### HP Train the Trainer

This survey is being conducted by an evaluation team from the Maine Education Policy Research Institute (MEPRI) at the University of Southern Maine. You are being asked to complete a short survey because you participated in either HP's "Transforming Learning with 1:1" or in the Microsoft "Innovative Educator" event during the 2013 2014 school year. This survey will help us understand the impact of the professional development you attended. Please base your survey responses only on your experiences in the professional development event(s).

It should take less than 10 minutes to complete this survey. All information will be kept confidential. Please use the buttons labeled "<< Prev" and "Next >>" to navigate the survey. Should you have questions, please send an email to [cepare@usm.maine.edu](mailto:cepare@usm.maine.edu).

Thank you for your participation.

### MLTI HP Professional Development Follow Up Survey

1. What is your primary role related to the MLTI program?  
(Please select all that apply)

- Superintendent or Assistant Superintendent
- Principal or Assistant Principal
- Classroom Teacher
- Teacher Leader or Technology Integration Coach
- Technology Support Lead
- Librarian
- Other
- Other (please specify)

2. What grade levels do you work in? Check all that apply.

- All Grades (K-12)
- Elementary (K-5)
- Middle level (6-8)
- High School (9-12)
- Other (please specify)

3. Which of these training programs did you participate in during 2013/14?

- Intel "Transforming Learning with 1:1" (Sept 24, 25, Scarborough)
- Microsoft "Innovative Educator" (Sept 30, Oct 1, Bangor)
- I did not participate in any of these events
- Other event in which I participated:
- Other (please specify)

4. Which statement best describes any changes in your practice as a result of this event?

- I used information from this event during 2013-14.
- I have not used information yet, but plan to use what I learned in the next academic year.
- I have not used any information from the event for the 2013-2014 school year.
- If you do have not used any information for the 2014-2015 school year, please explain why:

5. Have you shared any of the information you learned from the PD event? If so, how did you share the information? (Please select all that apply):

- I have not shared any information with others.
- I shared information informally with a colleague or two.
- I used what I learned when co planning instruction with other members of my team.
- I shared information with other educators in my school or district through a formal presentation/training session [i.e. as required to receive stipend].
- I have shared information with educators outside of my district.
- Other – please specify
- Other (please specify)

6. Overall, the PD event I attended: (scale: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree)

- Provided me adequate opportunities to learn in pairs or teams with my colleagues.
- Provided me adequate opportunity to work collaboratively with my colleagues.
- Provided me adequate opportunities for hands-on learning.
- Increased my knowledge of the software tools available on the HP device.
- Increased my knowledge of designing instruction for a 1:1 classroom.
- Increased my skill for teaching in a 1:1 classroom.

- Provided me with resources for further learning on my own.
- Provided me resources/strategies for sharing what I learned with others.
- Had a positive impact on teachers' technology use in my school/district (including the impacts of any follow-up trainings provided by you or other participants from your school/district).
- Other (please specify)

7. What additional support or professional development topics would help your school to further improve its use of the HP technology devices next year?

Thanks for your time and effort!

## APPENDIX D

### MEPRI Apple Cadre Survey

This survey is being conducted by an evaluation team from the Maine Education Policy Research Institute (MEPRI) at the University of Southern Maine. You are being asked to complete a short survey because you participated in a MLTI Professional Development (PD) Leadership event during the 2013 2014 school year. This survey will help us understand the impact of the professional development in which you participated. Please base your survey responses only on your experiences in the leadership event(s). It should take less than 10 minutes to complete this survey. All information will be kept confidential. Please use the buttons labeled "<< Prev" and "Next >>" to navigate the survey. Should you have questions, please send an email to [cepare@usm.maine.edu](mailto:cepare@usm.maine.edu).

Thank you for your participation.

### MLTI Spring 2014 Professional Development Leadership Follow Up Survey

1. What is your primary role related to the MLTI program?
  - Superintendent or Assistant Superintendent
  - Principal or Assistant Principal
  - Classroom Teacher
  - Teacher Leader or Technology Integration Coach
  - Technology Support Lead
  - Librarian
  - Other
  - Other (please specify)
  
2. What grade levels do you work with (check all that apply)?
  - All Grades (K12)
  - Elementary (K5 or K6)
  - Middle School (6 -8)
  - High School (9- 12)
  - Other
  - Other (please specify)
  
3. What 1:1 technology device did your school select for your students?
  - Apple iPads
  - Apple MacBook Airs
  - Other
  - Other (please specify)
  
4. How many of the Apple Leadership Cadre Training sessions did you attend?
  - One Session
  - Two Sessions
  - Three Sessions

- Four Sessions
- Other
- Other (please specify)

5. Overall, the leadership cadre strand: (scale: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree)

- Provided me adequate opportunities to learn in pairs or teams with my colleagues
- Provided me adequate opportunities for hands-on learning.
- Provided me the technology skills I needed to use my device
- Helped me to better understand how to use technology to explore change and systems thinking.
- Other (please specify)

6. Please indicate how much you agree or disagree with the following statements regarding the Professional Development Cadre Event(s) in which you participated: (scale: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree):

- The event helped guide me through planning and implementing our devices in our school(s).
- The event helped me to create a technology learning community in my school.
- The event provided a new mental model to afford a shared vision of systemic change.
- The event provided specific steps and resources to move from vision to reality of technology use in my school.
- The event provided a higher level conversation addressing leadership and leading in a time of change.
- The event helped to identify key resources to aid in effective technology use in our school
- The event helped me learn how to use technology to provide more student centered instruction.
- The event helped our school or district assess the current state of technology deployment
- The event helped create an action plan with specific steps toward effective technology deployment in our school or district
- The event provided me the opportunity to work collaboratively with my colleagues to drive systemic change throughout our building and/or school district.
- The event helped me to learn how to use the device to impact teachers practice.
- The event helped me to learn how to use the device to engage teachers in technology use.
- Other

7. How have shared information you learned from the PD event? (please select all that apply):

- I have not shared any information with colleagues.

- I shared formally with the educators in my school through a formal presentation to review technology goals and objectives
- I shared formally with a larger group of colleagues at my school, such as presenting at a PLC or staff meeting.
- I have discussed and shared information formally with my technology staff
- I have discussed and shared information informally with my technology staff
- I shared information informally with a colleague or two.
- I have shared information informally with other administrators in other schools or districts.
- Other – please specify

8. Which statement best describes any changes in your practice as a result of this MLTI PD event?

- I have already used information from this event.
- I plan to use what I learned for the next academic school year 20142015.
- I have not used any information from the event.
- Other (please specify)

If have not used any information, please explain why:

9. Please indicate how much you agree or disagree with the following statements (Compelling Evidence of Success AND Flexible Learning Environment). (Scale: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, N/A):

- Participation in Apple’s Education Technology Profile (ETP) survey has provided me and my school with information regarding the level of technology skill of the educators in my school.
- I or my school have used the results of the ETP survey to foster PD opportunities for my staff.
- The ETP survey has allowed for effective assessment on the use of technology in our school.
- The ETP survey provided a more efficient way to manage systems.
- The SAMR model offered a useful scale of comparison
- The ebackpack program has been beneficial to my school in communicating needs.
- Other?
- Other (please specify)

10. What additional support would best help your school to make progress on your technology goals?

Thanks for your time and effort!

## APPENDIX E

### Delayed Post Follow Up Survey of Professional Development Activities

This survey is being conducted by a research team from the Maine Education Policy Research Institute (MEPRI) at the University of Southern Maine. You are being asked to complete a short survey because you participated in a MLTI Professional Development (PD) 2013 summer or fall event. This survey will help us understand the impact of the professional development on your knowledge and practice. When answering the questions please pick the PD you felt had the most impact on you and your practice. Please base your survey responses only on your experiences in that event.

It should take less than 10 minutes to complete this survey. All information will be kept confidential. Please use the buttons labeled "<< Prev" and "Next >>" to navigate the survey. Should you have questions, please send an email to [cepare@usm.maine.edu](mailto:cepare@usm.maine.edu). Thank you for your participation.

### MLTI Spring 2014 Professional Development Follow Up Survey

1. What is your primary role related to the MLTI program?
  - Teacher
  - Teacher Leader/ Technology Integrator/ Curriculum Coordinator
  - Librarian
  - Administrator
  - Other
  - Other (please specify)
  
2. What grade levels do you work in?
  - Middle School
  - High School
  - Both Middle and High school
  - Elementary (K5 or K6)
  - Districtwide position
  - Other
  - Other (please specify)
  
3. What 1:1 technology device did your school select for your students?
  - Hewlett Packard (HP) laptop computer
  - Apple iPad
  - Apple MacBook Air
  - Other
  - Other (please specify)
  
4. Which PD event did you attend that you would like to evaluate today?
  - iPad iOS MLTI Jumpstart (various locations)

- MacBook Air OS X MLTI Jumpstart (various locations)
- 2013 MLTI Summer Institute Bowdoin College, Brunswick
- I did not attend a PD Event
- I attended a different PD Event
- Please specify which PD event you attended

5. What was the most useful aspect of the PD event you attended? (Scale: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree):

- The PD event provided me adequate opportunities to learn in pairs or teams with my colleagues.
- The PD event provided me adequate opportunities for hands on learning.
- I was able to connect the PD to the subjects/ content areas I teach.
- The PD event has helped me to improve students' learning.
- The PD event provided me a way to tailor instruction to meet students' individual needs.
- The PD event helped me learn how to use technology to provide more student centered instruction.
- The PD event provided me the technology skills I needed to use my device.
- Other
- Other (please specify)

6. If you have shared any of the information you learned from the PD event with other teachers or staff at your school, how did you share the information? (please select all that apply):

- I have not shared any information with colleagues.
- I shared formally with a larger group of colleagues, such as presenting at a PLC or staff meeting.
- I shared informally with a colleague or two.
- Other – please specify
- Other (please specify)

7. Which statement best describes any changes in your practice as a result of this MLTI PD event?

- I have already used information from this event.
- I plan to use what I learned by the end of this academic year.
- I plan to use what I learned in the next academic year.
- I do not plan to use any information from the event.
- I am not sure if I will use any information from the event.
- If you do not plan to, or are not sure if you will use any information, please explain why:

8. If you used information from the PD event in your class, has the information: (Scale: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, N/A):

- altered a lesson(s) to be more effective?
- provided scaffolding to learn a new concept or for a lesson(s)

- had no positive effect on the lesson over your regular lesson?
- provided a more efficient way to manage the lesson?
- made the lesson more engaging for your students?
- created the opportunity to provide more enriched content?
- allowed you to align the lesson or curriculum to the common core standards?
- allowed you to effectively assess student learning?
- allowed for positive student collaboration?
- Other?
- Other (please specify)

9. What additional PD support would help you to apply or use what you learned?

Thanks for your time and effort!