

Evaluation of the Nevada Educational Technology Implementation Grant: 2014 – 2015 Grant Cycle

Summative Report Submitted to the Nevada Commission on Educational Technology and the Nevada Department of Education

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9.2.2015

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¹ For the purposes of this report, the grant awards were divided into two groups. Group 1 consisted of the following awards: Washoe, Elko, Lyon, Carson, Churchill, Douglas, White Pine, Mineral, and eLearning for Educators (nine grant awards). The evaluation related to these eight awards was developed through the joint work of Dr. Jacque Ewing-Taylor and Dr. Bill Thornton from the University of Nevada, Reno. Group 2 consisted of the following awards: Clark, Nye, and Lincoln (three grant awards). The evaluation related to these three grant awards was developed by Dr. P.G. Schrader from the University of Nevada, Las Vegas.

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Executive Summary

The Commission on Educational Technology (Commission) awarded 12 grants for FY14 and FY15. The Nevada State Educational Technology Implementation Fund Grants (SETIF) totaled approximately \$3.7 million. The funds were allotted in equal amounts for FY14 and FY15. Thus, approximately \$1.8 million was allocated each year. Twelve grants were awarded; 11 of the state's districts received grants. The following districts received funded grants: Carson City School District, Churchill County School District, Clark County School District, Douglas County School District, Elko County School District, Lincoln County School District, Lyon County School District, Mineral County School District, Nye County School District, Washoe County School District, and White Pine County School District. In addition, the Commission funded a small grant to provide professional development using technology for all school districts. Six school districts did not receive grants; Humboldt, Lander, Pershing, Storey, Eureka, and Esmeralda were not funded.

It is important to note that the actual funding was significantly less than the amounts requested by the districts. The first year funds were released to districts late in 2013. Districts were able to expend funds after final budgets were approved. Some districts started Year 1 implementation in late 2013, while others started implementation in early 2014. By the time of site visits during FY2015, these early delays were accounted for and all districts had significant levels of implementation of their respective projects. Major points related to the Nevada State Educational Technology Implementation Fund Grants for the second year include the following:

- Many districts improved and/or replaced infrastructure to improve access to technology because adequate levels of access are necessary for all four priorities.
- Many of the districts used the funds to purchase one-to-one technology, which was used for integration of technology into classroom instruction and for testing.
- The e4e grant provides statewide access for professional development for all districts within Nevada.
- Clark County School District invested infrastructure, online course tuition for teachers, professional development funds for teachers via digital coaches, and two project facilitators for the development of mathematics BLAST (Bringing Learning And Standards Together) modules. The district has made these modules available to other districts throughout the state.
- Washoe County School District invested in extensive professional development aligned with its efforts to implement 1:1 Student Computing and Common Core State Standards.

The investment in technology across the districts included personal learning devices, improvements to infrastructure and access, replacement of older equipment, professional development, and curriculum development. In general, the stakeholders who were interviewed indicated that the funds from the State Educational Technology Implementation Fund Grant were used to improve the integration of technology into the classroom. The methods across the districts varied widely.

Introduction

State Educational Technology Implementation Fund Grant

To support educational technology within public schools, Nevada established the Trust Fund for Educational Technology (NRS 388.800). The Commission on Educational Technology (Commission) provides oversight and management of this fund. The purpose of the State Educational Technology Implementation Fund (SETIF) is to promote educational technology projects and programs that support K-12 education. Money from the fund may be used to obtain and maintain hardware and software for computer systems, infrastructure, and “other educational technology as may be approved by the Commission for use in classrooms” (NRS 388.800). In accordance with statute, the Commission provided a request for application (RFA) related to FY14 and FY15 with respect to State Educational Technology Implementation Fund Grants.

For this cycle, the Nevada State Educational Technology Implementation Fund Grants (SETIF) totaled approximately \$3.7M. The funds were allotted in equal amounts for FY14 and FY15. Thus, approximately \$1.8M was allocated each year. The Commission determined that grants should address one or more of the following funding priorities:

1. Common Core State Standards (CCSS);
2. Smarter Balance Assessment Consortium (SBAC);
3. Growth model;
4. 1:1 Student Computing;

5. Alternative Priority: Innovations in science, technology, engineering, and math (STEM) education and Nevada's Involvement in the Nevada Stem Education Coalition.

The Commission on Educational Technology (Commission) awarded 12 grants for FY14 and FY15; 11 grant awards were to districts and one was awarded to a consortium (eLearning for Educators).

The following districts received funded grants: Carson City School District, Churchill County School District, Clark County School District, Douglas County School District, Elko County School District, Lincoln County School District, Lyon County School District, Mineral County School District, Nye County School District, Washoe County School District, and White Pine County School District.

The Commission funded the eLearning for Educators (e4e Grant), which is designed to provide professional development for teachers throughout Nevada. Grantees submitted proposals that outlined specific goals for technology implementation. Elko County School District acted as the fiscal agent for the e4e grant.

Five school districts were not funded: Eureka County School District, Esmeralda County School District, Humboldt County School District, Lander County School District, Pershing County School District and Storey County School District. Humboldt County School District and Pershing County School District made applications for funding; however, they did not meet requirements established by the Commission; therefore, they were not funded. Eureka, Esmeralda, Lander, and Storey did not submit applications for this funding.

The districts utilized various approaches to address the priorities that they established in the application. For the funded grantees, all 12 addressed Common Core State Standards, 9 addressed 1:1 Student Computing, 6 addressed Smarter Balance, and 5 addressed Growth Model. No grantee addressed the alternative priority (STEM). Within Commission established guidelines, the districts used the funds in the following general areas:

- Many districts purchased some form of technology for 1:1 Student Computing for students. One district issued individual devices to students, while others assigned devices to teachers in classroom units with carts for storage and charging.
- Several districts used funds to upgrade infrastructure to improve access to support the priorities. The improved access supported district efforts related to Common Core State Standards, Smarter Balance Assessment Consortium, 1:1 Student Computing, and Growth Model.
- Many districts invested in professional development for teachers related to selected priorities.
- Districts used the funds to support development and implementation of components related to Common Core State Standards.

Outline of the Summative Report

This report is composed of five sections. Section I provides an overview of the data collection. Section II provides a discussion of how districts invested the funds. Section III provides a discussion of the implementation for FY15. Section IV provides a summary of

activities by grantee. Section V is a summary of the results of two surveys administered in May 2015.

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Section I: FY15 Data Collection

Sources of data for FY15 related to State Educational Technology Implementation Fund Grant consisted of documents analysis, results for surveys of teachers and directors, results from interviews with key stakeholders, and observations at districts. Drs. Ewing-Taylor and Thornton collected data from grantees in Group 1 (Washoe, Elko, Lyon, Carson, Churchill, Douglas, White Pine, Mineral, and eLearning for Educators). Dr. Schrader collected the data for the three grantees in Group 2 (Clark, Nye, and Lincoln districts).

Interviews of Key Personnel

During May, evaluators met with key stakeholders associated with the eight grantees in Group 1. Similarly, evaluators met with key stakeholders with Clark County and conducted distance interviews with Lincoln and Nye Counties also in May. Stakeholders interviewed included teachers in classrooms with assigned technology, project directors for each grantee, principals in various buildings, and district technology personnel. In addition, selected classrooms with 1:1 Student Computing were observed and students provided examples of applications of the technology within the classrooms.

The focus of the site visits and semi-structured interviews was to collect data related to the implementation of the various types of technology, to document barriers encountered, to review expenditures, and to document the direct impacts of technology to date. Each interview lasted approximately one hour and a typical site visit lasted two to three hours.

Survey of Teachers and Technology Directors

Two survey instruments with questions related to the State Educational Technology Implementation Fund Grants were developed. One was designed for district directors of technology and the other was designed for classroom teachers. The surveys were administered through electronic means. All directors were asked to complete the survey and each director was asked to forward an electronic link to all teachers who were directly impacted by the SETIF Grants. For example, a teacher who received 1:1 Student Computing technology in his/her classroom would receive the teacher survey link. Thus all technology directors, who work in funded districts, were asked to complete the survey designed for the directors. In turn, each was asked to send the link for the teacher survey to all teachers in their district who were directly impacted by the funds. One hundred ninety nine teachers completed the survey.

Section II: Investment of Funds Discussion

Background

Grant proposals were due on September 4, 2013 to the Commission. The Commission held mandatory meetings with applicants on September 26 and 27 of 2013. Humboldt County School District and Pershing County School District made applications for funding; however, they did not attend these mandatory meetings. All other applicants were in attendance at these meetings. These meetings included a series of negotiations among applicants and with the Commission. Grantees were funded at a level below their initial request.

The successful applicants received an approved amount of funding for FY14 and for FY15. Applicants were required to submit a revised budget that reflected the approved amounts. After grantees received approval of their respective budgets, they were able to expend the funds. Some districts quickly revised budgets and started implementation by mid fall semester. Others started implementation in early 2014. Grantees had all begun implementation by early March 2014 with the exception of Douglas County School District. This district implemented its project at the beginning of school in fall 2014.

Table 1 provides a summary of student enrollment, total funding by district, and funding by student within district. It is important to note that for most grantees, the funding varied from FY14 to FY15; however, the total funding for each year was fixed at \$1.8 million. Table 1 also provides a summary of student enrollment and the funded amount by student by

district. The funds received by grantees ranged from \$10,000 for the statewide professional development grant to \$1,972,000 for Clark County School District.

Nevada had approximately 427,000 students enrolled in September 2013. The largest two districts (Clark County School District and Washoe County School District) had approximately 315,000 and 63,000 students respectively. These two districts received State Educational Technology Implementation Fund Grants of \$1,972,000 and \$468,000 respectively.

As indicated in Table 1, total funding (funds for both years) across districts ranged from low of approximately \$50,000 for Nye County School District to a high of \$1,972,000 for Clark County School District. The eLearning for Educators project, which is a statewide project, received \$10,000, which provided approximately \$.02 per student. As indicated by Table 1, the smaller school districts received lesser total funds; however, the funding per pupil was significantly higher in smaller districts than the funding per pupil in the larger school districts. The funding per student within districts ranged from \$6.26 per student (Clark County School District) to \$216.71 per student (Mineral County School District). Washoe County School District received approximately \$7.43 per pupil for the biennium.

In summary, the districts with the largest student populations tended to receive larger total funding amounts; conversely, districts with smaller student populations tended to receive larger amounts per pupil. On a statewide basis, the State Educational Technology Implementation Fund Grants provided approximately \$8.60 per student (\$4.30/student/year). Each grant is discussed below; it is necessary to consider the size of student population, total funding, funding per pupil, and types of investments for each grant.

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Table 1: Summary of Technology Funding by District by Student (FY14 and FY15) Summary of Technology Funding by District by Student (FY14 and FY15)

District	Student Count*	Student Count*Funded	Funding FY14 plus FY 15	Per Student
Clark	314,956	314,956	\$ 1,971,926.54	\$ 6.26
Washoe	62,967	62,967	\$ 468,131.00	\$ 7.43
Elko	9,949	9,949	\$ 188,570.00	\$ 18.95
Lyon	8,107	8,107	\$ 230,550.00	\$ 28.44
Carson	7,528	7,528	\$ 217,547.99	\$ 28.90
Douglas	6,120	6,120	\$ 226,761.15	\$ 37.05
Nye	5,257	5,257	\$ 49,884.83	\$ 9.49
Churchill	3,677	3,677	\$ 72,842.52	\$ 19.81
Humboldt	3,526		Not Funded	
White Pine	1,335	1,335	\$ 30,660.00	\$ 22.97
Lander	1,125		Not Funded	
Lincoln	973	973	\$ 108,139.05	\$ 111.14
Pershing	712		Not Funded	
Mineral	459	459	\$ 99,468.92	\$ 216.71
Storey	397		Not Funded	
Eureka	275		Not Funded	
Esmeralda	79		Not Funded	
eLearning for Educators	427,442		\$ 10,000.00	\$ 0.02
State Total Funding*	427,442	421,328 **	\$ 3,674,482.00	\$ 8.60

* Nevada Department of Education K-12 Student Enrollment September 24, 2013

** 6,114 students were enrolled in non-funded districts

Table 1 provides a summary of the estimated number of students who were either directly or indirectly impacted by the funds for FY14. The estimated number of students was reported by the Nevada Department of Education on September 24, 2013. A total of 427,442 students were enrolled in Nevada schools (see column 2) and a total of 421,328

students were enrolled in the funded districts. Thus, 98.6% of the students were enrolled in districts that received funding. Correspondingly, 1.4% of the students (6,114 students) were enrolled in districts that did not receive funding.

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Section III: Implementation Discussion

The Commission determined that grants should address one or more of the following funding priorities:

1. Common Core State Standards (CCSS);
2. Smarter Balance Assessment Consortium (SBAC);²
3. Growth model;
4. 1:1 Student Computing;
5. Alternative Priority: Innovations in science, technology, engineering, and math (STEM) education and Nevada's Involvement in the Nevada Stem Education Coalition.

Each applicant was required to select from the above priorities as a part of the application process. Table 2 and Table 3 provide summaries of the priorities addressed in the grant applications. All grantees (12) selected Common Core State Standards as a priority, nine grantees selected 1:1 Student Computing as a priority, six grantees selected Smarter Balance Assessment Consortium as a priority, and five grantees selected Growth Model as a priority. None of the grantees selected the alternative as a priority (STEM). Three of the grantees selected all four of the priorities established by the Commission as priorities for funding.

The reduction in the awarded funding from requested amounts impacted the abilities of districts to address stated priorities. Some districts reduced emphasis on one or more of the

² Issues associated with SBAC testing are described later.

priorities. One district eliminated one of the priorities. Several districts maintained their original priorities; however, they focused the funds on one priority. For example, several districts purchased one-to-one technology and searched for other funding to support technology integration. As an illustration, districts provided professional development, charging and storage cabinets, and technical support for other funds. However, in general, the reduction in funding from proposed amounts was associated with corresponding reductions in the scopes of district projects. Again, most of the districts continued their priorities with a reduced emphasis on areas that were not funded and worked to find alternative funding.

The impacts of the State Educational Technology Implementation Fund Grants were both direct and indirect. Groups of students and teachers received access to 1:1 Student Computing within their classrooms. In one district, students received access to 1:1 Student Computing devices that were assigned individually to them. Such are examples of direct impacts for students and teachers.

Other students and teachers were indirectly, positively impacted by the investment of Nevada State Educational Technology Implementation Fund Grants. For example, improvements in infrastructure have resulted in better access to technology, and better one-to-one technology available in the classrooms. One-to-one technology in classrooms reduced pressures on traditional library services. Table 2 and Table 3 provide summaries by grantee by priority.

To some extent, all students and teachers within a funded district are positively impacted by improvements in infrastructure; however, for the purposes of this report such improvements are judged to have indirect impacts.

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Table 2: Graphic Summary of Priorities in Application by Grantee

Districts	CCSS	One to One	SBAC	Growth Model	STEM	# priorities
Carson	*	*				2
Churchill	*	*				2
Clark	*		*			2
Douglas	*	*	*	*		4
Elko	*	*	*	*		4
Lincoln	*	*	*	*		4
Lyon	*	*		*		3
Mineral	*	*		*		3
Nye	*		*			2
Washoe	*	*				2
White Pine	*	*	*			3
e4e (P.D.)	*					1
TOTAL #	12	9	6	5		

*Priorities established by the Grantee

1. Common Core State Standards (CCSS)
2. 1:1 Student Computing (One-to-One)
3. Smarter Balance Assessment Consortium (SBAC)
4. Growth Model
5. Alternative Priority: Innovations in science, technology, engineering, and math

Table 3: Summary of Stated Priorities in Application by Grantee

Districts	Priorities Selected by Grantee
Carson	<ul style="list-style-type: none"> • Common Core State Standards (CCSS) • 1:1 Student Computing (One-to-One)
Churchill	<ul style="list-style-type: none"> • Common Core State Standards (CCSS) • 1:1 Student Computing (One-to-One)
Clark	<ul style="list-style-type: none"> • Common Core State Standards (CCSS) • Smarter Balance Assessment Consortium (SBAC)
Douglas	<ul style="list-style-type: none"> • Common Core State Standards (CCSS) • 1:1 Student Computing (One-to-One) • Smarter Balance Assessment Consortium (SBAC) • Growth Model
Elko	<ul style="list-style-type: none"> • Common Core State Standards (CCSS) • 1:1 Student Computing (One-to-One) • Smarter Balance Assessment Consortium (SBAC) • Growth Model
Lincoln	<ul style="list-style-type: none"> • Common Core State Standards (CCSS) • 1:1 Student Computing (One-to-One) • Smarter Balance Assessment Consortium (SBAC) • Growth Model
Lyon	<ul style="list-style-type: none"> • Common Core State Standards (CCSS) • 1:1 Student Computing (One-to-One) • Growth Model
Mineral	<ul style="list-style-type: none"> • Common Core State Standards (CCSS) • 1:1 Student Computing (One-to-One) • Growth Model
Nye	<ul style="list-style-type: none"> • Common Core State Standards (CCSS) • Smarter Balance Assessment Consortium (SBAC)
Washoe	<ul style="list-style-type: none"> • Common Core State Standards (CCSS) • 1:1 Student Computing (One-to-One)
White Pine	<ul style="list-style-type: none"> • Common Core State Standards (CCSS) • 1:1 Student Computing (One-to-One) • Smarter Balance Assessment Consortium (SBAC)
eLearning (e4e P.D.)	<ul style="list-style-type: none"> • Common Core State Standards (CCSS)

A review of Table 2 and Table 3 indicate that all districts selected Common Core and most selected 1:1 Student Computing (9). Districts elected to address priorities in a variety of approaches. For example some districts used laptops to address four of the priorities. Others

districts enhanced their ability to access the Internet as a method to address multiple priorities. Several districts selected Growth Model and SBAC. However, with the reduced funding, many districts elected to use funds to purchase individual student computing devices.

Some districts invested in improved infrastructure and professional development to support and implement online assessment, common core, and growth model. Again, these types of investments in technology were judged to have indirect impacts. Each priority will be discussed individually below. A summary of the major areas of expenditures, over the grant period, by grantee is presented in Table 4.

Table 4: Summary of Funding and Major Expenditures by Grantee

District/Grantee	Total Funding	Description of Major Expenditures
Carson	\$ 217,547.99	ThinkPads for 6 th grade students
Churchill	\$ 72,842.52	Android tablets Keyboards, cases, software, carts Stipends (reduced) for 2 teachers to create e-books
Clark	\$ 1,971,926.54	Two math teachers hired as facilitators for BLAST module development Teachers awarded funds for after school professional development, developed by digital coaches Online professional development fees (TeacherLine, ASCD) Web technology Software 3 computers 2 proxy servers
Douglas	\$ 226,761.15	The district purchased laptop carts in late June and early July 2014 for implementation in fall 2014.

Elko	\$188,570.00	Laptops
Lincoln	\$108,139.05	Equipment for wireless WAN (78 802.11 a/c routers; cables, software)
Lyon	\$ 230,550.00	Infrastructure Support technology, software
Mineral		Re-conditioned used desk top computers & 2 printers to equip one classroom
		Gradepoint curriculum
		Broadband service
Nye	\$ 49,884.83	28 laptops and a cart
Washoe	\$ 468,131.00	Equip several classrooms for integration of technology
		21 century professional development 40 teachers
		Professional development instructor salary
White Pine	\$ 30,660.00	Chromebook and carts
eLearning for Educators (e4e)	\$10,000.00	Each year the consortium will receive \$5000 for Administrative salary.

Unfunded Requests

In competitive grant application procedures, it is quite common for part or all of a proposed project to be unfunded. The Commission had limited funds. For the State Educational Technology Implementation Fund Grants for FY14 and FY15 significant requests were unfunded. In total the amount requested by all grantees was approximately \$6.8 million. In addition, Humboldt School District and Pershing School Districts had requests that were not funded. Four districts did not apply for funding. Of the total requested by grantees, the Commission funded \$3.67 million for the two years. That is, the Commission funded approximately 54% of the amount requested. The major items requested but not funded are summarized in Table 5. It is important to note that major items in a small districts are not

major items in a larger district. As indicated in Table 5, common unfunded items included 1:1 Student Computing devices, software, professional development and related costs, technology support, and stipends for teachers.

Table 5: Summary of Major Items NOT Funded by Grantee

Amount NOT Funded	Major items NOT funded in the final grant for FY14 & FY15
Carson City (\$197,000) (Approximately 48%)	Software for teacher devices 68 laptops for teachers Indirect costs IT Technician for 1:1 Student Computing Project
Churchill (\$ 62,000) (Approximately 46%)	Stipends for teachers to prepare eBooks Equipment Fewer Tablets
Clark (\$1,377,000) (Approximately 41%)	One teacher in support of BLAST Professional development for Common Core State Standards Online Professional development (TeacherLine, ASCD; decrease by 75%) Technician support Indirect costs Equipment (e.g. 2 servers)
Douglas (\$162,000) (Approximately 42%)	I:1 Student Computing Devices projectors
Elko (\$200,000) (Approximately 51%)	Equipment: Laptops and carts
Lincoln (\$150,000) (Approximately 58%)	Professional development and instructional software Equipment: 157 Net Books, 20 iPads, 20 laptops, carts
Lyon (\$546,000) (Approximately 70%)	Sub days for coverage for professional development for teachers to support technology applications Travel to attend conferences Cell phone service Supplies

	Professional books and support materials
	Instructional software
	computers
	Indirect costs
	Internet service provider fees
	Web based software in four core subjects for two schools
Mineral (\$ 68,000)	Software to monitor student work from teacher' s device
(Approximately 41%)	Purchased reconditioned computers
	Equipment (headphones, webcams)
	Reduced costs of printers
Nye (\$30,000)	36 laptops
(Approximately 37%)	Carts
Washoe (\$217,000)	The district reduced investments in:
(Approximately 32%)	Trainers
	Professional development
	Instructional coaches
	Release time for professional development
	Instructional materials
	Video Conferencing cohort
	21 st Century Teaching and Learning Cohort
	Workshops
	Personal Learning Devices w carts
	In general all components of the proposed grant were scaled back to reflect the level of funding.
White Pine (\$ 46,000)	Chromebook and carts
(Approximately 60%)	
eLearning (\$69,000)	Indirect costs
(Approximately 87%)	Stipends for course facilitators
(Elko fiscal agent)	Development of new courses
	Purchase of new courses
Total Not funded	For this funding cycle, the Commission did not fund approximately
(\$ 3,124,000)*	#3.1 million of requests (46% not funded).
(Approximately 46%)	

*These amounts do not include requests from Humboldt and Pershing.

In summary, the Commission funded approximately 54% of the requests; or in the alternative, 46% of requests were not funded. The abilities of grantees to complete proposed activities are related to funding. As stated above, grantees elected several strategies. These included searching for other funds, reduction of amount of effort, and elimination of some priorities. Grantees used one or more of these strategies.

Discussion of Activities by Priority

The following section presents the information structured by priority. Grantees identified priorities as a part of the application process. Individual priorities and related activities are discussed in the following section. As discussed above, none of the grantees selected the alternative priority, STEM. Therefore, the following section will discuss the four priorities and provide a summary of grantee activities related to those four priorities established by the Commission.

1 – Common Core State Standards Priority

Each grantee selected Common Core State Standards (CCSS) as a priority. Districts selected a variety of approaches to address the CCSS. Carson City School District is using the 1:1 Student Computing devices to embed the CCSS into the curriculum, teaching, and student learning. Churchill County School District used technology to facilitate innovative teaching and learning aligned with the CCSS. Douglas County School District is using 1:1 Student

Computing and other technology to facilitate training and to integrate the CCSS into the curriculum, teaching, and learning. Lyon County School District is using the technology to focus on assessment, instruction in core classes, and access aligned with the CCSS. Elko County School District purchased 1:1 Student Computing devices to be used in core subjects to promote the CCSS.

Table 6 presents a summary of investments by grantee that were associated with the CCSS. To a large extent, the nature of the investment was determined by the resources that individual districts had available before the grant. Investments included professional development and related costs, 1:1 Student Computing devices integrated into curriculum, teaching and related learning, and curriculum development.

White Pine County School District primarily invested in 1:1 Student Computing devices for student use. Clusters of devices with carts for storage were assigned to individual teachers. The district has used the devices to facilitate integration and implementation of the CCSS into the curriculum, teaching, assessment, and student learning in relation to these standards. With reduced funds (\$30,000), the direct effects have been limited; however, the district envisions expanding to additional classrooms and other content areas aligned with the CCSS as funds are available.

Washoe County School District aligned its efforts with implementation of 21st Century Learning Environment Project, which is aligned with the CCSS. The district investments involved extensive professional development, workshops, and 1:1 Student Computing

devices; these investments are related to district efforts to use technology to implement the CCSS. The efforts are focused on CCSS English Language Arts and on CCSS Mathematics.

The eLearning for Educators used its limited funds to support state-wide professional development related to the CCSS and other efforts. The consortium is seeking other sources of funding to support efforts to provide professional development for teachers across the state.

Clark County School District connected its efforts to development and implementation of BLAST (Bringing Learning and Standards Together), a program to provide teachers with information on how to best implement content standards in their classrooms. Overall, the goal is to improve math instruction throughout the district. The current timeframe is one and a half to two weeks per standard. Each module contains five distinct parts: introduction, standard in depth, material on assessment, material on instruction, and a reflective component. Clark indicated that these modules would be available to other district when developed.

In addition to BLAST, Clark County identified online training modules via TeacherLine and ASCD in an effort to support the development of teachers' understanding of the CCSS. Funds were made available to enroll in courses, though ACSD was not utilized during Year 2. Administrators also noted that after school training was linked directly to the CCSS. Teachers were provided financial support to attend these small professional development sessions.

Table 6: Investments Linked to Common Core State Standards

District/Grantee	Implementation linked to Common Core State Standards
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Carson City	<p>For SY2013-2014, the district funded teacher professional development to apply technology, 1:1 Student Computing devices, and implementation of Common Core State Standards in part from State Educational Technology Implementation Fund Grant and in part from other district funds.</p> <p>For SY2014-2015, the district continued to fund activities related Common Core State Standards from other district funds. The State Educational Technology Implementation Fund Grants were used primarily used for 1:1 Student Computing devices. 1:1 Student Computing devices were used to support classroom activities related to Common Core State Standard.</p>
Churchill	<p>For SY2013-2014, stipends were reduced for math teachers to create ebook based on Common Core State Standards; thus, the emphasis on Common Core State Standards was not a major focus of the grant for the district.</p> <p>For SY2014-2015, Common Core State Standards was not a focus for the district. The district focused on 1:1 Student Computing see discussion related to that area. 1:1 Student Computing devices were used to support classroom activities related to Common Core State Standard .</p>
Clark	<p>BLAST module development</p> <p>2 Math teachers to develop BLAST modules</p> <p>Hourly pay for teacher (e.g. videos for BLAST & CCSS lesson development)</p> <p>Online professional development fees for teachers to take courses (TeacherLine and ASCD)</p>
Douglas	<p>For SY2013-2014, the district did not expend funds from the grant.</p> <p>For SY2014-2015, 1:1 Student Computing devices were purchased and used to support classroom activities related to Common Core State Standards.</p>
Elko	<p>For SY2013-2014, the district used the 1:1 Student Computing devices to support classroom activities related to Common Core State Standards.</p> <p>For SY2014-2015, the district increased the number of 1:1 Student Computing devices available within the district (approximately 900 additional); District used the 1:1 Student Computing devices to support implementation of Common Core State Standards</p>
Lincoln	<p>Upgrade wireless network equipment and software</p> <p>Supports the district efforts of implement the CCSS</p>
Lyon	<p>For SY2013-2014, the District used increased infrastructure to support the 1:1 Student Computing within the instruction in the 4 core subjects. The</p>

goal was to increase rigor of lesson plans, increase student academic scores, motivation, and knowledge and skills.

For SY2014-2015, the above activities continued. The district continued to expand infrastructure capacity within the district which in turn, supported district efforts to implement Common Core State Standards.

Mineral

For SY2013-2014, the district purchased electronic based curriculum and set up an alternative program for high school students to address Common Core State Standards. Note: the district planned to use accesses to the Internet to support efforts to implement Common Core State Standards; however, the district was not able to develop improved access during SY2013-2014. The district continued to work to obtain better access to the Internet.

For SY2014-2015, the district was able to obtain better Internet service which supported its efforts to utilize the Internet to support Common Core State Standards. At the time of the visitation, the district had obtained much improved access to the Internet which was being used to support district activities related to Common Core State Standards.

Nye

The laptops will be used to support district efforts to implement the CCSS via ePortfolios.

Washoe

For SY2013-2014, the district utilized the State Educational Technology Implementation Fund Grant to support professional development, the 21st Century Educator Learning – Collaboration, Knowledge Construction, Skilled Communication, Use of Technology for Learning, Real-World Problem Solving and Innovation, and Self-Regulation. In addition, the district established a cohort of 8 teachers w 1:1 Student Computing devices. Each of these activities is aligned with the district efforts to implement Common Core State Standards.

For SY2014-2015, the efforts described above were continued. In addition, the district expanded the technology cohort group of teachers, worked with 4 schools to establish 4 technology training sites to enable expanded professional development within the district, develops a library of videos of exemplary teaching practices, and expanded its support for technology in many areas (e.g. ELL, CCSS, NGSS). The above activities (both SY2014-2015 and SY2013-2014) are aligned with district efforts to implement Common Core State Standards.

White Pine

As discussed above, the district received no funding for SY2014-2015,

from the grant. The district purchased a series of 1:1 Student Computing devices that were utilized in both SY2013-2014 and SY2014-2015 to support the district efforts to implement Common Core State Standards. The devices enabled students to access and utilize additional sources of information and enhanced the teaching and learning with respect to the Common Core State Standards.

e4e statewide P. D.
(Elko fiscal agent)

The professional development focused on Common Core State Standards to support all districts within Nevada. Note, the state only funded the project at \$5,000 for each year. The activities for both years were parallel and very limited because the funding was significantly reduced from the amounts proposed in the grant application.

In summary, the grantees' efforts related to Common Core State Standards related to the use of technology to support instruction in core subjects, data collection, and use of technology to support teaching and learning in the core subjects. The districts utilized the 1:1 Student Computing devices to embed Common Core State Standards into the curriculum, teaching, and student learning. The grantees improved access to Internet, improved 1:1 Student Computing technology, and/or improve infrastructure. Each of these activities improved the ability of the districts to implement activities related to Common Core State Standards.

2 – 1:1 Student Computing Priority

Nine districts selected 1:1 Student Computing as a priority for the grant application. Movement into an environment in which each student has access to an individual computing device presents problems for the districts. Stakeholders identified many of the issues, including lack of bandwidth, maintenance, technology support, ongoing replacement costs, and professional development for teachers.

A review of the applications and interviews of key district stakeholders from districts indicated that the exact type of one-to-one technology purchased varied from district to district. Some districts purchased tablet devices because tablets were much less expensive. However, stakeholders in some districts pointed out that tablets were less functional than laptops. Other stakeholders pointed out that as the number of 1:1 Student Computing devices increased, the demands on district access to Internet service and requirements for improved infrastructure will increase proportionally. For example, a stakeholder from a small district explained that effective use of 1:1 Student Computing technology would require much better access to Internet with increased bandwidth. Smaller districts in rural Nevada have limited access; indeed, some have almost no access. Access to high-speed Internet service continues to be a problem in small rural schools. The investments that districts linked to 1:1 Student Computing are summarized in Table 7.

Table 7: Summary of Grantee Activities Linked to One-to-One Technology

District	Implementation linked to 1:1 Student Computing
Carson City	<p>For SY2013-2014, the district purchased approximately 600 Think Pads, which have been assigned to 6th graders and related software (FY14). Each 6th grade student in the district was assigned a ThinkPad for their personal use. The students used these devices to support instruction and learning on a daily basis. Related software was purchased. The district utilized the State Educational Technology Implementation Fund Grants to purchase 1:1 Student Computing devices for 6th grade students in the two middle schools. The district utilized funds from other sources to purchase enough devices to be able to assign a 1:1 Student Computing device to each student in the middle schools. These devices were assigned to specific students. Thus, ALL students in the middle schools in Carson City School District had a 1:1 Student Computing device assigned to them.</p> <p>For SY2014-2015, the district continued the activities described above.</p>

That is, the all students in the middle schools had a 1:1 Student Computing device assigned to them. The District used the funds from this grant to purchase 1:1 Student Computing devices for students grades 3-5 with software (again, the district utilized funds from other sources to supply additional computers, professional development, and technical support).

The district plans to purchase 1:1 Student Computing devices for the high school for the beginning of the school year again from other sources. Thus, the district projects that it will be able to provide a 1:1 Student Computing device for each student grades 3-12 at the beginning of the 2015 school year. The district has utilized several sources of funding to accomplish this outcome.

Churchill

For SY2013-2014, the district purchased Android tablets and charging carts which were assigned to specific teachers. These devices were assigned in sufficient quantities that the selected classrooms had 1:1 Student Computing.

For SY2014-2015, the district continued activities parallel to the first year. The district purchased additional 1:1 Student Computing devices with carts and assigned these resources to specific teachers. The additional tables enabled the district to set up three classrooms: one in middle school math, one high school math, and one in special education at the middle school.

The 1:1 Student Computing devices were limited in number and were assigned to individual classrooms such that the selected classrooms were able to provide 1:1 Student Computing.

Clark

NOT SELECTED AS PRIORITY FOR GRANT

Douglas

For SY2013-2014, as discussed above, the district did not expend funds from the grant.

For SY2014-2015, the district invested grant resources in 1:1 Student Computing devices with charging carts. These units were assigned to groups of teachers. Thus, these teachers had enough devices to have 1:1 Student Computing for their respective classes on a "check out basis." The devices had access to the Internet and were well received by the teachers and students.

Elko

For SY2013-2014, the district purchased laptops and assigned them to selected classrooms. The 1:1 Student Computing devices were assigned in

groups so that the selected teachers had enough devices to have one for each student in the class. The 1:1 Student Computing devices had access to the Internet.

For SY2014-2015, the district continued activities related to this goal parallel to the first year. The district purchased additional 1:1 Student Computing devices and assigned them to specific teachers in groups. This enabled the teachers to provide instruction using 1:1 technology in their classes. The district purchased approximately 900 1:1 Student Computing devices during SY2014-2015 from the grant funds.

Lincoln

Upgrade wireless network equipment and software

Supports 1:1 Student Computing throughout the district

Lyon

For SY2013-2014, the district utilized the State Educational Technology Implementation Fund Grant to purchase and support increased technology to expand the infrastructure within the elementary school.

This enabled the district to expand its 1:1 Student Computing activities.

For SY2014-2015, the district continued activities parallel to the first year.

For example, the district enhanced Internet access at the elementary levels with primary emphasis at the Fernley Elementary School. The increased infrastructure enhanced the ability of teachers to effectively implement 1:1 Student Computing throughout the elementary school.

Mineral

For SY2013-2014, the district utilized the funds to purchase reconditioned desktop computers and broadband service. These computers enabled the district to have one classroom with limited access to the Internet. The district has very limited online curriculum. Note the district was NOT able to develop better access to the Internet during SY2013-2014. However, the district continued to work toward this goal.

For SY2014-2015, district continued to use the online curriculum materials. Note: as discussed above, the district was not able to secure good access in 2014 so \$23,000 was carried over for the SY2014-2015. The district was able to establish improved access through better broadband. It is important to note that the availability of technology in the district is quite limited. However, the impacts of the grant were relatively significant given the very limited amount of technology before the grant.

Nye

NOT SELECTED AS PRIORITY FOR GRANT

Washoe

For SY2013-2014, the district established 1:1 Student Computing in

selected classrooms. The District provided related professional development and established a cohort of eight teachers who met regularly and received district support related to applications technology within the classroom.

For SY2014-2015, the district established an additional cohort of teachers to implement 1:1 Student Computing across the district. The cohort consisted of 8 teachers. Each teacher was provided 1:1 Student Computing devices, a cart, Professional Development, and related software.

The professional development related to implementation of 1:1 Student Computing and instructional technology were on ongoing priorities for the district.

White Pine

For SY2013-2014, the district invested the State Educational Technology Implementation Fund Grant in 1:1 Student Computing with related professional development. The 1:1 Student Computing devices and carts were assigned to selected classrooms.

For SY2014-2015, the district received no additional State Educational Technology Implementation Fund Grant funds. The district continued the application which were started in year one. Feedback indicated that the teachers and students had used to 1:1 Student Computing devices to improve teaching and learning. In addition, the district utilized other district funds to purchase additional 1:1 Student Computing devices.

e4e

NOT SELECTED AS PRIORITY FOR GRANT

(Elko fiscal agent)

State total

In summary, a total of 9 Grantees selected 1:1 Student Computing. For the second year, the grantees continued efforts that were started during the first year of the project. In some cases, the grantees made adjustments based on the formative feedback that they received from stakeholders. For example, some of the grantees changed the type of 1:1 Student Computing devices that were purchased. These districts tended to support the State Educational Technology Implementation Fund Grants with money from other sources to expand the number of 1:1 Student Computing devices and to expand the effectiveness of the applications (professional development, infrastructure, technical support, etc).

1:1 in Carson City School District

For the first year, Carson City School District purchased ThinkPads with AT&T Broadband access. These devices were issued to all sixth grade students. The district used other funds to purchase sufficient devices to enable each middle school student to have a personal 1:1 Student Computing device. In addition, the district provided professional development as needed for teachers and technical support for the buildings and teachers as needed. The feedback from students, teachers, and administrators was very positive. The impacts of continuous student access to ThinkPads were viewed as extremely helpful. Teachers and principals provide examples related to increased student motivation, time on task, differentiated instruction, and increased engagement of students. For 2013-2014 school year, the State Educational Technology Implementation Fund Grant was used to provide 1:1 Student Computing devices for 6th grade students.

For SY2014-2015, Carson City School District continued to focus on the development and implementation of 1:1 Student Computing. The students at the middle school were assigned a 1:1 Student Computing device for SY2014-2015. Again, these devices were purchased in part from funds from the first year of the State Educational Technology Implementation Fund Grant (the district utilized other funding sources to complete the purchase). In the second year, State Educational Technology Implementation Fund Grant was used to purchase 1:1 Student Computing devices for elementary school students. The funds from the grant were used primarily to purchase 1:1 Student Computing devices for students grades 3-5. The district purchased various Chromebook devices, which had functional

keyboards. The teachers indicated that the devices with the keyboards are much more functional for instructional use. The district is generally pleased with the quality of various devices. The district has continued to provide professional development for teachers related to integration of technology into the classroom.

The feedback from teachers, students, principals and other key personnel indicated that the 1:1 Student Computing devices were highly effective. Each of these groups provided examples of positive impacts of 1:1 Student Computing.

1:1 in Churchill County School District

For the first year of the State Educational Technology Implementation Fund Grant, Churchill County School District purchased two classroom sets of Android tablets, associated management software and two charging carts, for two middle school mathematics classrooms. These devices were determined to be the most cost-effective for the intended use, which was to support a 1:1 pilot program and to test the ebook the teachers were developing. In addition, the District purchased software to help manage checking out 1:1 Student Computing Devices if and when the decision is made to allow students to take devices home. The impacts of these devices in the classrooms were viewed very favorably by the teachers and students. Observations indicated that students were engaged and teachers were able to effectively work with individual and groups of students as needs were identified.

For SY2014-2015, the district continued activities parallel to those initiated during SY2013-2014. The district purchased 1:1 Student Computing devices with carts and assigned these resources to specific teachers. The additional tablets enabled the district to set up three classrooms: one in middle school math, one high school math, and one in special education at the middle school.

Both years the district provided technology for a small number of teachers, who indicated positive results. The district is faced with significant budget issues; thus it was not able to provide significant additional technology beyond levels funded in the grant.

1:1 in Elko County School District

For the first year of the grant, Elko purchased laptops because the district determined that devices with smaller capacity (e.g. iPads) were much less effective in promoting integration of technology into the classroom. One administrator indicated that tablets were judged to be less effective for classroom applications such as Microsoft Office. The laptops could be used to integrate 1:1 Student Computing into the classrooms, as well as applications for other priorities. The district assigned classroom sets of laptops with carts to selected classrooms. Classroom observations and interviews with teachers and administrators indicated that the project was working as planned.

For the second year, the district continued with the goals established in its application. The District purchased approximately 900 additional 1:1 Student Computing devices and charging carts. These units were assigned to specific teachers.

As one administrator indicated the laptops could be used to integrate 1:1 Student Computing into the classrooms, as well as applications for other priorities. The district assigned classroom sets of laptops with carts to selected classrooms. Classroom observations and interviews with teachers and administrators indicated that the project was working as planned. The ratio of 1:1 Student Computing devices to student across the total district was low; however, the impacts within the selected classrooms was judged to be significant and positive.

The feedback indicated that the district was highly committed to implementation of 1:1 Student Computing across the district. To this end, the district has invested in technical support, improved infrastructure, ongoing professional development and related services from other funding sources.

The evaluators interviewed teachers, students, principals and other key personnel within the district. The feedback was consistently positive related to the impacts of the 1:1 Student Computing on the teaching and learning process. The interviewees consistently provided examples that illustrated positive impacts on student motivation, engagement, and advanced application of technology. Teachers provided examples of application from the Internet, support for both advanced students and struggling students.

1:1 in Lyon County School District

For the first year of the State Educational Technology Implementation Fund Grant, the district invested in infrastructure. Lyon County School District expanded the infrastructure

support in two buildings; Fernley Elementary School (FES) and Fernley Intermediate School (FIS). The improved access supported the use of 1:1 Student Computing within classrooms. The feedback indicated that, with the upgrades, access throughout selected buildings improved.

For the second year of the grant, the district continued efforts parallel to the first year and aligned with the established goals in the grant application. The district focused grant funds on improvement of infrastructure to support more effective application of instructional technology in the district.

The district has an extensive technology plan which includes improvement of infrastructure, 1:1 Student Computing devices, and Professional Development. The district has supported its technology plan from multiple funding sources. For example the district passed a bond which, in part, has been used to support improved technology within the district. The district has established a "bond oversight committee," which reviews the expenditures related to the bonds. The expansion of technology in the classrooms will be an ongoing issue for the district. The district has a technology plan to upgrading machines over time; however, the funding of 1:1 Student Computing and upgrades is a significant issue. At the present time, the district has at least one computer lab in each school. The 1:1 Student Computing plan calls for the district to phase out desktop computers and to replace them with mobile devices as funds become available.

The district explained the need to continuously improve its infrastructure related to the increasing demands of faster and better access to the Internet, applications of instructional

technology, and support of the teaching process. Examples included concerns related to SBAC assessment, ability to provide 1:1 Student Computing for all students, policies related to student provided devices, and technical support.

The feedback from the district was positive about the impacts related to the Nevada State Educational Technology Implementation Fund Grant and its support for improvement of the teaching and learning process.

1:1 in Washoe County School District

For the first year of the State Educational Technology Implementation Fund Grant, Washoe County School District purchased personal devices with carts to equip 6 individual classrooms. By design, the selected classrooms represented various grade levels and core content levels including math, ESL, elementary, middle, and high school. In addition, the teachers received support from district level technology team and professional development. The teachers are a cohort which met regularly throughout the year. The interviews and observations indicated that the implementation was consistent with the funded plan. As discussed earlier, the district had to reduce the plan in proportion to the funding.

For SY2014-2015, the district continued with its goals and corresponding activities designed to improve 1:1 Student Computing throughout the district. The district established a second cohort of teachers from various subjects, grade levels, and buildings. One of the criteria for selection was the degree of teacher interest in applications of technology in the classrooms.

The district support activities included Professional Development, monthly meetings, and support for members of the cohort. These activities were parallel to those of the first year.

Feedback and observations indicated that the technology had enhanced teaching and learning in the classrooms with the technology; examples were provided. The district assigned approximately 30 devices and a charging cart to each selected teacher. This ratio enabled the classroom teacher to provide 1:1 Student Computing for each student. The district indicated that the need for Professional Development was ongoing and necessary to effectively integrate technology into the teaching and learning process.

The evaluators interviewed and observed students, teachers, principals and other key personnel. The teachers in the cohort indicated that the ongoing Professional Development and support activities provided by the district were extremely beneficial. The students provided examples of advanced work related to core subjects using computer applications. Each group provided examples that illustrated positive impacts related to improvement of the teaching and learning process.

1:1 in White Pine County School District

For the first year of the State Educational Technology Implementation Fund Grant, White Pine County School District purchased Chromebook and assigned them to teachers in classroom-groups of devices with carts for storage. The teachers were selected based on district criteria related to interest, motivation, and planned applications of 1:1 Student

Computing devices. Interviews and observations indicated that the implementation of the plan was consistent with the proposal.

For the second year, the district did not receive any additional funds from the grant. Therefore, with respect to the State Educational Technology Implementation Fund Grant, the district continued to utilize the 1:1 Student Computing devices purchased during year one. However, the district did purchase additional 1:1 Student Computing devices from other funding sources during SY2014-2015. As a result, the district has expanded access for students to 1:1 Student Computing beyond those provided through the State Educational Technology Implementation Fund Grant.

The evaluators interviewed and observed teachers and students. In addition, principals and key personnel were interviewed. The feedback from each group consistently supported the positive impacts of the 1:1 Student Computing devices. District personnel explained that community and school board viewed the 1:1 Student Computing very positively. As a result, the district purchased additional devices from other district funds.

3 – Smarter Balance Assessment Consortium (SBAC) Priority – Issues and Updates

In the time between proposal submissions, grant awards, and this writing, the State of Nevada experienced significant issues with the SBAC online testing, resulting in the termination of the contract between the SBAC provider and the NVDOE. Roughly 62,000 of the expected 213,000 students were able to successfully complete the testing due. Although technology coordinators had predicted some infrastructure issues (e.g., bandwidth, access to

labs), the issues appear to be related to system congestion and login issues. In April 2015, the Nevada Department of Education notified the SBAC vendor of their breach of contract. As a result, the SBAC priority described in numerous proposals is not applicable. However, districts that specified SBAC as a priority have been noted below. This represents considerable investment in terms of time and resources. However, the comments, issues, and preparations for SBAC may be somewhat relevant when exploring a new online testing initiative, although not directly.

Table 8 provides a summary of grant related activities for the five districts that selected SBAC as a priority: Clark, Douglas, Elko, Lincoln, and Nye counties. The activities ranged from improved access to the use of laptops for data collection and test taking. Many districts focused on the development of the capacity to implement SBAC testing. For the rural districts, inadequate access and limited bandwidth are barriers to the effective use of online testing for large groups of students as required by SBAC.

Clark County School District purchased servers and improved tech support in order to better support SBAC testing. Lincoln County School District invested to improve wireless Internet service to support the ability to implement SBAC. Nye, Douglas and Elko County School Districts indicated that the 1:1 Student Computing devices would be used to implement SBAC. Several districts, which did not select SBAC as priority, indicated that they would use 1:1 Student Computing devices for student testing.

Table 8: Summary of Activities Related to Smarter Balance Assessment Consortium

District	Implementation linked to Smarter Balance Assessment Consortium
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Carson City	NOT SELECTED AS PRIORITY FOR GRANT
Churchill	NOT SELECTED AS PRIORITY FOR GRANT
Clark	Additional servers will support the SBAC testing within the district.
Douglas	1:1 Student Computing devices were purchased for implementation at the beginning of the SY2014-2015. These devices were utilized for testing and data collection related to SBAC during the May statewide assessment.
Elko	For the first year of the State Educational Technology Implementation Fund Grant, the district purchased Laptops for students which were used for assessment. The data collected was used to support improvement of instruction. For the second year of the grant, the district utilized the funds to purchase additional 1:1 Student Computing devices which were also utilized to support SBAC within the district. As a result, the district had good student access for assessment; however, the state level infrastructure did not support state wide assessment.
Lincoln	Upgrade wireless network equipment and software Supports district effort to implement SBAC
Lyon	NOT SELECTED AS PRIORITY FOR GRANT
Mineral	NOT SELECTED AS PRIORITY FOR GRANT
Nye	Laptops improve the student-to-computer ratio for SBAC testing in two schools
Washoe	NOT SELECTED AS PRIORITY FOR GRANT
White Pine	NOT SELECTED AS PRIORITY FOR GRANT
eLearning (Elko fiscal agent)	NOT SELECTED AS PRIORITY FOR GRANT
State total	Six districts selected SBAC as a priority for the grant.

4 – Growth Model Priority

Five districts indicated that the Growth Model was a priority for the grant: Douglas, Elko, Lincoln, Lyon, and Mineral counties. These districts linked investments in technology to using online assessments, better access to support student learning, and the need for better

technology support. The investments related to the Growth Model are summarized in Table 9. Douglas and Elko indicated that 1:1 Student Computing devices will be used to support student development and to conduct assessments to measure student growth. Lincoln, Lyon, and Mineral indicated that improvements in infrastructure would support their efforts to implement the Growth Model. Again, when the topic of Growth Model was discussed, district technology coordinators explained the concerns related to limited access, the need for better access, and the need for better Internet service. One district discussed connections between technology needs and its district technology plan. In general the concerns were related to the ability to get and receive data in a real time manner. The effective use of technology in rural districts was repeatedly linked to better access.

These concerns were expressed during both the 2014 and 2015 visits. However, the concerns were magnified during the 2015 visitations, in part, because the districts were experiencing difficulties related to assessment during the period of the visitations.

Table 9: Summary of Activities by Districts Related to Growth Model

District	Implementation linked to Growth Model
Carson City	NOT SELECTED AS PRIORITY FOR GRANT.
Churchill	WAS NOT A SELECTED PRIORITY FOR GRANT.
Clark	WAS NOT A SELECTED PRIORITY FOR GRANT.
Douglas	As discussed above, the district did not expend funds during SY2013-2014. During SY2014-2015, 1:1 Student Computing devices were utilized to collect data related to the growth model and to guide instruction.
Elko	For both years, the district used the 1:1 Student Computing devices to collect data related to student growth. The district has an extensive technology support system related to management of information and support of technology, which is funded from other sources. The 1:1 Student Computing devices enhanced district ability to collect data.
Lincoln	Upgrade wireless network equipment and software Supports district efforts to implement the growth model
Lyon	Infrastructure improvements, Support technology, and software
Mineral	The district was able to improve broadband access which enabled the district to expand its capacity related to data collection. Note: the district has very limited technology that can support instruction and the district was able to develop better access to the Internet in spring of 2015.
Nye	NOT SELECTED AS PRIORITY FOR GRANT
Washoe	NOT SELECTED AS PRIORITY FOR GRANT
White Pine	NOT SELECTED AS PRIORITY FOR GRANT
e4e	NOT SELECTED AS PRIORITY FOR GRANT
State total	Five districts selected Growth Model as a priority.

The grantee efforts related to implementation of the Growth Model focused for the most part on use of technology to improve data collection, assessment, and discriminate information. The 1:1 Student Computing devices and improvement to infrastructure enhanced grantees' ability to collect data.

Section IV: Summary of Activities by Grantee

The following section presents the information structured by grantee by selected priorities which was collect during both 2013-2014 and 2014-2015 school years. Each grantee presented an all-inclusive application for funds to support efforts to integrate technology into teaching and learning within their districts. The districts understand the important role that technology plays in the future of education; therefore, they have worked to leverage the SETIF grants to the fullest extent possible. The following section provides a discussion of the efforts of each of the grantees and their investments in technology.

Carson City School District Activities

The Carson City School District established two priorities for the grant; 1:1 Student Computing and Common Core State Standards. To address these priorities, the district purchased ThinkPads, laptops, software, and increased broadband access. Carson City School District was awarded \$108,774 for FY14 and \$108,774 for FY15. The primary focus of the grant within the district was purchase of 1:1 Student Computing devices. During the first year, the district purchased 1:1 Student Computing devices for 6th grade students. During the second year, the district purchased 1:1 Student Computing for elementary schools.

With funds from the grant, the district purchased ThinkPads which were assigned to individual sixth graders. That is, each sixth grader in the district was assigned an individual personal ThinkPad. In addition, to promote effective used of the ThinkPads, the district used funds from other sources to provide professional development at several levels (teachers,

support staff, and leadership). The district purchased additional ThinkPads from other funds to enable the district to assign individual devices to each middle school student. The feedback from teachers, principals, and others in the district indicated that the ThinkPads were highly effective. For the most part, the students had very good access to the Internet. One middle school building required additional routers and other infrastructure support, which the district provided. However, at the time of the site visits, the problems had been resolved. The teachers and staff who were interviewed indicated that the technology support staff were highly responsive when requests for support were made. Examples of short response time were provided.

Carson City School District was able to develop other sources of funding for extended implementation beyond SETIF moneys. The district purchased enough 1:1 Student Computing devices so that each middle school student had a personal device issued to him or her. The SETIF grant was only a small part of this expenditure. Because of the large number of devices purchased, the district received very favorable pricing. In addition, the district purchased broadband access for the devices. The evaluators were able to observe students using the devices in both middle schools. The feedback from students and teachers was overwhelmingly positive. Lessons, applications, and examples of student work were illustrated.

Interviews and observations indicated that the 1:1 Student Computing project had been rolled out very smoothly. The District found that breakage and damage to devices was extremely low. At the time of the visits, all devices were accounted for. One device had been

broken beyond repair and the corresponding assessment had been paid by the student's parents. The district had implemented appropriate procedures to manage student access. The district is researching the possibility of providing insurance on the devices for the upcoming year, which would provide replacement for loss or breakage. The district used the grant funds in conjunction with other resources to provide 1:1 access to all students within each middle school. The district provided an environment in which every middle school student and each middle school teacher were directly impacted by the integration of technology into the teaching and learning process. However, direct impacts of the SETIF grant was limited to the 6th grade students in SY2014-2015. This is an example of a district that leveraged the grant funds into a much larger project.

Carson City School District has developed a strategic plan which calls for integration of 1:1 Student Computing grades p-12. In the Carson City School District, 1:1 Student Computing will be implemented in phases over the next few years. In year one, the district utilized State Educational Technology Implementation Funds to purchase 1:1 Student Computing devices for 6th grade students. The district utilized other sources to purchase enough 1:1 Student Computing devices to be able to assign a device to each student in both middle schools. At the writing of this report, the district has implemented 1:1 Student Computing for students grades 3-8. Each student in these grades has a 1:1 Student Computing device available. For most students, the devices is assigned to the student at the beginning of the school year and the students are permitted to take the device home each evening and expected to return the device to school the next day. For the most part, the district utilized funds from other sources to implement 1:1 Student Computing. The district has a commitment of

federal grant resources to implement 1:1 Student Computing at the high school in SY2015-2016. Thus, with SY2015-16, the district has implemented 1:1 Student Computing grades 3-12. That is, the district will have 1:1 Student Computing for each student in the district in grades 3-12 at the beginning of SY 2015-2016.

The district has implemented the International Society for Technology in Education (ISTE) standards. The district had developed a walk-through process that is somewhat parallel to the T4S Protocols to assess the extent to which the ISTE standards have been implemented in the classrooms through the district. The district evaluated the overall integration of the technology into the teaching and learning based on the ISTE standards. The district is in the process of conducting a formative evaluation of the technology applications in the classrooms.

In addition, the district developed and implemented an ongoing professional development program to support effective use of technology in the classroom. The district supports a drop-in professional development program for technology applications each week. The feedback indicates that these Professional Development activities are well attended and valuable to the teachers.

Notable Changes From Year 1 to Year 2

The Carson City School District maintained the same set of priorities for both years. . However, the funds were utilized to provide 1:1 Student Computing devices within the elementary schools during the second year of the grant. In combination with other funds,

the district has been able to provide 1:1 Student Computing devices for all students grades 3 through 12 as of SY2015-2016. (again, the district utilized funds from other sources to supply additional computers, professional development, and technical support).

Churchill County School District Activities

The Churchill County School District established two priorities for the technology grant: Common Core State Standards and 1:1 Student Computing. To address these priorities, the District invested in expanded infrastructure and related support activities. This expansion was designed to improve access; thus, supporting district efforts to implement Common Core State Standards and improve its 1:1 Student Computing projects throughout the district. Churchill County School District was awarded \$27,273 for FY14 and \$45,569 for FY15.

For both years, the district purchased 1:1 Student Computing devices and corresponding charging carts. These devices were assigned to specific classroom in sufficient number to enable 1:1 Student Computing for the classroom.

Interviews with key stakeholders indicated that the reductions in funding had resulted in a significant reduction in project scope.

The planned eBook project was reduced to providing a few modules rather than the entire eBook. Nonetheless, all stakeholders were enthusiastic about the eBook project and were committed to continuing the project, if more money were to be allocated for this work.

Significant outcomes of the State Educational Technology Implementation Fund Grants related to 1:1 Student Computing that resulted for the assignment of devices to individual classrooms.

During SY2014-2015, the district continued the goals and corresponding activities established in the grant application and implemented in 2013-2014 school year. The funds were utilized primarily to provide 1:1 Student Computing devices and corresponding carts. These units were assigned to specific teachers.

The district has a contract with a private provider for Internet services. The district is presently investigating other approaches to providing Internet access. The district has very limited number of computers and most of them are older desktop computers. The district is facing significant reductions in the annual budget for SY 2015-2016, including reductions in force. As a result, the district has limited funds to expand 1:1 Student Computing and integration of technology into classrooms beyond the resources that may be available from grants.

Notable Changes From Year 1 to Year 2

For SY2014-2015, Churchill County School District focused on 1:1 Student Computing to continue to support instruction. The 1:1 Student Computing devices were used to support classroom activities related to Common Core State Standard. For SY2014-2015, the district continued activities parallel to the first year. The district purchased additional 1:1 Student Computing devices with carts and assigned these resources to specific teachers. The

additional tables enabled the district to set up three classrooms: one in middle school math, one high school math, and one in special education at the middle school. The 1:1 Student Computing devices were limited in number and were assigned to individual classrooms such that the selected classrooms were able to provide 1:1 Student Computing.

Clark County School District Activities

The Clark County School District established two guiding priorities for the technology grant: Common Core State Standards and online testing via the Smarter Balance Assessment Consortium. To address these priorities, the District invested support for:

1. Development of BLAST Modules;
2. Financial support for teachers' professional development designed by digital coaches;
3. Tuition reimbursement for online professional development pertaining to the Common Core State Standards;
4. And infrastructure and related support activities (e.g., two large capacity proxy servers).

In addition, the Clark County School District expanded infrastructure and related support activities. This expansion was designed to improve access; thus, support district efforts to implement Common Core State Standards and improve Smarter Balance Assessment (SBAC) projects throughout the district. Although SBAC was suspended in Clark County School District, the improvements expanded to Internet filtering, access, and Internet filtering

software. Clark County School District was awarded \$905,660 for FY14 and \$1,066,266 for FY15.

Interviews were conducted with the educational technology director, project facilitators for BLAST, and digital coaches. Whenever possible, these interviews were conducted on site. Some data collection was completed electronically as coordinators responded to a series of key questions developed by the research team. Additional data were collected from teachers who received tuition reimbursements or professional development funds to attend training.

Bringing Learning and Standards Together: BLAST

For a previous cycle of the State Educational Technology Implementation Fund, the district had established a framework to provide online professional development for teachers with respect to the state standards in mathematics (i.e., Bringing Learning and Standards Together: BLAST). The main purpose of BLAST was to provide information to teachers on how best to implement each standard in mathematics. An online format was selected to broaden the available impacts of the training, particularly for teachers who do not have time available for Saturday training. Further, the material is appropriate for teachers that have made a transition to new courses or long-term substitutes in areas in which they don't have extensive training.

The previous project had completed 44 modules for k-8, many of which addressed clusters of standards. At the time of this writing, two former mathematics teachers were hired as project facilitators to complete additional content modules for 9-12. According to the

project facilitators, it takes an average of 1.5-2 weeks to complete a single module. Since the interim report, which included six modules addressing nine standards, an additional 13 modules were created. A total of 36 individual standards are addressed via the BLAST Modules, which are available from: <http://blast.ccsd.net/>.

Each module begins with extensive research associated with tasks, activities, and information about the standard or cluster of standards. Goals for this stage include: a good concept associated with the standard, the ability to contextualize the standard within daily teaching, and an appropriate overview or purpose for the standard. Throughout the development of the modules, the facilitators engage in open dialogue with content coordinators to ensure good implementation.

Each BLAST module is divided into five distinct sections, each of which contains additional links and resources associated with the sections outlined below:

1. Introduction (overview, navigation instructions, standards at a glance)
2. Standard (full text of standard and a video slideshow on unwrapping standard)
3. Assessment
 - a. Provides example questions and guides on assessing the standard
 - b. Provides tasks for the teacher to print out and students to complete
 - c. Provides a list of common misconceptions and considerations with a focus on how to be proactive rather than reactive
4. Instruction
 - a. Includes a summary of best practices

- b. Lists a set of good questioning for open ended responses
 - c. Includes an example lesson video
 - d. Provides a link to calculator resources
5. Collaboration (instructions to meet face to face or online)

BLAST is beginning to position itself as a valuable and enduring resource. During FY15, an average of 512 users accessed the site each month. Between 100 and 130 users accessed the new material. Although this is a relatively low proportion when considering the number of teachers in Clark County School District, as well as the number of new teachers, it is important to remember that BLAST is offered as a resource. BLAST is not required and provides supplementary information for teachers. Regardless, there remains an ongoing need for teachers within the Clark County School District to learn more about the academic standards. In the district, changing schools and courses is a fairly common occurrence. As such, the BLAST team has undertaken a variety of methods to promote the modules, including using Edmodo and Twitter to advertise the material, enhancing existing material with videos on NVACS, and create parent content to empower parents to help students. Regardless, the BLAST modules represent a centralized resource for teachers to learn more. Further, the resource will continue to be available in the future for teachers; once created, the BLAST modules represent increased capacity to provide information and resources pertaining to the Common Core State Standards.

Table 10: BLAST Usage by Month

	August	September	October	November	December	January	February	March	April
Algebra Modules LIVE	2	1	1	0	0	1	0	0	0
Geometry Modules LIVE	1	1	1	1	1	1	0	0	0
Problem Video Additions							9	10	7
Bitly Total Hits	8946	9796	10565	11076	11287	11670	12147	12471	12,708
Bitly Monthly Hits	905	850	769	511	211	323	477	324	237
Edmodo Algebra	62	77	77	77	77	77	78	78	78
Edmodo Geometry	46	56	56	55	54	54	55	55	55
Twitter	41	43	46	50	49	50	53	53	55

Digital Coaches

One of the principal goals for this component of the grant was to increase teachers' competency with technology so they can become independent practitioners, without the aid of digital coaches. Similarly, a goal was to improve teacher technology usage with an overarching goal of increasing student achievement. We want to see the kids using the technology that the district has provided.

The training was viewed as a means to close technology related skill gaps throughout the district. By contrast to other PD, this training was conducted using a coaching format. Even though some coaches were new, the implementation team was more strategic in their selection. Further, the additional year of coaching has strengthened the skills of returning coaches. As a result, the coaches and PD experience was reported to be higher overall quality than the previous year. Additionally, the coaches collaborated to a greater extent.

Unlike many PD efforts, the coaching philosophy is considerably more dynamic and involves understanding teachers' needs while working toward curricular and grant goals. To this end, coaches support teachers, improve student achievement and instruction in the classroom while focusing on standards, create engaging technologies, and support student learning by focusing on best practices, whether or not technology is involved. By contrast to Year 1, which focused on individual schools and support, the trainings in Year 2 were more frequent and conducted on a larger scale (i.e., multiple schools at a time). However, the trainings

were also deeper in terms of content and more obviously connected to standards and student learning.

Within the context of the grant, the funds were specifically allocated for teachers to attend after school or off-contract training related to technology. Funds are allocated for teachers to attend this training. Further, the trends in Year 2 reflected increased scale and quantity of trainings, drawing more heavily on the grant resources. Coaches provided 43 sessions to more than 530 teachers.

Overall, the role of the coaches was to assist teachers in methods that were necessary to integrate technology into the curriculum, including: modeling, planning, working with students (support), finding resources, and acquiring new skills. By contrast to the previous year, it is difficult to ascertain whether or not teachers improved their skills. While the coaches exhibited more strategic approaches to training and emphasized content depth, many teachers changed schools, and many new teachers were added to training. With some teachers, there has been a huge impact and with others, the training did not yield similar results. Coaches inferred that the results would depend on teachers' initial skills, goals, and support from their administrator. Similarly, reports of increased teacher knowledge and integration of technology use were offset by descriptions of dynamic ranges of ability, resources, and implementations. For example, some schools had reallocated budgets for devices and/or were seeking funding from donors while other schools make no such effort.

Collectively, factors like skill, context, and support had a greater impact than the amount of time spent with coaches. Further, coaches have a limited amount of time and are similarly

limited in terms of reach and impact. However, one digital coach indicated that she thought her trainings were better the second year so it helped her to make better presentations and a better plan for what the teachers wanted. For the teachers involved in deeper level trainings, coaches report that their skill levels improved. The teachers were more open to try different things and became more trusting. These outcomes may be due to the fact that teachers finally understand how the coaching model works and how to best use the digital coaches as a resource. Although overall impact is somewhat difficult to gauge, there have been numerous positive reports for those teachers who have both received training and leveraged the training purposefully.

When the teacher training is a success, student and teachers have acknowledged the impacts. Impacts are evident in terms of technology integration, positive feedback from students and teachers, and students' use of technology tools. Further, teachers have been reported to share their ideas with others and have been creating more engaging lessons.

In summary, the interviews with coaches indicated that the program meets needs of teachers, is having impact for those who have drawn on these trainings, and positively impacts students in ways that are impossible without funding support. One coach noted that the money would likely be exhausted in $\frac{1}{2}$ the time given the increased draw and use of the coaching program. This is also due to larger-scale trainings involving 20+ people over longer periods of time deplete the funds more rapidly. Teachers have lauded the content and the off-contract support to learn the skills they need to impact student outcomes.

Tuition Reimbursement

Another component of grant was to provide per-credit reimbursement for online courses from TeacherLine (<http://www.pbs.org/teacherline/>). Unlike the previous year, there was no credit reimbursement for ACSD courses. TeacherLine courses take approximately 15 hours to complete. At the time of the interviews, a total of 117 courses were completed by 92 teachers using PBS's TeacherLine training. Overall, the feedback from teachers confirmed that the experiences were positive, with means above 4.0 for question related to the quality of their professional development or training.

Infrastructure

At the time of this writing, one proxy server to increase capacity and facilitate online SBAC testing was ordered and delivered. In addition to the previous cycle's purchase, the new servers are able to handle almost five times the current capacity and exceed Common Core and SBAC guidelines per pupil. The server includes the purchase of software. Based on previous experience, the server was ordered earlier in the cycle.

Notable Changes from Year 1 to Year 2

In Clark County, there were notable changes between the interim report and this summative report in terms of scale and scope. With respect to BLAST, there has been considerable growth in the project. In addition to a significant increase in content, there has much more widespread use and positive evidence pertaining to the development of the material. In Year 1, the BLAST team proposed to offer BLAST as a PDE course. During Year 2, the course was

offered and delivered to 26 teachers, who found the experience useful and 92.3% would recommend it to their peers. In terms of coaching, the teams approached the second year somewhat differently than the previous year. Trainings were provided in greater quantity and at a greater depth. Overall, those who undertook training exhibited positive impacts. With respect to the Digital Coaches, there were similar elements of growth. Returning coaches were more informed and better able to meet the needs of teachers. There were more training sessions and more teachers receiving training. The content and focus of these trainings was at a higher level than the previous year. With respect to online credit reimbursement, more teachers were provided the option when compared to Year 1.

Douglas County School District Activities

The Douglas County School District established four priorities for the technology grant; as such, the district addressed all four in its application. To address these priorities, the district invested in 1:1 devices, were used to support these four priorities. Douglas County School District was awarded \$75,342 for FY14 and \$151,418 for FY15.

The district has worked to align the purchases with its strategic plan and its technology plan. The increased number of notebooks has enabled the district to increase 1:1 Student Computing and activities related to online assessment, Common Core State Standards, and implementation of the growth model.

Other districts were able to negotiate very favorable purchase prices for devices if they purchased large numbers of computer. With this in mind, Douglas County School District

elected to make the SETIF-funded purchases after it had access to funding for both years. It is important to note that Douglas County School District elected to expend all of the funds during the 2014-2015 school year. Thus, the evaluators did not visit Douglas County School District for the interim report. Douglas County School District did not expend any funds for the time period covered in the interim report.

For SY2014-2015, the district fully implemented the grant. To address the priorities, the district invested in 1:1 devices, which were used to support the four priorities. The district has an extensive technology plan. The addition of 1:1 Student Computing devices with access to the Internet supports the district technology plan. The district utilized the 1:1 Student Computing devices to support SBAC assessment, Common Core State Standards, and to collect data related to student growth.

The district utilized grant funds primarily to purchase 1:1 Student Computing devices that were assigned to classrooms as a package of approximately 30 devices and a cart. In addition to the resources provided through the SETIF Grant, the district supported the integration of technology in many ways. The district utilizes general fund resources and private funds to support technology resources. The district has expanded its access to the Internet.

In addition, the district has an ongoing Professional Development program to support integration of technology into the classroom. The district has highly skilled support personnel who support teachers, maintain the equipment and infrastructure, and facilitate access to Internet.

Notable Changes From Year 1 to Year 2

As discussed earlier, Douglas County School District did not expend any funds during the first year of the grant; thus, all changes associated with the State Educational Technology Implementation Fund Grants were associated with the second year. For SY2014-2015, the district purchased sets of 1:1 Student Computing devices and corresponding carts. These units were assigned to groups of teachers, who jointly shared the resource. The district purchased equipment in late June and early July for implementation in fall 2015. The 1:1 Student Computing devices were purchased and used to support classroom activities related to 1:1 Student Computing, Smarter Balance Assessment Consortium, Common Core State Standards and the Growth Model.

Elko County School District Activities

The Elko County School District established four priorities for the technology grant. Thus, the district elected to address each priority in its application. To address these priorities, the district purchased 134 laptops in SY2013-2014 and approximately 900 additional laptops in SY2014-2015. These laptops were used to support the district's efforts in each of the four areas. The laptops were used to implement Common Core State Standards, the Growth Model, and 1:1 Student Computing. In addition, the laptops were used to conduct online assessments. Elko County School District was awarded \$94,285 for FY14 and the same amount for FY15. Elko County School District provided laptops with a cart to selected classrooms.

Key stakeholders interviewed included district level personnel, technology personnel, teachers, principals, teachers, and some students. They provided examples of positive impacts on the teaching and learning process. Teachers provided illustrations and examples of uses of technology to enhance lessons, to support under achieving students, and to provide support for advanced students. The students provided examples that illustrated how ready access to individual computers increased motivation, quality of work, and support when they were absent.

Students and district staff expressed the concept that the laptops with access to the Internet could enable a shift from traditional textbook driven environment to effective online courses and/or blended courses.

Observations within classrooms demonstrated the use of technology to support students with a wide range of applications. In addition, the interviews with teachers indicated that they were using the technology to individualize instruction. Teachers provided examples of effective use for students with a wide range of abilities. A gifted student explained his ability to work at a fast pace; while several teachers provided examples of how the technology supported students with lesser ability.

During the classroom observations, the level of engagement was high and students were actively working. Students were working individually, in small groups, and with teachers. Teachers moved from student to student and from group to group. Students continued to work on assigned projects and students were not observed off-task.

Consistently, the stakeholders were excited about the laptops in the classrooms. An English teacher explained the effectiveness of the laptops and provided an illustration in relationship to teaching Shakespeare to high school students. She explained that the technology was continually in use. In her opinion the integration of 1:1 Student Computing devices had increased student engagement, student motivation, and student comprehension. She provided examples of each. The teacher explained that the laptops had increased student involvement and decreased behavior problems. The principal echoed these comments.

The Elko County School District has a joint agreement with Great Basin College (GBC) for Internet service. The district contracts for a part of the bandwidth of GBC; however, this is a limiting factor for the district. The shared service will be an increasing concern as the district moves forward with 1:1 Student Computing and with SBAC assessments; Elko will need additional bandwidth that GBC may not be able to provide. Another concern is that as Great Basin College grows, it will not have available Bandwidth to share with Elko County School District in the future.

The district has a strong group of personnel who support its efforts to improve the integration of technology in the classroom. These personnel and many other efforts related to improvement of technology are supported by district funds other than the SETIF Grant.

During the 2015 visit to Elko County School District, Drs. Ewing-Taylor and Thornton visited six schools; Carlin Combined Schools, Spring Creek High School, Spring Creek Middle School, Elko High School, and Wells Combined Schools. In total, ten teachers were interviewed and observed, numerous students were observed, and two site administrators

and three central office personnel were interviewed. The time spent at Elko County School District was very informative.

Elko County School District used the funding for SY2014-2015 to purchase 900 Chromebook and to provide professional development for teachers related to the development of lessons using Chromebook and Canvas course management system (CMS). Based on the interviews with the central office personnel the advantages of the Chromebook included:

- Access to more and better online resources
- All students in the class had access to the Internet and to word processing.
- The Chromebook enabled all students in a class to have access to the Canvas course management system.
- They indicated that the teachers and community were very positive about the advantages of Chromebook.

Stakeholders explained that the district had resolved many of the issues related to access to the Internet. In part, these solutions were related to the close connections to Great Basin College and the resources available at the college.

Staff explained that the Dell Chromebook were very reliable (only 2 of 900 had to be returned because of battery issues) and that the breakage had been minimal during the year. The system used by Elko County School District included a set of 30 Chromebook and a secure cart assigned to specific teachers. The Chromebook were assigned to a classroom and were not taken home by students, though most teachers assigned a specific Chromebook to each student. The estimates of various people interviewed indicated that

most students (60% to 80%) had Internet access at home; however, hard data was not available.

At Wells Combined Schools, a sixth grade math class was observed and the math teacher was interviewed. The lesson focused on a student discovery approach to the development of “how to compute the area of a parallelogram.” The teacher presented a lesson using an interactive white board and selected video supports. The students were asked to compute the area of various parallelograms. The students used the Chromebook to support learning related to the project. Some students used the Chromebook to review the video presented earlier, others used the Chromebook to lookup information, and others simply started on the assigned task of computing the areas of the various parallelograms.

The interviews of the teachers at Elko County School District identified the following central themes:

- The Chromebook supported both teaching and learning in several ways:
 - Access to better researchable information from the Internet
 - Chromebook were more appropriate than other types of technology used in the past (iPads, laptops). Teachers listed various reasons that mostly related to the user-friendly design and quality of the Dell Chromebook that Elko County School District purchased.
 - Teachers said that their time was used more effectively with Canvas and that grading a student feedback was easier to provide.
- Teachers were very positive about the impacts that the Chromebook had had during the past year. The specific examples related in part to the actual area of instruction.
 - A high school English teacher explained how the Chromebook had enabled the class to move faster and to study Shakespeare more in-

- depth. The teacher provided examples of how the students were able to research various questions as they developed their essays.
- The Chromebook enabled all students in the class to word process at the same time.
 - Students were able to access homework and papers from home.
 - Consistently, the teachers expressed positive examples of student learning.
 - Students were more engaged with Chromebook.
 - Chromebook facilitated individualization of instruction.
 - Chromebook allowed teachers to develop more complex assignments aligned with lesson goals and objectives.
 - Chromebook enabled more direct teacher-student interactions as students completed assignments (e.g. essays, research papers, and student questions).
 - Several teachers explained the value of the Canvas course management system that Elko County School District purchased to support teaching and learning. These teachers explained how the Chromebook interacted with the Canvas system.
 - Several teachers provided examples that illustrated how their classes had covered more material and learning “more in-depth.”
- Teachers explained that classroom management problems were greatly reduced since they acquired the Chromebook.
 - Observations in the classrooms indicated that the students tended to be highly engaged and worked independently when teachers were working with other students.
 - Several teachers explained that students were more engaged and provided examples to illustrate.
 - Another reoccurring theme was that students were more motivated to work ahead and more in-depth when working with the Chromebook.

The teachers expressed the belief that students achieved at a higher level when working with Chromebook. For example, one teacher (6th grade math) explained the upper grade

teachers often provided positive feedback related to skills and knowledge of her students as they progressed to the higher grades.

The district has utilized general fund resources to support integration of technology into the teaching and learning process. The district has a highly skilled staff that supports the infrastructure and maintains the computers. The district has developed very good Internet connections between the various buildings and the Internet. These resources have been developed using general fund resources.

The Nevada State Educational Technology Implementation Fund Grants have been a small part of the resource that the district has invested in ongoing resources to develop an effective infrastructure. Such an infrastructure is a necessary condition for effective integration of technology into the classroom and for effective 1:1 Student Computing.

Notable Changes From Year 1 to Year 2

During the second year of the grant, Elko County School District the district increased the number of 1:1 Student Computing devices available within the district (approximately 900 additional) which significantly impacted teaching and learning within the district. The District used the 1:1 Student Computing devices to support of 1:1 Student Computing, Smarter Balance Assessment Consortium, Common Core State Standards and the Growth Model.

Lincoln County School District Activities

The Lincoln County School District established one priority for the second year of the technology grant. Specifically, Lincoln County requested funds to purchase a laptop cart and router. As stated in their proposal, Lincoln County endeavored to remove impediments to their 1:1 netbook initiative, including building capacity for students' devices. Lincoln County School District argued that the Common Core State Standards are addressed by virtue of technology-based online programs like MathXL or Mindplay MVRC. The intent of this cart was to provide additional infrastructure, support for students, and opportunities for credit recovery in reading/literacy programs at C.O. Bastian High School (Caliente Youth Center). Given the time between the proposal and acquisition, additional equipment was purchased. Specifically, Lincoln County School District purchased:

- Laptop Cart - 1
- Chromebook - 20
- Desktop Towers for Computer Lab - 12

Teachers witness seeing daily use, which often fall outside of school hours. Students are recovering credit and improving their reading skills at a significant rate (usually more than 2 years progress gained for each school year). This technology purchase has helped the students at this school accomplish things that would otherwise be impossible. We are grateful for the opportunity to use these funds.

Notable Changes From Year 1 to Year 2

It is difficult to contrast change from Year 1 to Year 2 in Lincoln County. In both years, Lincoln County requested funds to improve their infrastructure. The majority of changes occurred during Year 1, which involved a district-wide wireless network and infrastructure. These improvements continue to provide consistent access to the Internet and directly support Lincoln County School District's 1:1 netbook program. A total of 78 wireless access points, two Gigabit switches, and necessary peripherals (e.g., power adapters, support contracts, cables) were purchased and installed during Year 1. In Year 2, significantly fewer funds were spent. However, the focus was on the school level rather than the district level. Both years impacted students' experiences in a positive way.

Lyon County School District Activities

The Lyon County School District established four priorities for the technology grant; Common Core State Standards (CCSS), Smarter Balance Assessment Consortium (SBAC), Growth model, and 1:1 Student Computing. Lyon County School District was awarded \$126,050 for FY14 and \$104,500 for FY15.

To address these priorities, the district invested in expanded infrastructure, support technology, and software for Fernley Intermediate School and Fernley Elementary School. These investments in technology within these schools are aligned with district goals related to the grant priorities. Thus, the investments support teaching and learning in four core areas, improved assessment, quicker access to data, and promote data-based decision

making. This expansion was designed to improve access; thus, it supported district efforts to implement Common Core State Standards, to implement the Growth Model, to conduct online assessments, and to improve its 1:1 Student Computing projects throughout the district. Without good access, these priorities cannot be accomplished.

Evaluators met with representatives of the Lyon County School District during early May, 2014 and May, 2015. The Director of Testing and Educational Technology, and key stakeholders associated with Fernley Elementary School and Fernley Intermediate School were interviewed. The interviews were very helpful; in that, they provided an understanding of the use of the funds provided by the grant, a view of the district short term goals, long term goals, as well as technology needs for the district.

The district was very positive about funds received from the grant and its ability to expand technology for educational applications. The importance of high speed Internet service was discussed in detail. The need for high quality Internet was linked to the district's ability to implement Common Core State Standards, Smarter Balance Assessment Consortium assessments, Growth Model, 1:1 Student Computing, and other advanced applications of educational technology. The district is very concerned about its ability to support continuous increases in applications of technology. Lyon County School District clearly explained that primary issues focused on bandwidth, speed of connectivity, and technology support personnel. Over the past several years, Lyon County School District has consistently worked to develop and maintain high quality Internet service.

Stakeholders indicated that the district would continue to work to expand services to students and to support applications. However, they were very concerned with the impacts on the system as the district moved to implement programs which increased the demand on the Internet. They provided examples which illustrated the potential impacts of the investments. These impacts included improved efforts associated with implementing 1:1 Student Computing, online assessments, and continuous student access to the Internet. Stakeholders explained in detail that rural Nevada school districts have access to very limited bandwidth; as a result, the problems include both access to technology and access to high speed Internet.

During the May 2015 visitation, the district provided examples of the improved access to the Internet, and explained the importance of high quality Internet connections for all students and all teachers, k-12.

For several years the district has committed a significant amount of general fund resources to development and implementation of technology. In addition, the district has worked to develop other grant sources to support technology. The district utilized the SETIF Grant to support the development of technology in the classroom. However, a major part of the cost of the implemented technology has been from general funds sources.

The district has a highly skilled staff that develop, implement, and maintain the technology within the district. In addition, the district has supported ongoing Professional Development for teachers.

The district projected a functional life of technology of 4 to 5 years. As a result, the district has developed a plan cycle to replace computers at the end of their useful life. However, such a replace program will create a significant burden for the district as it moves forward with 1:1 Student Computing.

The district was concerned about the continuously increasing demands on the Internet and the restrictions imposed by distance in rural communities. Because the school serves a high population of low-income students, many do not have Internet access at home. These concerns were expressed during both visitations.

During SY2014-2015, the district utilized the grant funds to continue the focus on improvement of Internet access and improvement of infrastructure. These funds were focused on improvement at the elementary level. The district has an extensive technology plan; therefore, these funds represent only a small part of the funds used to improve instructional technology within the district. These funds were primarily focused on improvements in infrastructure at specific elementary schools.

Notable Changes From Year 1 to Year 2

For SY2014-2015, the district continued activities parallel to the first year. Lyon County School District continued to expand infrastructure capacity within the district which in turn, supported district efforts to implement 1:1 Student Computing, Common Core State Standards and the Growth Model. For example, the district enhanced Internet access at the elementary levels with primary emphasis at the Fernley Elementary School. The increased

infrastructure enhanced the ability of teachers to effectively implement 1:1 Student Computing throughout the elementary school.

Mineral County School District Activities

The Mineral County School District established three priorities for the technology grant: Growth Model, Common Core State Standards, and 1:1 Student Computing. To address these priorities, the district purchased 26 reconditioned desktop computers, two printers, and Gradepoint curriculum (software). These computers and related software were used to support an alternative education program, which enabled credit recovery through the use of technology. The district has had difficulty with the expansion of bandwidth therefore funds were carried forward into FY15. Mineral County School District was awarded \$69,469 for FY14 and \$30,000 for FY15.

Evaluators met with representatives of the Mineral County School District during May 2014 and May 2015. The teacher for the "new technology" classroom described above and the district grant writer were interviewed in 2014; the technology director was interviewed in 2015. Both were very excited about the classroom that had been setup with the funds. They provided examples of credit recovery, student engagement, increased student motivation, and decreased behavior problems. The District was very pleased that the SETIF Grant had enabled the purchase of computers and support for the one classroom described above. In the judgment of the stakeholders interviewed, the new technology had had significant impacts.

Staff members were very concerned in 2014 with the low quality of Internet service. They indicated that it was common for the system to “crash” several times during a day. This provided special problems for students who were testing at the time of the crash. They discussed ongoing issues of lack of quality Internet service. The challenges to access the Internet and to establish an acceptable bandwidth were discussed at length. Concerns were linked to the ability to apply 1:1 Student Computing, online SBAC testing, and quality Internet service. Both repeatedly explained problems associated with multiple daily system crashes, requirements to limit the number of computers connected at one time, and negative impacts on teaching and learning.

However, the technology, the curriculum, and the corresponding courses have enabled the district to address individual student needs, to provide credit recovery, and to enhance the course offerings. Primary emphases include improvement of graduation rates and increased student achievement. Students using computers were observed. The district was extremely positive about the positive impacts of the grant funds for students.

The district was able to develop improved access to the Internet during spring of 2015. This greatly enhanced the capacity of the district to start to integrate technology into instruction. The available technology in Mineral County SD is very limited. The State Educational Technology Implementation Fund Grant was very significant for the district.

During the May 2015 meeting, Mineral County School District indicated that the improved access to the Internet has had significant positive impacts on teaching and learning at all levels within the school district. Examples were provided related to individual classrooms,

courses, adult education, credit recovery, online courses, and dual credit courses. In addition, district personnel explained how the higher speeds and better connections improved state testing and teacher efficacy related to use of the Internet in the classrooms. They explained that "testing was going very well." The district plans to get e-rate approval which will result in 80% credit on the monthly access costs.

Mineral County School District explained that they were working with Great Basin College to develop a distance education classroom within the district. The district explained how the leadership is working to inform the community about the access to the Internet and implications for teaching and learning.

The district indicated that many of the concerns expressed in the 2014 had been resolved because of better access to the Internet. Problems solved related to system "crashes," testing, lack of lack of quality Internet service, and student access. The personnel interviewed explained the related to positive impacts related to teaching and learning. They explained how the technology, the curriculum, and the corresponding courses have enabled the district to address individual student needs, to provide credit recovery, and to enhance the course offerings. Primary emphases include improvement of graduation rates and increased student achievement. Students using computers were observed. The district was extremely positive about the impacts of the grant funds related to teaching and learning. They emphasized the improved access would have ongoing positive impacts.

Mineral County Schools District has very limited resources available for the development of instructional technology. The district has a limited staff assigned to the development and

implementation of technology. SETIF Grant provided a major component of the technology resources available within the district. These funds enabled the district to develop better access to the Internet. The SETIF funds represent a major component of the instructional technology available within the district.

Notable Changes From Year 1 to Year 2

For SY2014-2015, the Mineral County School District was able to obtain better Internet service which supported its efforts to utilize the Internet to support improvement in teaching and learning. At the time of the visitation, the district had obtained much improved access to the Internet which was being used to support district activities related to 1:1 Student Computing, Common Core State Standards, and the Growth Model. The small amount of funding that the district received has significant impact on the ability of the district to improve teaching and learning. Before the grant, the district had minimal access; with the support of the grant, the district had significant improvement in access.

Nye County School District Activities

Nye County School District originally proposed a plan to help students create digital portfolios based upon the Nevada Academic Standards in Math with Gabbs Elementary and Tonopah Elementary schools. Grant funds were used to secure 28 laptops and a cart, which students would use in conjunction with Glogsters to show their understanding of each standard. By the end of Year 1, technical issues had prevented students from using the laptops to create portfolios or using technology in general. During Year 2, teaching with

technology and using the laptops improved significantly. In Tonopah, students at the middle school level created e-portfolios, as well as paper-based portfolios. One goal of the elementary and middle schools was to increase technology usage, including improving test scores and knowledge of alternate careers.

In Gabbs, the laptops are reported to be in use at the 4th grade and higher levels to communicate with penpals, word processing, math, smart board connectivity, and for testing purposes. In addition teachers from Tonopah report that students use the laptops for online writing from a website called Boomwriter.com, an interactive social writing site.

In terms of impact, Nye County reports that students have greater access, increased motivation, improved basic skills in content and technology, and presentation skills. Similarly, teachers have reported that they enjoy the greater flexibility, access, and potential to impact students' learning.

In some regards, connectivity continues to be an issue. In Year 1, the county's Internet connection prevented students from loading the e-portfolio program and in Year 2; the slow connection caused some applications to crash while streaming material. Further, the district continues to experience budgetary constraints. There was limited professional development for teacher to learn how to use the computers. There will also be one fewer teacher in the next academic year.

Notable Changes From Year 1 to Year 2

In Nye County School District, the majority of activities took place during Year 2. Initial purchases were made during Year 1, but teachers reported running out of time due to technical issues. As a result, e-portfolio activities, technology integration, and implementation results were new to Year 2.

Washoe County School District Activities

The Washoe County School District established three priorities for the technology grant application: Common Core State Standards, Smarter Balance Assessment Consortium, and 1:1 Student Computing. However, the Smarter Balance Assessment Consortium priority was removed as a priority for the grant because the district received reduced funding. Washoe County School District was awarded \$270,796 for FY14 and \$197,336 for FY15.

For Washoe County School District, all activities related to State Educational Technology Implementation Fund Grant were framed by the district vision of 21st Century Learning. Washoe County School District established a Strategic Plan and the SETIF Grant and other grants (e.g. Teacher Incentive Fund Grant (TIF4)) have been aligned with the strategic plan and essential 21st Century Competencies. The SETIF Grant was specifically focused to support meaningful technology integration in classrooms. This was supported by observations and by interviews of key personnel. The district planned the investment to align with its efforts to implement Common Core State Standards and improve 1:1 Student Computing. To these ends, the district invested the funds in a variety of projects which are

outlined below. The district continued activities started in 2013-2014 school year during SY2014-2015.

As outlined in the grant application, the Washoe County School District aligned efforts with its strategic plan, its established 21st Century Goals, and Common Core State Standards. The district invested in several important programs to integrate technology into instruction programs. The investments included professional development for teachers with related costs, salaries for teachers for e-instruction development, costs associated with release time for teacher professional development, and equipment costs.

The investments include:

- Collecting and editing classroom videos demonstrating 21st Century Learning
- Roll out 21st Century Educator Badge Program by providing professional development that frames technology integration as an imperative for 21st Century competencies.
- Professional development that placed emphasis on integration of technology within that context of high quality teaching and learning. The goal of these workshops promoted the use of technology to foster innovative instruction aligned with Nevada Academic Content Standards (NVACS).
- Established a cohort program for teachers to develop technology applications (8 each year)
- Developed a physical space to conduct 21st Century Learning professional development for teachers to learn to apply technology in the classrooms.

- Extensive professional development (414 teachers in 2013-2014 school year, & 382 teachers in SY2014-2015)

21st Century Learning Academy

Washoe County School District established its 21st Century Learning Academy, which is designed to improve teaching and learning in alignment with Common Core State Standards. Funds were used to provide stipends for teachers' professional development to attend 21st Century Learning Academy. For this component of the professional development, the Academy focused on building teams of teachers from a few sites as teacher leaders in application of technology within their schools. The intention of this professional development and corresponding district support is to develop teams of teachers capable of applying and sustaining the use of technology aligned with 21st Century Learning initiatives. These efforts are unique to the individual building. The applications range from elementary teachers in self-contained classrooms, to high school ELL teachers, to middle school math teachers.

Professional Development

Funds were used to provide stipends for instructors to provide professional development for ActiveBoard (interactive electronic whiteboards) training for teachers. The district has started to develop a series of short instructional videos that blend technical "training" with classroom instructional applications for ActiveBoards. The director of technology for the district indicated that these videos were available for on-demand viewing throughout the

district and were available for use by other districts throughout the state. These videos were used in in-service offerings for teachers; as a result, teachers will be able to select videos that are most appropriate for these needs.

Some professional development funds were used for digital video classes – 11 teachers participated in an in-depth exploration of the uses of digital video in classrooms to support 21st Century Competencies.

The district worked with four schools to enable it to provide professional development related to integration of technology into the classroom. This enabled the district to improve the quality of professional development for teachers at four separate locations across the district.

The district provide extensive professional development for teachers related to implementation of technology into the classrooms (for SY2013-2014 414 teachers and for SY2014-2015 382 teachers).

Cohort of Teachers for Application of Technology

For both years of the grant, Washoe County School District selected a cohort of eight teachers to receive technology for classroom instruction from the SETIF grant, through an application process. Applications were sought by district-wide announcement through principal advisory emails. The district established a cohort of teachers in each of the two years of the grant. The teachers received support, professional development, and met as a group on a regular basis. The teachers represented elementary school, middle school and

high school and various content areas. Some teachers received a set of computers and a cart and some teachers shared a set of computers and a cart with another teacher. All of the teachers in the cohort committed to 10-12 credits of professional development related to integration of technology into classrooms.

Feedback Related to Impacts Of SETIF

For both years of the grant, the interviews of teachers and key personnel, the observations of classrooms, and limited demonstrations by students all indicated that the rollout of the SETIF projects was successful. Key district personnel associated with the SETIF Grant were interviewed at length each year. The teachers and students provided examples of the impacts of the 1:1 Student Computing. Both groups provided examples and explained how the technology supported teaching and learning. Teachers explained the value of the Professional Development provided by the project. The district level personnel explained the value of the various components of the SETIF Grant.

The district collected feedback and conducted an ongoing evaluation for the various components of the professional development related to the SETIF projects. The district collected information during 2013-2014 school year and SY2014-2015 related to the impacts of the various SETIF projects within the district. These efforts included ongoing data collection associated with:

- Teachers' implementation of the six dimensions of 21st Century Learning

- Classroom observations including coding of teaching practices aligned to the six dimensions
- Feedback related to professional development,
- Continued collection of anecdotal impacts from teachers
- Number of teachers “enrolled” in badge program, progressing through “Explorer” to “Practitioner” and “Leader”

The data indicated that the rollout of the various SETIF projects were successful and aligned with the proposal.

The district provided examples of feedback from various workshops and other sources. The comments included the following:

“Thanks for last week’s professional development on 21st Century Skills. Loved it! Please, please, please bring her [the trainer] back to dive deeper into this topic. :)”

Strengths of ITC: “The variety of topics covered and new information provided regarding integrating technology ... I am still trying to process all the completely awesome stuff we were presented with ... I am already integrating this into my curriculum now.”

“This class was more than I could have wanted. It introduced me to 21st century teaching, which I was completely unfamiliar with. It made me sit down and spend time reviewing web tools and games that I actually can use in my classroom.”

"For someone who has never taken an online course it really turned out to be very easy to navigate ..."

"I enjoyed the communication with other education professionals and especially liked hearing from people in all grade levels and positions. ... THANK YOU! Now I have a re-energized look at teaching, which is in the back of my head, as I plan lessons and am anxious to incorporate many of the new ideas I have."

"The structure was friendly to people who may not be technologically proficient."

"variety of activities that are applicable to the classroom. Copious resources, structure and guide for use of resources – the diversity of the projects – the excellent communication with and from the course instructors – the pacing of the various assignments – the emphasis on what 21st century skills are and what they should look like in the classroom. The layout and navigation of the course was well designed."

"I am really glad I took this class (Integrating Technology into the Classroom). It stretched me to move out of my comfort zone in the area of technology. I am happy to say I have incorporated more technology these past few weeks than ever. Thanks"
from an elementary school teacher

"Here is a YouTube video made by a student in my SSTS class. He is a student that can be difficult to work with at times.... But as you can see from the video he can also be an awesome learner/teacher. Thanks to the 21st century classes I was able to

point him in a direction and he picked up and ran with it. I look forward to using more from what I have learned from the 21st century classes.” Teacher provided access to a copy of the video.

“Before I did this activity, I thought that the basic premise for 21st century learning revolved around more tech-based lessons (things like simply using a projector, smartboard, etc.). And now I see that it's SO MUCH MORE. ... it makes me wonder how I can redesign nearly ALL of my lessons to incorporate the philosophy of 21st century learning. I'll have to start small and go from there...” Teacher participant in Integrating Technology into the Classroom

The sorting activity directly impacted my teaching TODAY, as the Collaboration and Interdependent Work was particularly meaningful for my current group of students. I created an assessment that focused more on the aspects of the rubric. The assessment was purposely designed as a group project, emphasizing shared responsibility, substantive decisions, interdependent work, and working together. I was proud to apply the information immediately to my classroom. MS teacher, Integrating Technology into the Classroom participant

Feedback from teachers related to changes in their instructional approach included the following:

I am less and less the "sage on the stage." I am making my old lectures the homework and the activities in the classroom. 'flip that learning!' [change from teacher centered instruction to learner centered instruction]

"I think my students are becoming more independent learners, better problem solvers, and better able to look critically at their work and the work of others. Since the entire core team works together, students learn this from all 4 of us. When I had my 6th graders create vocabulary slides the first thing they asked was if they needed to cite their clip art (at least they asked). I had several 7th graders cite their clip art in their Geometry Construction books (without asking). Also, all 3 grades 6-8 have become very comfortable using Google Docs - I'll see posts on Edmodo "Hey xxx, get on Google Docs so we can work on our project." MS Math teacher

The interviews of teachers and key personnel, observations of classroom, limited demonstrations by students all indicated that the integration of technology into these classrooms was effective. The feedback was consistently positive and illustrated positive impacts of the SETIF projects within Washoe County School District. The SETIF projects are well received by both teachers and students and have positively impacted teaching and learning. It is important to note, that in a large district the impacts of limited funds do not provide global impact to the total district; however, these projects were viewed by district personnel as strong pilot projects. Washoe County School District elected to focus its investments in specific areas aligned with 21st Century Learning Environment, professional development, and integration of technology into the classroom.

Again, it is important to note that documents and interviews of district level staff indicated that projects had been reduced in relationship to the amounts of funding reductions from the original grant proposal. However, the district was very positive about the impacts of the funded projects.

The funds from the SETIF grant provided the following resources:

- Development of a collection of classroom videos demonstrating 21st Century Learning
- Roll out 21st Century Educator Badge Program by providing PD that first frames technology integration as an imperative for 21st Century competencies,
- The district added a new cohort of eight teachers to implement instructional technology during SY2014-2015.
- Create 21st Century Learning Space to support district PD opportunities the district worked with four separate schools to provide space for Professional Development for teachers related to applications and development of instructional technology. This enables the district to model application during Professional Development for groups of teachers.
- Professional Learning funded by the 2013-15 SETIF grant focused on the development and piloting of several classes during the 2013-14 school year. These classes made up the 21st Century Educator Program, and included the Explorer Badge, the Practitioner Badge, and the Leader Badge.

The two-credit Practitioner Badge class, developed with SETIF funds, serves as the foundational Professional Learning session which discuss and apply the 6 Dimensions of 21st Century Learning – Collaboration, Knowledge Construction, Skilled Communication, Use of Technology for Learning, Real-World Problem Solving and Innovation, and Self-Regulation.

During the 2014-15 school year, this professional development provided a systematic foundation for 21st Century Learning through WCSD, including all the district CTE teachers. This instructional framework and professional learning supported improvement in instructional technology in the following ways:

- Creation of a district-wide common language and a common understanding of 21st Century competencies.
- Improved communicate about best practices related to teaching and learning.
- Improvement of instruction based on identified competencies,
- Established a framework for the integration of technology into the teaching and learning process,
- Supported a culture within the district of teacher to teacher support that fosters 21st Century skills,
- Expanded applications of technology beyond small pockets of excellence,
- Created a focus of the NVACS (CCSS and NGSS in particular) to improve teaching and learning.

Washoe County SD expanded the effectiveness of SETIF funds using multiple sources of funds. For example, the district used Title II funds to support three days of Professional Development for selected teachers. The training supported implementation of 21st Century Educator: Practitioner Badge class. The 21st Century Learning Leaders Network explained that Title I and Title II funds will be utilized to support integration of technology into the classrooms during SY2015-16.

The 21st Century Teacher Cohort was expanded in 2014-15 to include eight additional teachers. The initial SETIF grant application proposed creation of a dedicated professional learning space equipped with 1:1 technology for exclusive use in professional learning. However, the district decided to use these funds to increase the availability of technology for students by adding teachers to the cohort. In cooperation with selected schools, the professional development related to integration of technology into classrooms, can this technology for professional learning in five classrooms around the district after-hours. Thus, students are able to use the technology during the day, and professional development can be conducted in five tech-rich locations around the district.

For example, in spring 2015, the district conducted four concurrent sessions of the blended learning version of the Practitioner Badge class at four separate locations in different parts of the District, on four separate nights of the week. Thus, if a participant could not attend a specific session, then they were able to attend a session on an alternate night.

The district continued to create videos of exemplary teaching practices centered on the Six Dimensions of 21st Century Learning and application of technology. The feedback indicated

that the teachers were very positive about the effectiveness of district developed videos. The district has developed a video library that is available to teachers (see www.wcsd21.com for a hyperlinked list).

The feedback related to the Professional Development and related activities has been positive. The district technology support group has been asked to provide additional support for teacher groups, schools, and others in the upcoming school year. Requests for support to expand use of technology application include the following:

- Multiple school related to groups who working with 21st Century Learning into their School Improvement Plans and site Professional Learning plans,
- The entire ELL Department,
- All WCSD Librarians,
- The Department of Curriculum and Instruction,
- The Department of Professional Learning.

Each of the above provides an indication of the expanded impacts of the SETIF grants beyond the direct expenditures of the grant.

Notable Changes From Year 1 to Year 2

For SY2014-2015, Washoe County School District continued to focus on professional development and 1:1 Student Computing. The Washoe County School District expanded the technology cohort group of teachers, worked with 4 schools to establish 4 technology training sites to enable expanded professional development within the district, developed a

library of videos of exemplary teaching practices, and expanded its support for technology in many areas (e.g. ELL, CCSS, NGSS). The district efforts focused professional development and related activities to support current and future efforts related to applications of technology within the classroom.

White Pine County School District Activities

The White Pine County School District focused on three priorities: 1:1 Student Computing, Smarter Balance Assessment, and Common Core State Standards. The funds were invested in 105 Chromebooks, which were issued to selected teachers in "classroom sets" with carts for storage. The criteria for selection included a demonstrated interest in integrating technology into their classroom. The district used other funds to purchase carts and to support professional development. White Pine County School District was awarded \$30,660 for FY14 and no funds for FY15.

That is, the district received its total award during the first year; this enabled the district to purchase a larger number of laptops during the first year. The district implemented the project upon receipt of the equipment in early 2014. Chromebooks are small laptops with a 12 inch screen and a keyboard. Chromebooks have a small amount of internal storage and the ability to connect to the Internet. The primary storage is through "cloud computing." In addition, Chromebooks can be used in a standalone format. The district has developed policies and procedures related to ChromeBook use and has restricted access to approved applications.

Evaluators met with the representatives of the White Pine County School District during early May 2014 and May 2015. The key personnel interviewed at White Pine County School District included central office personnel, a math teacher and an English teacher. The classrooms of both teachers were visited and students were observed using the Chromebooks. Examples of student work were discussed.

The evaluators interviewed and observed teachers and students on both visitations. In addition, key personnel and principal were interviewed. The interviews indicated that the 1:1 Student Computing had supported the improvement of instruction, student motivation, quality of work, and engagement. The classrooms with the 1:1 Student Computing devices provided examples of each of these. The district personnel explained that the district had utilized other funds to purchase addition devices.

The English teacher provided examples of applications within her classroom. She explained that the Chromebooks were linked to increased student interest, improved quality of assignments, and increased student motivation. She provided examples of each. She was extremely pleased to have access to the 1:1 Student Computing technology.

The math teacher was equally excited about the 1:1 Student Computing technology. He explained that he was able to locate applications that support most math concepts which he taught. He explained that the use of Chromebooks promoted higher student interest and increased motivation. He provided examples of student successes and examples on increased student engagement and demonstrated the use of laptops to support his teaching and learning. One of the math classes was observed. Students were actively engaged in the

lesson. They worked individually and in small groups. The lesson observed represented a blended approach; students used online lessons, small group activities, and class work. The teacher provided examples of support materials that were aligned with the lesson, which he was able to offer students. The software recorded student progress and provided practice exercises. The illustrations provided by the teacher were impressive. Both White Pine teachers were very positive about the technology.

The district was concerned about the quality of the Internet connection. Several of the people interviewed provided examples. As an illustration, it is common practice to limit the number of computers with access at one time because of capacity. The district restricted all other student access to the Internet during the SBAC, with the hope that the system could support a few students testing online. Quality Internet access is a significant issue for White Pine County School District.

The district has a small but effective team of professionals who support the development and implementation of technology. These personnel are supported by either the general fund or other grants.

The information collected during the 2015 visit to White Pine County School District focused on the impacts of the expenditures of 2014 because all of the district's funds had been expended during 2014. What were the impacts related to the impacts of 1:1 student computing devices on the achievement within White Pine County School District. Evaluators were able to observe two classrooms that used the 1:1 student computing devices, to

interview a large group of 8th grade students and to interview district personnel and two middle school teachers.

The general reactions related to access to the 1:1 student computing devices were very positive. The students provided examples of how the 1:1 student computing devices were able to support both teaching and learning. The examples included the following:

- Access to the Internet improves our ability to get information and to answer questions.”
- “I can type faster and better than I can write.”
- Students can learn at their own pace.
- Improved student learning; for example, “all students in our class have completed the math program at our level (8th grade).”
- Use Google to learn how to write formulas. Students provided examples.
- If the teacher is busy, then students can get support from the Internet.

Evaluators observed a science class that was studying wave characteristics. The class was able to model curves with various characteristics. There were lively interactions among students, the teacher, and the various models. Students were able to explain the characteristics of the various models and how each model was developed on the 1:1 student computing devices.

Evaluators observed a language arts class. The students were using the 1:1 student computing devices to complete an assignment related to word definitions and usage. The

students accessed the Internet to complete the assignment. Students were able to explain exactly how the 1:1 student computing devices related to the assignment.

The two teachers indicated that the 1:1 student computing devices improved teaching and learning in the following ways:

- Improved student motivation
- Provided individual instruction at the students needed level
- Allowed advanced students to progress
- Supported remedial activities for slower students
- Better access to additional support materials
- Access to teaching activities from the Internet

The White Pine County School District grant writer was very positive about the impacts of the grant. He explained that the small grant (\$30,000) was very large for the district. It had provided the catalyst for the district to purchase additional 1:1 student computing devices: the district purchased approximately 150 additional Chromebook with district funds. He indicated that the community and the school board had developed an understanding of the importance of 1:1 student computing devices.

Concerns of the White Pine County School District include the following:

- How could the district replace the 1:1 student computing devices as they aged and/or were broken?

- How could the district provide appropriate broad band access to support district wide use of 1:1 student computing devices?

The district indicated that the State Educational Technology Implementation Fund Grant had supported a change in the culture of the district with respect to technology in the classrooms. Because of the success of the limited number of 1:1 Student Computing devices that were purchased using grant funds, the White Pine County School District Board elected to purchase additional devices from other funds.

The district will be required to cut its general fund significantly for SY 2015-2016. Thus, the resources available to the district in the future will be highly dependent on specific grants.

Notable Changes From Year 1 to Year 2

The White Pine County School District received no funding for SY2014-2015, from the grant. During the first year, the district purchased a series of 1:1 Student Computing devices that were utilized in both SY2013-2014 and SY2014-2015. However, the district did purchase additional 1:1 Student Computing devices from other funds. The district reported that the purchase of additional 1:1 Student Computing devices was directly linked to the successful utilization of those purchased through the State Educational Technology Implementation Fund Grant. The devices enabled students to access and utilize additional sources of information and enhanced the teaching and learning with respect to the 1:1 Student Computing, Smarter Balance Assessment Consortium, and Common Core State Standard.

eLearning for Educators (e4e) Activities

During both years of the grant, the evaluators interviewed the director of the eLearning for Educators (e4e) project. The activities funded by the project were very limited because of the very limited funding from the Nevada State Educational Technology Implementation Fund Grant. However, the e4e continued to work toward providing services for teachers across the state.

The state wide online professional development project, eLearning for Educators (e4e), was awarded \$5,000 for FY14 and \$5,000 for FY15. These funds were used for administrative salary. Elko County School District served as the fiscal agent for this grant. The eLearning for Educators project is operated as a collaborative effort of Washoe County School District, Elko County School District, and KNPB Channel 5 Public Television. The courses are online and can be structured to meet timelines of individual teachers. The e4e project employs an individual who is responsible for monitoring discussion boards, managing facilitators, gathering, collecting, and reporting of data, registration, marketing, writing applications and receiving approval for in-service and graduate credit, and ensuring the development of new courses each year.

Evaluators met with the project director, to discuss the e4e project. It is a state-wide project to provide professional development for teachers throughout Nevada. The funding for the project was significantly reduced during the current round of SETIF Grants. The funding was

reduced to \$5,000 for each year from \$65,000 for the previous round of SETIF awards. These funds were used for administrative salary for the project.

In past funding cycles, the SETIF Grants were used for development of online classes, to provide stipends for instructors, and to purchase online classes. As a result of the limited funding, these types of services are no longer purchased through the grant. However, the group continued to work to provide limited online classes through other sources as funds are available. It is important to note that grant funding is only a minor part of the funding for the e4e project; however, the level of funding resulted in a significant reduction in available professional development for Nevada teachers.

It is important to note that technology is a tool to support effective teaching and learning. It does not represent a silver bullet to magically transform learning. However, in today's educational setting, high quality technology is a basic requirement. Extensive research has linked effective use of technology to student achievement. However, direct links between technology and improved student achievement are difficult to establish.

Notable Changes From Year 1 to Year 2

In past funding cycles, the SETIF Grants were used for development of online classes, to provide stipends for instructors, and to purchase online classes. As a result of the limited funding, these types of services did not be purchased through the grant. However, the group continued to work to provide limited online classes through other sources as funds are available. It is important to note that grant funding is only a minor part of the funding

for the eLearning for Educators project; however, the level of funding resulted in a significant reduction in available professional development for Nevada teachers.

Section V: Results of Surveys

Two surveys were administered for Year 2 and the Summative Report; one was distributed to the teachers who were directly impacted by SETIF funds and the other was distributed to the funded districts' technology directors. The following two sections briefly discuss the results of each of these surveys.

Drs. Ewing-Taylor and Thornton developed two surveys related to the State Educational Technology Implementation Fund Grants. The focus of the surveys was to collect information from teachers directly impacted by SETIF funds and from district technology directors. The first was designed for district directors of technology and the other was designed for classroom teachers. The surveys were administered through electronic means. All directors were asked to complete the survey and each director was asked to forward an electronic link to all teachers who were directly impacted by the SETIF grants. For example, a teacher who received 1:1 Student Computing technology in his/her classroom would receive the teacher survey link. Thus all technology directors, who work in funded districts, were asked to complete the survey designed for the directors. Each in turn, the directors were asked to send the link for the teacher survey to all teachers in their district who were directly impacted by the funds. The intent was to survey all technology directors and all teachers, who were directly impacted by the grants.

Results from Teacher Survey

A brief survey was developed to assess the impact of the SETIF funds on teachers and their students. During Year 1, the timing of this survey was not ideal. May is close to the end of the school year and teachers are typically bombarded with end-of-year activities. However, there was good response from several districts. Survey data for the final, summative report was collected earlier and enabled follow-ups and to avoid end of year activities. A total of 228 responses from teachers were received.

The following graphs provide summaries of the results. The majority of the teachers indicated that they had taught more than 10 years (63%); this information is summarized in Figure 1. Most of the respondents taught in grades 6th through 8th, many of the respondents indicated that they taught multiple grade levels (e.g., 6th, 7th, and 8th). This information is summarized in Figure 2. The respondents taught a full range of subjects with the core subjects most often indicated (Social Studies, Math, ELA, and Science). This information is summarized in Figure 3.

Figure 1: Years Taught

How many years have you been teaching?

Answered: 199 Skipped: 29

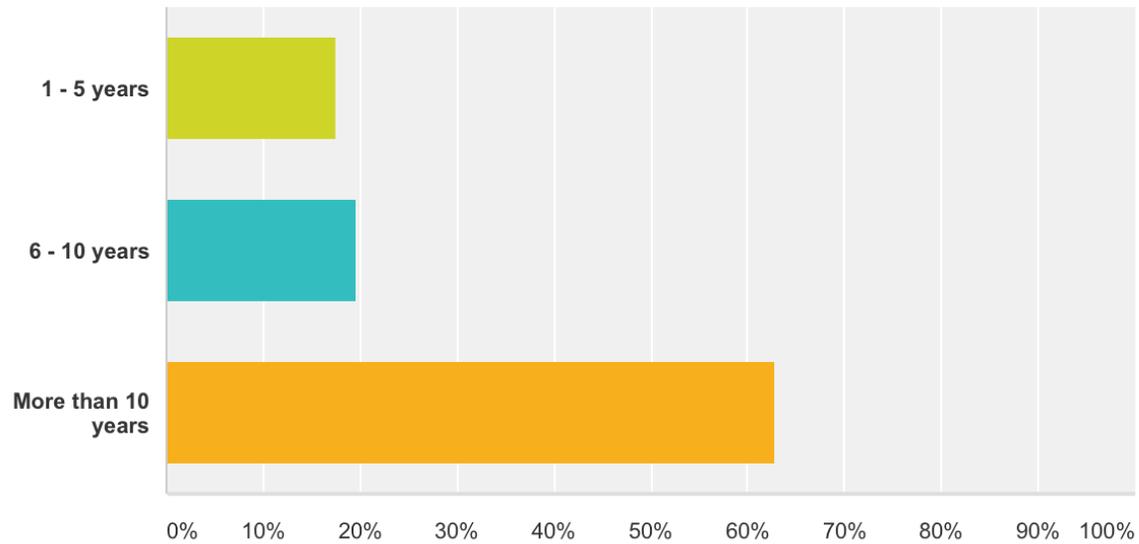


Figure 2: Grades Taught

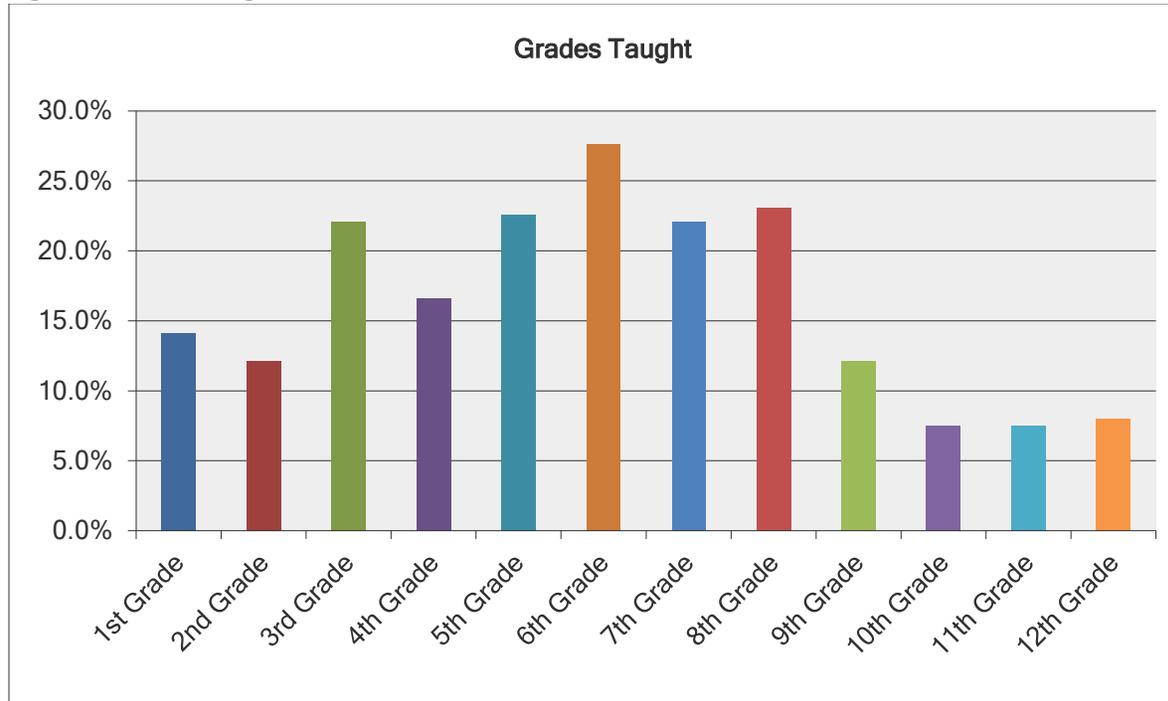
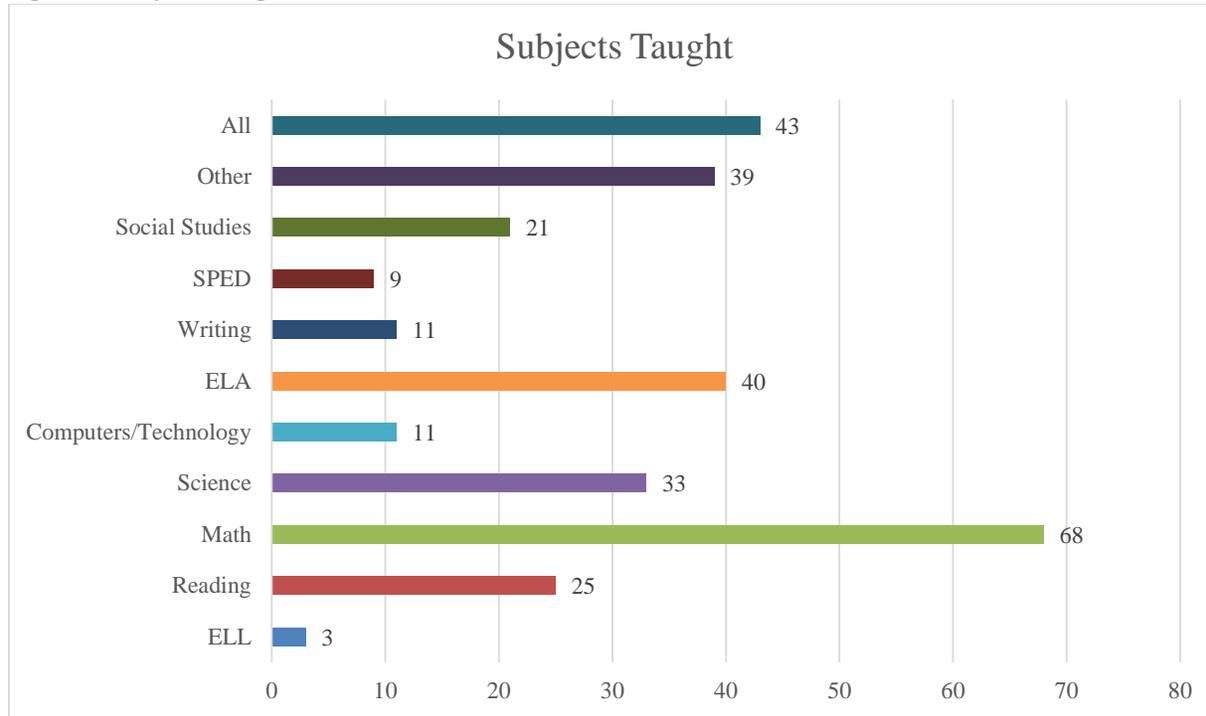


Figure 3: Subjects Taught



Several districts provided professional development in technology from a variety of sources, including other teachers, digital coaches, or professional presenters. Questions related to the value of the professional development indicate a general satisfaction with the training. There were seven items related to professional development with five response choices ranging from Strongly Disagree (1) to Strongly Agree (5). Table 11 contains a summary of the questions and responses. In general, respondents seemed to feel that the professional development, which they received, was valuable. Further, these scores increased in all areas from the previous year.

Table 11: Professional Development

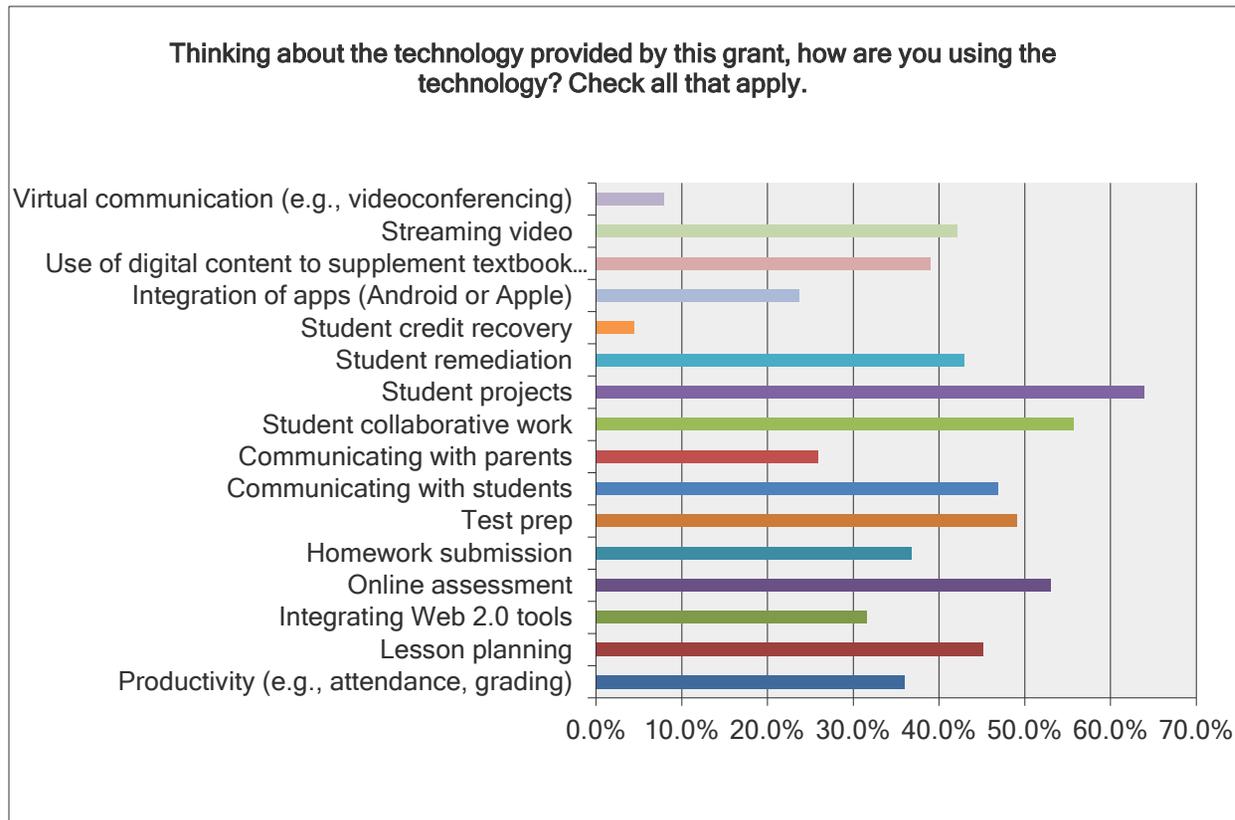
Statement	Mean Response Y1 (n=91)	Mean Response Y2 (n = 228)
Participating in the technology training was a good use of my time.	4.01	4.21
Participating in the CCSS training was a good use of my time.	3.86	4.07
The available training was relevant to my immediate technology integration needs/interests.	3.96	4.17
I learned a technology skill/strategy that I could immediately put to use in my classroom.	4.07	4.28
I had sufficient support in learning how to use the technology in my classroom.	3.94	4.02
The PD provided me with resources that will help me integrate technology into the CCSS.	4.01	4.07

The PD provided me with strategies for planning lessons that integrate technology into the CCSS.	3.83	3.96
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Homework submission and test preparation

When asked how they were using the SETIF technology, respondents replied with a wide variety of uses. The most frequently listed uses of the SETIF technology were 1) student projects (146 responses); 2) student collaborative work (127 responses); 3) online assessments (121 responses); 4) test preparation (112 responses); 5) Communication with students (107 responses); and 6) lesson planning (103 responses). The least used technologies were 1) virtual communication (18 responses) and 2) credit recovery (10 responses). Figure 4 summarizes the responses. Thus, the teachers indicated that new applications were most often related to student projects and online assessments. While the least used application was virtual communication.

Figure 4: Uses of SETIF Technology



A final section of the survey asked teachers about their beliefs regarding educational technology and its effects in the classroom. The survey is based on the self-efficacy research of Bandura (1997), Heneman, Kimball, and Milanowski (2006) and Ingvarson, Meiers, and Bevis (2005). These researchers indicate that teachers with greater self-efficacy generally are more

effective and their students achieve at higher levels than teachers with lower self-efficacy. The results of this survey will be compared to the results of the same survey next year and gains or losses in self-efficacy will be discussed in the final report. For this section, there were 24 questions which the respondents answered using a five-point scale: Nothing (1), Very Little (2), Some Influence (3), Quite a Bit (4) or A Great Deal (5). For the purposes of this report, Table 12 shows the questions and scores on the self-efficacy section of the survey. In general, self-efficacy ratings increased during Year 2 when compared to Year 1. Further, there were more responses during Year 2, lending more weight to the means.

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Table 12: Teacher Self-Efficacy³

Question	Nothin g	Very Little	Some Influen ce	Quite a Bit	A Great Deal	Mean Rating
How much can you do to get through to the most difficult students?	0.97% 2	1.45% 3	31.40% 65	45.41% 94	20.77% 43	3.84
How much can you do to help your students think critically?	0.97% 2	0.00% 0	11.59% 24	55.07% 114	32.37% 67	4.18
How much can you do to control disruptive behavior in the classroom?	0.97% 2	0.97% 2	13.04% 27	50.72% 105	34.30% 71	4.16
How much can you do to motivate students who show low interest in school work?	1.45% 3	1.45% 3	28.99% 60	45.89% 95	22.22% 46	3.86
To what extent can you make your expectations clear about student behavior?	0.97% 2	0.00% 0	4.83% 10	32.85% 68	61.35% 127	4.54
How much can you do to get students to believe they can do well in school work?	0.97% 2	0.00% 0	11.59% 24	47.34% 98	40.10% 83	4.26
How well can you respond to difficult questions from your students?	0.97% 2	0.00% 0	9.66% 20	47.83% 99	41.55% 86	4.29
How well can you establish routines to keep activities running smoothly?	0.97% 2	0.97% 2	6.76% 14	29.95% 62	61.35% 127	4.50
How much can you do to help your students value learning?	0.97% 2	0.00% 0	14.01% 29	46.86% 97	38.16% 79	4.21

³ Proportion of responses and the number of responses.

How much can you gauge student comprehension of what you have taught?	0.97%	0.00%	6.76%	51.69%	40.58%	
	2	0	14	107	84	4.31
To what extent can you craft good questions for your students?	0.97%	0.97%	12.56%	52.66%	32.85%	
	2	2	26	109	68	4.15
How much can you do to foster student creativity?	0.97%	0.97%	20.29%	53.14%	24.64%	
	2	2	42	110	51	4.00
How much can you do to get children to follow classroom rules?	0.97%	0.48%	5.80%	47.83%	44.93%	
	2	1	12	99	93	4.35
How much can you do to improve the understanding of a student who is failing?	0.97%	0.97%	20.77%	55.07%	22.22%	
	2	2	43	114	46	3.97
How much can you do to calm a student who is disruptive or noisy?	0.97%	1.45%	18.84%	52.66%	26.09%	
	2	3	39	109	54	4.01
How well can you establish a classroom management system with each group of students?	0.97%	0.48%	8.70%	42.51%	47.34%	
	2	1	18	88	98	4.35
How much can you do to adjust your lessons to the proper level for individual students?	0.97%	0.00%	12.08%	50.24%	36.71%	
	2	0	25	104	76	4.22
How much can you use a variety of assessment strategies?	0.97%	0.48%	13.04%	49.28%	36.23%	
	2	1	27	102	75	4.19
How well can you keep a few problem students from ruining an entire lesson?	0.97%	2.90%	14.49%	49.28%	32.37%	
	2	6	30	102	67	4.09
To what extent can you provide an alternative explanation for example when students are confused?	0.97%	0.00%	7.73%	50.24%	41.06%	
	2	0	16	104	85	4.30
How well can you respond to defiant students?	0.97%	1.93%	20.77%	44.44%	31.88%	
	2	4	43	92	66	4.04

How much can you assist families in helping their children do well in school?	1.45%	5.31%	31.40%	38.65%	23.19%	
	3	11	65	80	48	3.77
How well can you implement alternative strategies in your classroom?	1.45%	0.48%	12.56%	55.56%	29.95%	
	3	1	26	115	62	4.12
How well can you provide appropriate challenges for very capable students?	0.97%	0.97%	10.14%	52.17%	35.75%	
	2	2	21	108	74	4.21

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Changes from Year 1 to Year 2

For the teacher survey, there were a few differences between Year 1 and Year 2. There were many more participants who elected to complete the survey for Year 2. Although the sample is rather small due to the fact that the evaluation typically coincides with the end of the year and related activities, the Year 2 sample was more than double the previous year. Even with more responses, the overall ratings were higher. While it is difficult to determine whether or not these changes are due to the funded projects, they do support the hypothesis that the projects are positively impacting teachers and students.

Educational Technology Directors Survey

As discussed above, a survey was developed and sent to the educational technology directors of each grantee county. Eleven directors responded: Carson City, Clark, Douglas, Elko, Lincoln, Lyon, Nye, Washoe, and White Pine. The first eight questions asked about numbers of students, teachers, and schools. These questions were primarily used for verifying information gathered from other sources. Three questions were open-ended and designed to allow greater flexibility and to elicit greater detail than the questions in the teacher survey. Because there were 11 respondents, all answers to the open-ended questions are detailed in Appendix A.

In general, the responses of the technology directors were positive. They indicated that the impacts of the SETIF grant were positive. They indicated that they had been able to solve

problems. Consistently, throughout the evaluation process, the need for additional funding was an issue.

Changes from Year 1 to Year 2

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Section VI: Discussion and Comments

This report is a result of a two-year evaluation of the impacts the Nevada State Educational Technology Implementation Fund Grants. This section provides a summary of themes, discussion of the limitations on the evaluation, and an overall summary of findings.

Recurring Themes

The data collected from the interviews, the survey data, and feedback from the key district personnel (technology directors and grant coordinators), provided indicators of basic themes. These themes are discussed below.

Nevada State Educational Technology Implementation Fund Grants

First, ALL districts were extremely positive about the benefits related to the Nevada State Educational Technology Implementation Fund Grants. Each district provided examples of how the funds had been utilized to expand their technology capabilities and access to the Internet. Teachers provided examples of how students had increased ability to conduct research, complete advanced assignments, individualize instruction, and motivate students. The various examples included quality of work, student engagement, expanded lesson plans, comprehensive data management programs, and improved access.

Students provided positive examples of the impacts of the technology on the teaching and learning process. Students explained that the technology increased student motivation and focus. Students explained how the 1:1 Student Computing devices helped students to get

and stay organized. Examples illustrated how the 1:1 Student Computing devices improved the quality of both assignments and corresponding student work.

Adequate Connectivity to the Internet

Connectivity to the Internet is a significant concern of district personnel. The issues related to conductivity are complex and diverse. Districts have utilized the Nevada State Educational Technology Implementation Fund Grants and district resources to develop access to the Internet. The metrics are speed of response rates and bandwidth. Effective applications of 1:1 Student Computing at a district wide level and applications such as state wide testing require significant increases in bandwidth. Consistently, district personnel expressed concerns related to the implications when “all students” have 1:1 Student Computing devices. District personnel discussed problems associated with the statewide assessment effort. A consensus of opinions was that the state system lacked the capacity to handle to massive load expected during state assessment.

In a similar manner, many of districts expressed concerns about the capacity of their local networks to handle the load when 1:1 Student Computing was available to all students.

Limited availability of computers

Many schools have a limited number of computers. With the exception of Carson City School District, districts lack the capacity for 1:1 Student Computing. At present, many districts have 1:1 Student Computing for a small percentage of their classrooms by a set of devices (approximately 30 devices) and a charging cart. The data indicates that all schools in

the districts have computer labs which are equipped with desk top computers. Many of the computer labs in the elementary schools are recycled from high school computer labs. In general, districts plan to phase out the desktops computers and replace them with laptops. Most district cannot assign individual 1:1 Student Computing devices to each student because of lack of capacity (infrastructure and available computers).

Need of Professional Development

The districts consistently expressed a need for effective Professional Development to effectively utilize technology. The districts have developed various methods to provide Professional Development for teachers. Some utilized weekly sessions, some utilize monthly events, and other utilized large district-wide events. However, all indicated that teachers need additional training and support to provide effective integration of technology into the teaching and learning process. The teachers indicated that the various types of Professional Development were effective and that additional training is very important. The teachers consistently praised the quality of professional development and ongoing support provided by the various districts.

Increasing Demands for New Improved Technology

A significant characteristic of evolving technology is that the unit costs have consistently decreased and capabilities of the unit devices have consistently increased. In addition, the demands for increased technology within the classrooms have increased geometrically. A few years back, educators discussed a new computer lab with pride and school

administrators expressed a goal “to have a lab in each building.” Today, educators believe that 1:1 Student Computing is a necessary condition for effective teaching and learning in the 21st Century. At present, the state of Nevada has proposed 1:1 Student Computing, starting with the middle schools. However, districts are concerned about the money required to fund and to implement such 1:1 Student Computing is not available.

Replacement as Technology Ages

A concern of the grantees was how to replace technology as it ages. The functional life of technology in schools is 3-5 years. Funds to replace aging technology represent a significant problem for districts. It is not possible for the districts to rely of grant funding to replace aging technology. The options for the districts are limited.

Limitations of this Evaluation

For the purpose of this report, “impact” was defined in relation to the stated objectives in each district’s original proposal. Although this was the only legitimate approach to evaluation, this presented a few challenges. First, each district was able to determine how their projects fit the overarching goals described in the RFP. As a result, there was tremendous diversity among the different projects. Many districts simply requested funds to develop their infrastructure and promote student connectivity. Others (e.g., Washoe County and Clark County) engaged in complex, highly involved projects. As a result of this variability, there is limited value in evaluation instruments that are delivered at the state level; these instruments are too coarse. By contrast, the interviews and individual data

collection provide the evaluators with the ability to comment on specific events within districts. Unfortunately, this level of analysis does not promote an analysis of trends across districts or across the state in any way other than general trends.

The second challenge was the change to funding. Specifically, several districts were unable to address their original goals due to changes to their budgets. This forced districts to triage their objectives and decide which ones would remain. They attempted to best satisfy the original goals, but entire initiatives were eliminated from the revised proposals in some of the smaller districts. Often, the funds were used for the purpose of equipment or infrastructure. Without specific, academic or content objectives to consider, evaluating impact in these cases is difficult at best.

Summary

It is the professional opinion of the evaluators on the SETIF grants project that all of the participating districts accomplished the goals that were established in each districts' proposal, as modified after funding reductions. Specifically, each district implemented programs that were aligned with the goals and objectives that were originally described. It is important to note that some time has passed between the Request for Proposals and this writing. It is understandable that some slight adjustments were made to expenditures. For example, one district was able to purchase additional devices due to a price drop.

Ultimately, the implemented programs are aligned with the proposed projects with proportional reductions related to funding. Some districts leveraged the SETIF money with

other funds to expand implementation of technology into the classrooms. There were no significant deviations from the revised plans and all grantees have implemented their activities with fidelity to their grant documents.

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Appendix A: Ed Tech Directors' Responses

Question: What are the impacts of these grant funds on students and teachers in your district? Include impacts that you have seen as well as impacts that have been reported to you by participating teachers or students.

- Greater student involvement. Self-paced instruction. Data expects to show greater higher thinking skills and student collaboration within classroom.
- Younger students are having the opportunity to work on computers. Students enjoy the change from paper and pencil. As the students progress, the newly learned skills will follow them. Teaching the younger students to key board accurately will allow them to feel more at ease with computer tasks. Parents have the opportunity to look at their students work and it is archived. Remote, rural students have been given tools that they otherwise didn't and wouldn't have. Remote, rural students have the opportunity to explore beyond their classroom.
- Many teachers who have received technology and professional learning opportunities have reported they are substantially transforming their instructional practice toward creating student-centered learning environments. I have seen that there is a strong correlation between 1) the amount and quality of professional learning opportunities focused on fostering student-centered uses of technology and 2) instructional planning that fosters student-centered uses of technology. Cohort members' classrooms serve as examples of student-centered instructional uses of technology, with several cohort members hosting visitors seeking input on decisions for technology adoption. Visitors have included district leaders, evaluators of other grants, and parent groups seeking to fund technology initiatives in their own schools. A powerful impact is that because the Cohort was established with the purpose of giving substantial flexibility to individual teachers to exercise their professional capacity within a broad framework of 21st Century Competencies, we are seeing a wide range of examples of outstanding technology integration and student-centered learning. For instance, in a second grade classroom students learning a math concept have been allowed to demonstrate their learning through their choice of technology (different groups of students chose making a movie, writing a description using Educreations, or using concrete manipulatives (a non-tech option)). Students in a middle school math class can view teacher- and student-created videos demonstrating concepts, and learn at their own pace by selecting appropriate videos, and pausing, rewinding, and re-watching them. Students in this class also create their own videos to demonstrate learning, and for sharing with other students to enhance their learning. Students from this class were featured at the State's Digital Learning Day at the state legislature, during the first week of the legislative session, and they explained to legislators and the media how they were using technology (purchased through SETIF) for personalized learning. Empowering teachers with a framework for understanding why technology is important, and where it can fit within

instruction, has resulted in examples of learning environments that fit the content area, grade level, teacher dispositions, and student abilities and interests. More broadly, SETIF has funded professional learning opportunities for teachers across WCSD. This PD seems to be resulting in an increased use of technologies that are already present in schools. Additionally, according to anecdotal feedback, it is resulting in teachers planning instruction that helps students develop 21st Century Competencies even when these teachers do not have regular access to technology for instructional purposes. (See also below for additional outcomes/impacts.)

- The use of Chromebook within the classroom has taken off like wildfire! It has far exceeded my expectations within this first year. I have seen students actively using them on a daily basis and teachers proudly demonstrating how they have organized Google Classroom (and selected apps) to help students access and share information. Based on my observations and what has been shared with me by teachers, students find the Chromebook very easy to use and the applications and collaborative environment 'second nature'. Once they are taught the basics, they are able to run with it! Below are comments from the site administrators whose sites received the devices. They were asked this same question (#9): *Impact has been tremendous! Trainings utilize the technology to create collaborative environments. Trainers model ways the technology can be utilized and hold discussions about it. We can gather numerous artifacts of utilization, but considering the length of time and how the implementation has been rather organic it is amazing how these devices and their classroom use has been embraced. *Increase familiarity with technology. Keyboarding skills and improved digital literacy. *Students using learning to utilize technology for educational purposes. They are learning to keyboard, execute software, do research, share documents and communicate. We are also utilizing the Chromebook for a variety of assessments that provide us with valuable learning data. *Increased access to technology and Internet. Increased resources via the web. Students have become far more proficient using technology as well as accessing the Internet and utilizing resources available both at school and in their homes. Teachers are able to explore more resources within their classroom via the use of these laptops rather than relying on the computer lab. teachers are also better able to look at students' work on Google share and make recommendations, edits, etc. Students are also able to see what their classmates are doing and increased collaboration. *The amount of collaboration between students and between students and teachers is 10 fold. Google Docs and Google Classroom is being utilized by a number of my teachers, which then impacts the students and their learning. In several of my formal observations, I see lessons that incorporate technology into the writing process. This grant has allowed us to get our students access to more technology, and it has also helped the school in having more options for testing. *excitement by students and staff and parents, kids have the web at their fingertips during the day and the interactions with writing and editing is great and more engagement for the kids, staff can view and respond immediately to assignments, there are some amazing real life application tasks for students to solve and the tech skills are increasing all the way around! *Students have been able to use the Chromebook to do the following: access software programs like Type to Learn, Spatial Temporal Math, Accelerated Reader, and Reading A to Z. Students are able to type final pieces of writing for informational, opinion, and narrative forms. Students have used the Chromebook for research purposes.

- Fernley Intermediates school students have experienced many positive impacts as a result of the one-to-one initiative. With the netbooks Students are afforded more opportunities to utilize online resources and 21st century skills. Students have also reported that the netbooks allowed them to research science projects and class reports in their classroom. The students look forward to using them during the day. FIS teachers have reported many positive impacts from this grant project as well. Teachers state that students are highly engaged in lessons utilizing classroom technology. Netbooks are also used as a tool to provide student remediation and enrichment throughout the day. In addition teachers have been able to assign work for students that is monitored online through purchased web resources. The netbooks have also allowed teachers to test students (MAPs and District Assessment) in their classroom during a convenient time instead of trying to schedule a time in lab with 20 other teachers. The teachers and students have become accustomed to utilizing the netbooks as valuable instructional tools in the classroom daily.
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- The greatest impact that we have seen is a significant increase in student engagement. We have also observed increase in technology integrated lesson in the classroom we have visited.
- Teachers are integrating technology into their lessons on a regular basis, utilizing a variety of tools and attending on-going professional development.
- It has allowed us to implement realtime feedback to students. Teachers have imbedded technology in their instruction an student engagement has increased.

Question: What are your plans to document outcomes for your project, e.g. student achievement, teacher proficiency?

- Teacher survey of impact on students. Observation of classes and student interviews. Impact on test scores for 2013-2015.

- Each school will provide a report to the district Examples of student work will be observed The district will ask if additional equipment and projects are being asked for by other staff
- Observations of teacher instructional practices and student activities in the 21st Century Teaching and Learning Cohort. These observations collect quantitative data using the WCSD 21st Century Competencies framework (see www.wcsd21.com). We are collecting qualitative feedback on professional learning opportunities for teachers. A significant additional outcome of this project has been that because the 21st Century professional learning opportunities (21st Century Educator program, Camp 21) have been so well received, the district has created a 21st Century Learning Leaders Network, which includes a certified staff member at each of the district's 94 schools. The district has leveraged the successful projects funded with SETIF funding to allocate increased Title II funding to increase schools' capacity to support 21st Century Learning environments through the Leaders Network. Another outcome is that several Cohort members have become active leaders in the district by preparing and facilitating professional learning sessions at the WCSD Saturday Cafes, and Summer Camp (in collaboration with CUE-NV). Cohort members have also collaborated in the filming and creation of videos representing practices that align with the WCSD 21st Century Competencies framework. These are posted at www.wcsd21.com, and are used frequently in PD sessions.
- Project success will be measured by site testing schedules showing the use of the new computing devices in non-traditional lab settings (libraries, classrooms, etc.) and the length of time/days spent testing using the laptops. All things being equal we expect to see school sites being able to adequately schedule all classes for testing within specified assessment windows, provide for timely make-up testing, and decrease the amount of down-time in computer labs and libraries that are typically used during assessment windows. In addition, active monitoring of the volume of use of the student computing devices for assessments and instructional activities. Existing resources within our IT department are capable of determining how frequently a device has been used on our network.
- The Implementation of this program started at the beginning of second semester for SY11-12. The State MAPS and CRT scores for the spring 2012 were considered a "baseline" for the students. Wexfor.org reported that although NV changed the scoring procedure for writing assessments during the 2012-13 school year, while the 1:1 program was in place, FIS met AYP and saw a 97 percent increase over the previous year, in the percentage of student who met or exceeded the benchmark on the State Writing Assessment. In 2011-2012, only 34% of 5th graders met or exceeded the benchmark, compared to 67% who met or exceeded it in 2012-2013. With the SY 14-15, LCSD will continue to monitor and record the success of the program using the following assessments: NV Writing Assessment, State CRT and MAPs. FIS will continue to document outcomes for this project by assessing student data and with student and teacher feedback.
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- We conduct classroom observation and collected data regarding the teachers use of technology and the inclusion of specific lesson components in their technology integrated lessons. We also rate students level of comfort with the technology they are using.
- We have enlisted the services of an independent evaluator to measure the impact of this technology on student achievement and teachers use of technology in their classrooms. This evaluation encompasses grades 3 - 8 where all students have their own laptop. The report will be published in the summer of 2015.
- We are in the process of creating student stories and teachers successes on YouTube. This year, we will also look at changes in student achievement.

What are the major roadblocks to implementing the priorities you proposed in your grant?

- Bandwidth in district. Eventual obsolescence of Chromebook without ongoing funding to replace/upgrade. Teacher training to restructure instructional practices.
- Bandwidth Many of the people that planned the grant have moved out of the district. New people have had to pick up where they left off. However, the teachers that have taken over have been amazingly grateful for this opportunity! Finding a portfolio software that was suitable was difficult so the teachers administering the grant used their own ideas to complete the projects.
- The biggest roadblock is the fact that educational technology funding has not been consistent and reliable in Nevada. Under SETIF, projects last only two years. Educational technology initiatives have suffered from lack of sustained, consistent funding. The research on change suggests that support for teachers needs to be sustained for 3-5 years. We will continue to do what we can to support the teachers who have received technology and professional learning in this initiative, but will have to do so without the promise of further funding.
- Based on our evolving views, planning, and learning involving 1:1 instruction and environments, we changed the desired device that was purchased with these funds from a Windows based laptop to a Google Chromebook. The Chromebook is an excellent device for use with assessments (formative, interim, and summative), is the perfect device in a 1:1 environment, and is easy to manage at a district IT level. However, with the large influx of these devices which along with the Google apps and Classroom are a change from the Windows environment, it has taken more professional development support and training to get teachers up and running with their use. Increased PD and ongoing support and instructional use training will become a major priority for us in the next few years. This fortunately hasn't been a

'major roadblock' but more of an unexpected and pleasant awareness on our part! We have teachers who are clamoring to use the devices, but are asking for more training and support!

- FIS has encountered a few roadblocks to implementing this project. Initially cellular service was a roadblock to implementing our project as a limited number of students we able to connect to the Internet via cellular service. Now that we have wireless students are able to connect. With this project, FIS has struggled with netbook repairs and service as there was /is no available funding for a support person(s). These duties could easily take the time of a fulltime person as repairs, management of netbooks and updates/ service is imperative to keep the technology working and in the hands of the students. FIS has relied heavily on a few staff members, voluntarily, to keep these net books working. FIS has also utilized the district IT department, with limited staffing, to support this large project. FIS appreciates this grant and continues to work tirelessly and find ways to keep the netbooks working for as long, as possible as it is extremely beneficial for students and teachers.
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- The biggest road block we have run into providing teachers enough time to create technology integrated lessons that they can use with their students. We have been able to provide teachers in the technology project with a sub once a month and allow them time at our training center to create lessons. They are supported during these work session by our technology trainer.
- Funding for technology 1:1 for all grades is a challenge, as is the cost of replacement devices. In addition, having the technical staff to support this number of devices is also a challenge for the district to afford.
- The infrastructure of our school district.