Southern Nevada
Regional Professional Development
Program

2013-2014 Self Evaluation

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EXECUTIVE SUMMARY

The Southern Nevada Regional Professional Development Program (SNRPDP) is committed to increasing student achievement by providing high quality professional development to teachers and administrators. SNRPDP instituted two major new initiatives in 2013-2014: (a) comprehensive support to administrators and teachers as the Nevada Educator Performance Framework (NEPF) was introduced and (b) additional of professional development services to increase parental engagement.

SNRPDP also assisted teachers, administrators, students, and parents throughout the state in understanding and effectively integrating the Nevada Academic Content Standards for English Language Arts and Mathematics, as well as the Nevada State Academic Content Standards for Science. SNRPDP continues to partner with Nevada Department of Education, the other two RPDPs, the state's school districts, and Nevada's institutions of higher learning in these and other professional development efforts.

SNRPDP provides professional development on content-related topics through university for-credit courses, workshops, in service sessions, professional presentations, classroom observations, and one-on-one mentoring of teachers and administrators. SNRPDP targets these wide-ranging professional development services toward the needs of teachers and administrators, as well as parents and students.

> *Because of the tremendous volume of high quality resources that are available on SNRPDP's website, about 228,800 unique visitors came to www.rpdp.net in 2013-2014. This translated to just under 7.5 million hits and 320 gigabytes of data downloaded by teachers, administrators, students, and parents.*

SNRPDP continues to provide comprehensive services to rural counties in 2013-2014, while at the same time, SNRPDP maintained a high level of support to Clark County School District. SNRPDP's offerings stressed the preparation of teachers and administrators for the CCSS to ensure increased student achievement supported by these more rigorous and comprehensive standards.

SNRPDP is continually looking for ways to increase its efficiency and effectiveness. Therefore, SNRPDP stays at the forefront of providing professional development services using the latest technologies supported by research-based best educational practices.

Thousands of pages of materials, including site facilitator's guides, which SNRPDP developed for the CCSS summer institutes, are available on the Nevada's Department of Education website, as well as each of the RPDPs websites. SNRPDP's website also has an abundance of video clips that provide professional development on the CCSS and other content-related topics.

> *The SNRPDP website (www.rpdp.net) contains a huge amount of educational materials for teachers, administrators, students, and parents. These resources include instructional videos, lesson plans, student notes, practice tests, and content in mathematics, English-language arts and literacy, and science.*

Typically, educational program evaluations rely heavily on gauging participant perceptions about the quality of the training, including implementation and logistical factors. However, a far more challenging task is to delve deeper by examining how professional development activities directly influence student achievement. SNRPDP responds to this challenge by conducting a research-based analysis gauging the extent to which the program is impacting student achievement. The entire SNRPDP staff participated in this effort by collecting significant amounts of data from training sessions, classroom observations, and statewide assessments. The long-term results of this analysis have yielded the following conclusions.

Conclusion 1. *SNRPDP professional development activities result in increased student achievement.*

Comparisons show that greater gains occur when a school has a high number of SNRPRP-trained teachers, with both quantitative and qualitative data sources providing compelling evidence for this conclusion. Specifically, the following ideas emerge from these various data sources:

a) Sustained professional development that focuses on the content teachers teach results in greater student achievement gains.
b) Content training that is supported at the school, region, and district level leads to greater student achievement gains.
c) Teachers who reflect on their practice while undergoing sustained professional development show stronger change toward research-based methods, which in turn results in greater student achievement.

d) As suggested in the *Backwards Assessment Model*, teachers working together in sustained professional development activities results in greater student achievement compared to teachers working alone.

Conclusion 2. *Pre and posttest data show that teachers who have participated in our classes make appreciable gains in content knowledge.*

The Esmeralda, Lincoln, Mineral, and Nye County School Districts rely almost exclusively on the SNRPDP to provide teacher and administrator professional development services. Because of this reliance, the SNRPDP is committed to providing comprehensive training and resources to these districts. Clark County School District has its own Curriculum and Professional Development Division (CPDD) and other professional development departments; however, these divisions and departments also are responsible for curriculum design, procurement, and implementation, as well as professional development. Therefore, SNRPDP works synergistically with CPDD and all CCSD professional development entities. Through mutual collaboration, SNRPDP and CCSD maximize training opportunities and avoid duplication of efforts.

The breath of SNRPDP services and the measurable impact on student achievement gains result from a dedicated staff, as well as beneficial partnerships with Clark, Esmeralda, Lincoln, Mineral, and Nye County School Districts, the Legislative Council Bureau, other RPDPs, the University of Nevada, Las Vegas, the Nevada Department of Education, Nevada Association of School Administrators, and a host of other high-quality organizations. As we consistently strive for improvement in providing superior quality professional development services and for gains in student achievement, SNRPDP will continue to work closely with these organizations. SNRPDP relies on this philosophy of continual improvement and productive partnerships to optimize the investment made by Nevada citizens for high-quality education.

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I. Introduction and Background

The Nevada Legislature formed the Regional Development Professional Development Programs (RPDPs) in 1999 to offer professional development to teachers and administrators. The law specifies that all professional development services be aligned with state academic standards. The state is currently divided into 3 service regions: the Northeastern RPDP, Northwest RPDP, and Southern Nevada RPDP (SNRPDP). The SNRPDP provides services to teachers and administrators in Clark, Esmeralda, Lincoln, Mineral, and Nye Counties. SNRPDP was also responsible for statewide professional development of administrators. The overall goal of the SNRPDP is to

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Offer professional development focused on the content teachers teach, how they teach it, student performance, and changes in instructional and assessment strategies that result in increased student achievement.

To gauge progress toward this goal, SNRPDP evaluates the impacts of its activities on deepening teacher and administrator content knowledge, strengthening the implementation of effective pedagogical techniques and instructional strategies to teach this content, and ultimately, influencing student achievement gains through better teaching. SNRPDP's evaluation effort is consistent with that mandated by the State Legislature, where each RPDP is required by law to conduct an ongoing self-evaluation and submit an annual evaluation report to the Legislative Committee on Education through the Legislative Council Bureau. This report satisfies that legislative requirement.

SNRPDP is committed to conducting a thorough self-evaluation and using the information obtained from this process to continuously improve the quality of its professional development services. We consider evaluation to be an integral part of SNRPDP and use evaluative techniques in our planning and implementation, and in both formative and summative modes. Reflecting on the quality of our services and the level of impact that we provide to the teachers and administrators in Clark, Esmeralda, Lincoln, Mineral, and Nye Counties, and always striving for increased student achievement in these districts, ensures that we are maximizing the public investment in our program.

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II. Evaluation Plan

SNRPDP's evaluation is guided by five basic questions, agreed to be the basis for all RPDP self-evaluations by the RPDP Coordinating Council (see questions listed below). In general, there are four modes of educational program evaluation: (1) planning, (2) implementation, (3) formative, and (4) summative (Rossi, Lispey, & Freeman, 2004). To answer these questions, SNRPDP uses all of these four modes, and because of the variety of evaluation modes required by these questions, this report discusses specific methods with each question—in the section in which results are presented—to increase readability and understanding. However, a general description of the questions and the applicable evaluation modes for each are discussed, in brief, below.

1. How is the SNRPDP/NELIP program organized?
   This first question focuses on the first two modes: planning and implementation. When evaluation is involved in program planning, the intent is to align the overall program goal to the large range of professional development activity objectives. This alignment focuses the activities of the program and increases the chances for success. Implementation evaluation assesses whether the program is being conducted as planned, and is commonly thought of as accountability. In answering this question, the evaluation looks specifically at the SNRPDP's planning processes, program structure, and operational procedures to gauge the extent to which the program is complying with the spirit and letter of the Nevada statutes that govern the RPDPs.
   Section 1 of this report discusses this evaluation question in detail.

2. What is the nature and extent of SNRPDP/NELIP training?
   This question also focuses on evaluating how the SNRPDP is implementing its program. SNRPDP is mandated by law to train teachers and administrators, with the intent to increase their understanding of subject matter content, as well as the pedagogical techniques and instructional strategies to teach subject matter content effectively. This question examines the extent to which SNRPDP meets this mandate in terms of the types of training offered by the program, the number of teachers and administrators that participate in SNRPDP activities, and the different ways training is offered.
   Section 2 of this report discusses this evaluation question in detail.

3. What is the quality of SNRPDP Training?
   With this question, the evaluation switches to looking at the formative and summative modes. In providing formative evaluation, activities are assessed as they occur and this

information is used to provide adjustments that will continually improve the quality of the program. Generally, formative modes do not stipulate appreciable program revisions, but rather "fine tuning" to ensure that activity objectives are being met. Summative evaluation looks at all the program elements in synthesis, and at specific milestones, to rate the overall effectiveness of the program. Therefore, in evaluating this question, SNRPDP examines the extent to which the program is providing training that meets or exceeds its goal, as well as other professional development standards.
Section 3 of this report discusses this evaluation question in detail.

4. Are teachers and administrators learning new skills and content to improve instruction?
   Similarly, this question also embodies the formative and summative evaluation modes. SNRPDP provides a wide range of professional development activities and this question looks at the specific impact of these activities on what teachers and administrators are learning, and how their learning is being translated into the classroom.
   Section 4 of this report discusses this evaluation question in detail. This question is also critical to the discussion presented in Section 5, which looks at connections between what teachers and administrators are learning and how they are implementing this new knowledge in the classroom to student achievement gains.

5. Do SNRPD activities result in student achievement gains?
   This question gets at the heart of SNRPDP's goal: increasing student achievement. Answering this question requires appreciable data collection efforts and robust analysis techniques. SNRPDP does both of these, with the details of the plan and analysis included in this report. The information gleaned from this analysis has both formative and summative elements and are critical to deepening student understanding of fundamental concepts and increasing their achievement as measured by state benchmarks.
   Section 5 of this report discusses this evaluation question in detail.

III. Evaluation Results

1. How is the SNRPDP/NELIP Program Organized?

The Southern Nevada Regional Professional Development Program (SNRPDP) represents Clark, Esmeralda, Lincoln, Mineral, and Nye County School Districts. The program provides services to approximately 70% of the state's K-12 classroom teachers, as well as all (100%) of Nevada's administrators. The mission of the Southern Nevada Regional Professional Development Program is to provide high quality professional development, based on Nevada's academic standards that will result in increased student achievement. The Nevada Legislature's foresight to offer professional development through regional programs has allowed all teachers in the state the opportunity to receive professional development. If funding were not allocated through the regional programs, teachers and administrators in smaller districts might not have the funds, or at times the expertise, to provide such training.

The SNRPDP has hired regional trainers by specific content areas and grade clusters. Each content area cluster represents a project responsible for providing training in that subject at specific grade levels. Specifically the SNRPDP has a math team, a science team, an elementary literacy team, and a secondary English-language arts team. SNRPDP also has a team dedicated to on-line/distance/technology education. Furthermore, SNRPDP has team of retired administrators to serve the needs of superintendents, principals, and other school leadership officials. SNRPDP provides services to administrators throughout the entire state. Regional trainers were also hired in the rural districts to serve the needs of outlying areas more readily. However, all trainers, no matter where they are based, are responsible for providing training in all geographic areas of southern Nevada, as well as statewide for certain services (e.g., administrative professional development). Because of the shortage of substitutes, the SNRPDP has hired additional trainers who work in a part-time capacity in place of some full time staff.

The smaller rural school districts within the SNRPDP, received training in greater proportion than would have been indicated by the number of staff in each school district and all trainers fully understand the need to provide assistance to the rural districts whenever asked.

Whereas the training sessions are content specific, regional trainers embed pedagogy and instructional strategies into each professional development activity. In this way, teachers are provided the skills and strategies to meet the needs of all students.

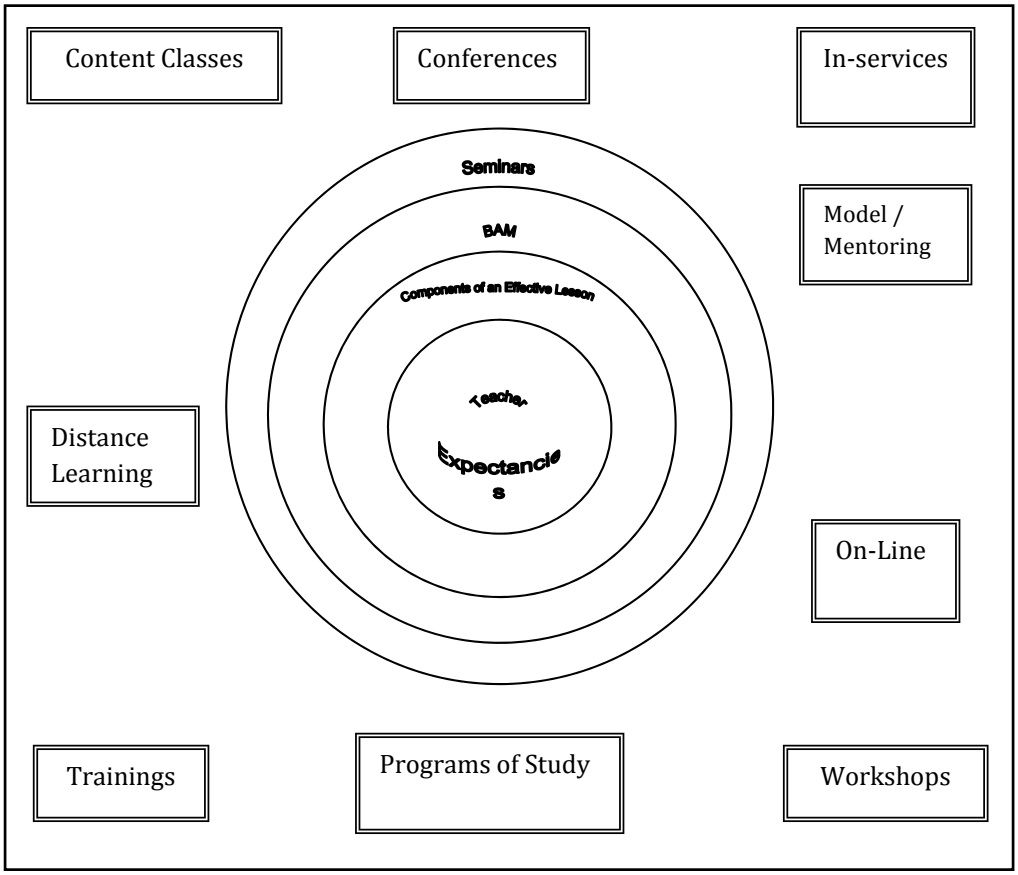
Trainings by Content Area

The distribution of training sessions (e.g., workshops, in service professional development, presentations, and classes) by content area—literacy/English-language arts, mathematics, science, technology and multiple content areas, administration, and NEPF-specific—was as follows:

Literacy, English-Language Arts	**206**
Mathematics	**70**
Science	**56**
Technology & Multiple Content Areas	**81**
Administration	**54**
NEPF-specific Training Sessions	**242**
Total Number	**709**

To maximize the state funding provided by the legislature, the SNRPDP has coordinated activities with each of the local school districts, the University of Nevada, Las Vegas, Clark County Community Foundation, the Clark County Public Education Foundation, Nevada Association of School Superintendents, and Nevada Association of School Administrators.

The SNRPDP continues to change the way professional development is delivered through implementation of the *Backwards Assessment Model* (*BAM*) as the primary vehicle to deliver training. Rather than the ineffective model of a series of one-shot unconnected presentations, *BAM* requires professional development to be an integral and essential part of teachers' work. It requires professional development to be regularly scheduled, on site, ongoing, in the discipline teachers' teach, in content and pedagogy, and include classroom teachers as active participants.



There are two premises of *BAM*; the first is "assessment drives instruction." The second is "teachers make a difference; teachers working together make a greater difference." As an example of this change and the emphasis being placed on academic standards, the majority of schools in the five southern Nevada school districts have adopted versions of the "Professional Development Day Agenda" put forth by the SNRPDP.

In a nutshell, the agenda focuses professional development time on what teachers' teach (state standards), how they teach it, the performance of their students, and the implementation of instructional practices that will result in increased student achievement.

In addition to implementation of the *Backward Assessment Model* (*BAM*) at school sites, the SNRPDP hosts seminars in mathematics, science, reading, and writing. These seminars allow classroom teachers at the same grade or subject level to share their content knowledge, expertise, resources, and successful teaching strategies regionally. Training is also provided in areas requested by classroom teachers. For example, teachers have received training and follow-up training on implementing lab activities, graphing calculators, equation editor, and how to use "linkage" to make students more comfortable in their knowledge, understanding, and application of the mathematical sciences which will lead to increased student achievement.

Proposed Professional Development Day Agenda

I. General meeting – discuss items that site administrators need to address

II. Grade level or subject level meeting

A. Identify the following and discuss using data:

1. The next unit of study.
2. The most difficult unit of study as determined by teacher experience.
3. The unit of study causing students the most difficulty as identified by local, state, or national test data.

B. Identify what students should know, recognize, understand, communicate, and be able to do in the selected unit (Specification Sheet).

C. Identify how long it should take to teach the selected unit (Benchmarks).

D. Using data to identify topics within that selected unit in which students traditionally experience difficulty.

E. Share with each other successful teaching strategies to overcome those difficulties and/or deficiencies.

F. Share content knowledge, resources, and expertise to address student success in the identified unit.

G. Determine how and what to assess on the selected unit to help ensure consistency and fairness between classes of the same grade level or same subject (Test Blueprint).

H. Discuss ways to involve special education or ELL facilitators if specific student populations are not experiencing the same success as the general population.

I. Using data, examine the results of interim tests and teacher made tests to determine strengths and weaknesses of student's understanding of subject matter.

J. Identify students not meeting proficiency on standards and develop a plan to remediate those students.

K. Identify what instructional practices you will change for next year to correct those deficiencies and improve student achievement.

The SNRPDP's *5 Point K-12 Professional Development Plan* is used as the guiding philosophy to support classroom teachers and administrators and increase student achievement. The 5 Point Plan is a common sense approach to address educational concerns coupled with the belief that **what works is work.**

5-Point
K-12 Professional Development Plan

1. **Content**

   It is recognized that student achievement increases when students are enrolled in appropriate coursework, and also, when the course is more rigorous and requires higher order thinking skills.

2. **Teacher Knowledge**

   Addressed in the plan is the recognition of the importance of the role of the classroom teacher. Research has suggested that nothing is more important to students' success than their classroom teachers. Therefore, training in content and pedagogy are offered to teachers in the disciplines they teach. Teachers are also provided with guides and resources that act as blueprints for successful teaching. BAM is the training model adopted in southern Nevada. Embedded in BAM are the *Teacher Expectancies* and the *Components of an Effective Lesson*.

3. **Linkage**

   While linkage is a part of the teacher expectancies, the K-12 plan highlights connecting what students already know from real world experiences or from previous learning to what are currently being taught in the classroom. By seeing the relationships that exist between the classroom and prior, sometimes informal, knowledge, it is expected that students will be more comfortable in their understanding and application of that knowledge.

4. **Mastery**

   Students must be taught and learn to the point of mastery. Understanding and critical thought can only be built on a base of knowledge and fact. The more sophisticated mental operations of analysis, synthesis, and evaluation are impossible without rapid and accurate recall of bodies of specific knowledge. To assist in recall and mastery, two review periods are included in the *Components of an Effective Lesson.* Also stressed is memorization, which simplifies the process of recalling information, and allows its use to be automatic.

5. Interpersonal Relationships

> The plan recognizes the need to build more positive relationships between classroom teachers and their students. Research suggests that if students perceive that their classroom teachers know and care for them, they will work harder for that teacher for no other reason than loyalty. That sense of caring translates to a sense of belonging that encourages students to not only stay in school, but to perform to higher expectations and academic standards.

SNRPDP also uses a limited "trainer of trainers" model, as well as mentoring and modeling lessons for classroom teachers. University classes are offered to classroom teachers and administrators. These courses are specifically designed to have an immediate impact on classroom instruction by focusing on the content and curriculum currently being taught by classroom teachers in their subject or grade level. For example, course offerings include such courses as Primary Writing for Elementary Teachers and Algebra for the Middle School Classroom Teacher. A complete listing of classes and professional development provided by SNRPDP are listed in Section 2.

The SNRPDP publishes and distributes through the Internet and by mail timely lessons and information in literacy, English-language arts, reading, science, and mathematics. "Got Math?" is a newsletter to address major concepts in mathematics that can be linked to previous learning. "Science Dissected," covering current content and innovative instructional strategies, is distributed to middle and high school teachers. The "Literacy Connects" is published and distributed focusing classroom teachers' attention on strategies to improve reading in the content areas. "Kindergarten Chronicles" covers a breadth of information targeted directly at the Kindergarten teacher. "Shop TALK" is a quarterly magazine published and distributed as just one more way to engage teachers and administrators to think more deeply about what they do and how they do their jobs.

The Nevada Legislature created the Nevada Early Literacy Intervention Program (NELIP) in southern Nevada. The purpose of this program includes "training for teachers who teach kindergarten and grades 1, 2, and 3 in methods to teach fundamental reading skills that have been identified in research that follow the National Reading Panel's recommendations." The main components of the program include training in, without limitation: phonological awareness, phonics, vocabulary, fluency, comprehension, motivation, and writing. The ultimate goal of early literacy training is to have all students reading at or above grade level by grade three. This stance reflects the following quote from the National Reading Panel:

> Reading is essential to success in our society. The ability to read is highly valued and important for social and economic advancement. Of course, most children learn to read fairly well. In this report, we are most concerned with the large numbers of children in America whose educational careers are imperiled because they do not read well enough to ensure understanding and to meet the demands of an increasingly competitive economy. Current difficulties in reading largely originate from rising demands for literacy, not from declining

> absolute levels of literacy. In a technological society, the demands for higher literacy are ever increasing, creating more grievous consequences for those who fall short.
>
> *-Preventing Reading Difficulties in Young Children, 1998*

1.1 THE SNRPDP BOARD AND STATEWIDE COUNCIL FOR THE COORDINATION OF THE REGIONAL TRAINING PROGRAMS

The Southern Nevada Regional Professional Development Program's governing board is made up of twelve members. Included is a superintendent or designee from each of the five districts, five classroom teachers, a university representative, and the SNRPDP Director.

The chairperson of the governing board and the director schedule the meetings and set the agenda. It is the board's responsibility to approve the plan, direction, and budget of the program. The board generally meets three to four times per year during the months of September/October, January/February, May, and August (see Appendix C for a sample Board Meeting agenda). The governing board has complied with all the requirements of Sec. 6 of Senate Bill 210. The SNRPDP is steadily progressing toward meeting the goals of the ongoing *5-Year Plan* approved by the SNRPDP governing board.

The Statewide Council for the Coordination (SCC) of the Regional Training Programs, consists of eight members, per Nevada Revised Statutes § 391.516 (2011). The SCC includes one member of the governing body of each regional training program, one representative of the Nevada State Education Association, the Director of the Office of Parental Involvement and Family Engagement, and each coordinator hired by the governing body of each regional training program. The purpose of the council is to (a) adopt uniform standards for use by the governing body of each regional training program in the review and approval by the governing body of the training to be provided by the regional training program, (b) coordinate the dissemination of information to school districts, administrators and teachers concerning the training, programs and services provided by the regional training programs, (c) disseminate information to the regional training programs concerning innovative and effective methods to provide professional development, (d) conduct long-range planning concerning the professional development needs of teachers and administrators employed in this state, and (e) adopt uniform procedures for use by the governing body of each regional training program to report the evaluation.

1.2 Conducting Needs Assessments

Needs assessments in the SNRPDP are ongoing and have been done formally and informally as well as internally and externally. Informal needs assessments were done by interviews, requests made on evaluations for more services, and by analyzing school district test scores in all subject areas. Teachers are also requested to fill out a survey on the use of professional development time at the end of each year; the results of that survey are then compared to what educational research calls best practices. Professional development is provided to teachers and administrators based on those results. Additionally, each trainer assumes responsibility for assessing the needs in specific areas. This is accomplished through surveys, school contacts, and test data analysis.

There are oftentimes conflicts in needs assessments. When teachers are surveyed using cold calls, emails, and the Internet, they often report very few, if any needs. Teachers who attend trainings provided by the SNRPDP often request more training of the type they just received and are more specific about what types of training will best help them increase student achievement.

This contradiction leads to the conclusion that a good number of teachers "don't know what they don't know," and therefore, cannot ask for assistance because they think everything is all right. However, after they attend training, they can clearly see the benefit to themselves and their students.

The SNRPDP also examines test data provided by the local school districts and uses that information to provide training in areas of deficiency. Furthermore, the results of our in-depth evaluation yields critical data that point to areas that require emphasis and attention.

1.3 Long-range (5-year) Planning and Review

The SNRPDP Governing Board reviewed the previous 5-year plan, made some general observations, suggestions, and recommendations to the subcommittee of the board that developed the five-year plan with the director. The governing board reviews the activity evaluations as well as testimonials from their own district employees to determine the value and effectiveness of the SNRPDP trainings attended. At the last meeting of the school year, the governing board reviews the five-year plan to determine if the SNRPDP is following the plan and to what extent goals are being reached. At this same meeting, the state's professional development standards are also assessed with respect to the training provided for southern Nevada classroom teachers and administrators. The following represents the new 5-year plan.

5 – Year Directional Blueprint to Increase Student Achievement

Two Standards

1. Common sense
2. My kid

One goal

Increase student achievement

Year One: 2010-2011

- Continue implementation of BAM, Teacher Expectancies, and Components of an Effective Lesson.
- Continue implementation of the 5-Point Professional Development Plan.
- Continue classroom observations by invitation for the purposes of coaching within various content areas.
- Provide assistance to schools in creating a plan for *Remediation along the Way.*
- Examine the performance of students at the end of 6th grade and algebra based on the results of the previous end-of-year testing.
- Offer a free summer class to prepare teachers to support students taking algebra in the fall.
- Offer courses to teachers to gain expertise in fields other than their primary teaching assignment by offering introductory classes in such areas as testing & assessment, special populations, reading, school improvement planning, classroom discipline, etc.
- Continue to increase the number of on-line and videotape classes.
- Continue the distribution of publications to address concerns.
- Revise the success of the 5-Year Plan and K-12 professional Development Plan based on level of teacher satisfaction, increased level of teacher knowledge, actual implementation of new strategies and increased student achievement through the following: tracer studies, evaluations, anecdotal records from observations, action research, and local, state, and national tests.
- Self analyze alignment with the Professional Development Standards for each course, class, and training offered.
- Schedule classes, workshops, and in-services to work with school administrators on school improvement plans and accreditation (Other topics: instructional strategies, using data for decision making, and leadership)
- Provide technical assistance to schools on school improvement efforts.
- Provide assistance to needs improvement schools and schools on the bubble in all content areas.
- Continue the implementation of classes in how to teach reading for kindergarten and grades one through three.
- Provide follow-up to reading classes to help participants fully implement the six components of reading in their classes.
- Continue to offer extension classes in areas of the six components
- Continue to offer credit offerings in mathematics, science, and social studies.

- Develop and implement teacher certificate programs for high needs content areas as established by the state.
- Continue to build partnerships with institutes of higher education and other grant recipients.
- Strengthen statewide offerings of the RPDPs through mutual assistance.
- Expand and enhance collaborative efforts with programs that have the same mission as the RPDPs locally and statewide.
- Continue to offer and broaden summer institute programs within our region and statewide.
- Seek outside grants that match the goals of the SNRPDP.

Year Two: 2011-2012

- Continue implementation of BAM, Teacher Expectancies, and Components of an Effective Lesson.
- Continue implementation of the 5-Point Professional Development Plan.
- Continue classroom observations by invitation for the purposes of coaching within various content areas
- Provide assistance to schools in creating a plan for *Remediating Along the Way.*
- Examine the performance of students at the end of 6th grade and algebra based on the results of the previous end-of-year testing.
- Offer a free summer class to prepare teachers to support students taking algebra in the fall.
- Continue to offer courses to teachers to gain expertise in fields other than their primary teaching assignment by offering introductory classes in such areas as testing & assessment, special populations, reading, school improvement planning, classroom discipline, etc.
- Continue to increase the number of on-line and videotape classes.
- Continue the distribution of publications to address concerns.
- Revise the success of the 5-Year Plan and K-12 professional Development Plan based on level of teacher satisfaction, increased level of teacher knowledge, actual implementation of new strategies and increased student achievement through the following: tracer studies, evaluations, anecdotal records from observations, action research, and local, state, and national tests.
- Self analyze our alignment with the Professional Development Standards for each course, class, and training offered.
- Schedule classes, workshops, and in-services to work with school administrators on school improvement plans and accreditation (Other topics: instructional strategies, using data for decision making, and leadership)
- Provide technical assistance to school on school improvement efforts.
- Provide assistance to needs improvement schools and schools on the bubble in all content areas.
- Continue the implementation of classes in how to teach reading for kindergarten and grades one through three.
- Provide follow-up to reading classes to help participants fully implement the six components of reading in their classes.
- Continue to offer extension classes in areas of the six components.
- Continue to offer credit offering in mathematics, science, and social studies.
- Develop and implement teacher certificate programs for high needs content areas as established by the state

- Continue to build partnerships with institutes of higher education and other grant recipients.
- Strengthen statewide offerings of the RPDPs through mutual assistance.
- Expand and enhance collaborative efforts with programs that have the same mission as the RPDPs locally and statewide.
- Continue to offer and broaden summer institute programs within our region and statewide.
- Seek outside grants that match the goals of the SNRPDP.
- Become familiar with action research as a strategy to later assist schools with implementation for further school improvement efforts.
- Become familiar with the change process in an effort to support schools as they go through SAGE/school improvement process.

Year Three: 2012–2013

- Continue implementation of BAM, Teacher Expectancies, and Components of an Effective Lesson.
- Continue implementation of the 5-Point Professional Development Plan.
- Continue classroom observations by invitation for the purposes of coaching within various content areas.
- Provide assistance to schools in creating a plan for *Remediating Along the Way.*
- Examine the performance of students at the end of 6th grade and algebra based on the results of the previous end-of-year testing.
- Offer a free summer class to prepare teachers to support students taking algebra in the fall.
- Continue to offer courses to teachers to gain expertise in fields other than their primary teaching assignment by offering introductory classes in such areas as testing & assessment, special populations, reading, school improvement planning, classroom discipline, etc.
- Continue to increase the number of on-line and videotape classes.
- Continue the distribution of publications to address concerns.
- Revisit the success of the 5-Year Plan and K-12 professional Development Plan based on level of teacher satisfaction, increased level of teacher knowledge, actual implementation of new strategies and increased student achievement through the following: tracer studies, evaluations, anecdotal records from observations, action research, and local, state, and national tests.
- Analyze alignment with the Professional Development Standards for each course, class, and training offered.
- Continue providing classes, workshops, and in-services to work with school administrators on school improvement plans and accreditation (Other topics: instructional strategies, using data for decision making, and leadership)
- Expand opportunities for administrators to collaborate through books study courses locally and statewide
- Provide technical assistance to schools in the area of school improvement.
- Provide assistance to needs improvement schools and schools on the bubble in all content areas.
- Continue the implementation of classes in how to teach reading for kindergarten and grades one through three.
- Provide follow-up to reading classes to help participants fully implement the six components of reading in their classes.

- Continue to offer extension classes in areas of the six components.
- Continue to offer credit offering in mathematics, science, and social studies.
- Develop and implement teacher certificate programs for other content areas assisting efforts in meeting the requirements of Highly Qualified Teacher Standards
- Continue to build partnerships with institutes of higher education and other grant recipients
- Strengthen statewide offerings of the RPDPs through mutual assistance
- Expand and enhance collaborative efforts with programs that have the same mission as the RPDPs locally and statewide.
- Continue to offer and broaden summer institute programs within our region and statewide.
- Seek outside grants that match the goals of the SNRPDP.
- Assist schools with the implementation of action research as a strategy for further school improvement efforts.
- Offer courses in root-cause analysis to assist school teams.
- Assist schools with the change process as they go through the SAGE/school improvement process.

Year Four: 2013–2014

- Continue implementation of BAM, Teacher Expectancies, and Components of an Effective Lesson.
- Implement support to administrators and teachers for the Nevada Educator Performance Framework.
- Continue implementation of the 5-Point Professional Development Plan.
- Continue classroom observations by invitation for the purposes of coaching within various content areas.
- Provide assistance to schools in creating a plan for *Remediating Along the Way*.
- Examine the performance of students at the end of 6th grade and algebra based on the results of the previous end-of-year testing.
- Offer a free summer class to prepare teachers to support students taking algebra in the fall.
- Continue to offer courses to teachers to gain expertise in fields other than their primary teaching assignment by offering introductory classes in such areas as testing & assessment, special populations, reading, school improvement planning, classroom discipline, etc.
- Continue to increase the number of on-line and videotape classes.
- Continue the distribution of publications to address concerns.
- Revisit the success of the 5-Year Plan and K-12 professional Development Plan based on level of teacher satisfaction, increased level of teacher knowledge, actual implementation of new strategies and increased student achievement through the following: tracer studies, evaluations, anecdotal records from observations, action research, and local, state, and national tests.
- Self analyze our alignment with the Professional Development Standards for each course, class, and training offered.
- Continue providing classes, workshops, and in-services to work with school administrators on school improvement plans and accreditation (Other topics: instructional strategies, using data for decision-making, and leadership).
- Expand opportunities for administrators to collaborate through books study courses locally and statewide.

- Provide technical assistance to school on school improvement efforts.
- Provide assistance to needs improvement schools and schools on the bubble in all content areas.
- Continue the implementation of classes in how to teach reading for kindergarten and grades one through three.
- Provide follow-up to reading classes to help participants fully implement the six components of reading in their classes.
- Continue to offer extension classes in areas of the six components identified as weak by testing or by teachers.
- Continue to offer credit offering in mathematics, science, and social studies.
- Develop and implement teacher certificate programs for other content areas assisting efforts in meeting the requirements of Highly Qualified Teacher Standards.
- Continue to build partnerships with institutes of higher education and other grant recipients.
- Strengthen statewide offerings of the RPDPs through mutual assistance.
- Expand and enhance collaborative efforts with programs that have the same mission as the RPDPs locally and statewide.
- Continue to offer and broaden summer institute programs within our region and statewide.
- Seek outside grants that match the goals of the SNRPDP.
- Assist schools with the implementation of action research as a strategy for further school improvement efforts.
- Offer courses in root-cause analysis to assist school teams.
- Assisting schools with the change process as they go through the SAGE/school improvement process

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- Continue implementation of BAM, Teacher Expectancies, Components of an Effective Lesson, Organizing Student Learning, and Nevada Educator Performance Framework.
- Support and develop strategies for increasing parental engagement.
- Continue implementation of the 5-Point Professional Development Plan.
- Continue classroom observations by invitation for the purposes of coaching within various content areas.
- Continue to offer courses to teachers to gain expertise in fields other than their primary teaching assignment by offering introductory classes in such areas as testing & assessment, special populations, reading, school improvement planning, classroom discipline, etc.
- Continue to increase the number of on-line and videotape classes.
- Continue the distribution of publications to address concerns.
- Revisit the success of the 5-Year Plan and K-12 professional Development Plan based on level of teacher satisfaction, increased level of teacher knowledge, actual implementation of new strategies and increased student achievement through the following: tracer studies, evaluations, anecdotal records from observations, action research, and local, state, and national tests.
- Self analyze our alignment with the Professional Development Standards for each course, class, and training offered.

- Continue providing classes, workshops, and in-services to work with school administrators on school improvement plans and accreditation (Other topics: instructional strategies, using data for decision-making, and leadership).
- Expand opportunities for administrators to collaborate through books study courses locally and statewide.
- Provide technical assistance to school on school improvement efforts.
- Provide assistance to needs improvement schools and schools on the bubble in all content areas.
- Continue the implementation of classes in how to teach reading for kindergarten and elementary school teachers.
- Provide follow-up to reading classes to help participants fully implement the six components of reading in their classrooms.
- Continue to offer credit classes in mathematics, science, and social studies.
- Continue to build partnerships with institutes of higher education and other grant recipients.
- Strengthen statewide offerings of the RPDPs through mutual assistance.
- Continue to offer and broaden summer institute programs within our region and statewide.
- Seek outside grants that match the goals of the SNRPDP.
- Continue work with the MSP grant and cadre to support teachers in the area of mathematics and science.

1.4 Effectiveness of Regional Structure, Including Perspective of Rural Districts

The SNRPDP's structure ensures smaller school districts receive the same or similar services available in the larger school districts, depending upon need. The director works for the board, not for an individual school district. The philosophy of the SNRPDP is to fulfill almost any request of the smaller school districts as well as provide services at their own school sites. The superintendents from Esmeralda, Lincoln, Mineral, and Nye County School Districts have been very positive about the support they receive from the program. (Likewise, the superintendent from Clark County School District has also been supportive of services provided by SNRPDP.) If funding for professional development were not made through the RPDPs, teachers and administrators in smaller school districts probably would not have the funds or, at times, the expertise to provide the training they are currently receiving. In 2013-2014, SNRPDP conducted summer institutes in rural county locations, at no cost to the participants. Over fifty rural teachers participated in this professional development opportunity.

Regional trainers provide training for teachers and administrators in the five counties. However, the SNRPDP has hired trainers who live and provide services in the smaller school districts. Whereas, their primary responsibility lies within that geographic area, these trainers also provide training in the Las Vegas area just as trainers in Las Vegas provide training in the rural areas of the region.

There is a regularly scheduled regional trainer meeting once per month to discuss issues, needs, cooperative training, direction, future goals, and roles of the SNRPDP.

1.5 Efficient Use of NELIP Funds and the Distribution of PD Funds by District

To ensure students are reading at the earliest possible grade level, one regional trainer was assigned to provide professional development specifically for kindergarten teachers. The reason for this allocation was to establish an expectation that students who are ready to learn how to read are taught to read at the earliest possible grade level. Two additional literacy trainers worked with schools in need of improvement and in the area of writing. This infusion of writing stems from the premise that writing is the reciprocal process of reading and therefore will directly impact the development of reading. The trainers offered all classifications of professional development - presentations, in-services, workshops, study groups, mentoring, classes, seminars, conferences, distance education, on-line, etc. Based on agreements with universities, courses were offered at reduced rates to participants in the reading program, which in turn reduces the rates of reimbursement by the SNRPDP.

1.6 SNRPDP Staffing Pattern and Roles

The staffing pattern for elementary literacy trainers was described in Section 1.5. In addition to these trainers, the math department has five full-time trainers, science has three full-time trainers, secondary English-Language Arts had two full-time trainers, and technology/online/distance education had two full-time trainers. SNRPDP also had nine full- and part-time administrative trainers that provided services statewide. For the rural counties, SNRPDP had one data and instructional strategist.

The SNRPDP employed over 20 part-time trainers who offered coursework and in service professional development in all subject areas. That number varied, depending on interest, time of year, and most importantly need. Because of the size of the southern region, both geographically and by population, it is not possible to offer professional development by individual school; therefore, most of the professional development is offered regionally so that classroom teachers and administrators can readily avail themselves of the myriad of services offered.

1.7 SNRPDP TRAINER QUALIFICATIONS

Summary of SNRPDP Trainer Qualifications

Trainer	Total Number of Years in Education	Number of Years as a Teacher and/or Administrator	Number of Years Training Teachers and Administrators	Masters	Doctorate	Special Certifications	Number of Graduate Credits in Literacy Courses
Cheryl Barnson	40	31 (includes counseling)	9	Guidance & Counseling		Secondary Mathematics, Earth Science, Counselor	
Shan Cannon	15	4	11	Curriculum & Instruction		Reading	25
Kris Carroll	13	6	7	Curriculum & Instruction, Secondary Science		Physical Science, Life Science, General Science	
Stacy Cohen	10	9	1	Science in Education		General K-8	12
Kathy Dees	20	7	13	Curriculum & Instruction: Math Focus		Mathematics	
Sue DeFrancesco	38	33	5	Professional Development Educational Leadership	Educational Leadership	English, Administration	
Maria Dufek	32	16	16	Elementary Education: Special Education Emphasis		Elementary Education, TESOL, Special Education K-12	10
Bill Hanlon	39	20	19	Administration		Mathematics	
Mendy Henry	15	9	6	Curriculum & Instruction, TESOL emphasis		Reading, TESOL	16
Kathryn Kinnaird	38	27	11	Curriculum & Instruction		Reading	32
Glenn Krieger	20	11	9	Principal Administration		Technology	
Saralyn Lasley	22	10	12	Secondary Curriculum: Literacy Focus		Spanish English	54
Carol Long	37	23	14	Educational Systems		Mathematics	

Summary of SNRPDP Trainer Qualifications

Trainer	Total Number of Years in Education	Number of Years as a Teacher and/or Administrator	Number of Years Training Teachers and Administrators	Masters	Doctorate	Special Certifications	Number of Graduate Credits in Literacy Courses
Robyn Markovic	18	7	11	Curriculum & Instruction: Literacy Focus		Early Childhood, Reading	72
Frank Mathews	35	16	19	Education: Mathematics & Science		Technology, Mathematics: Calculus, Physical Science	
William "Rob" Roberts	28	26	2	Education: Counseling & Guidance	Education: Organizational Leadership	Counseling, JROTC Administration	
Bret Sibley	19	13	6	Educational Leadership		Physical Science	
Margaret Smith	24	6	18	Curriculum & Instruction: Reading & Language Arts	Literacy, Teacher Education	Reading, English, Early Childhood, Administration	84
Thomasina Rose	10	9	1	Administrative Leadership		English, Speech, Drama	
Pam Salazar	39	30	9	Curriculum & Instruction, Physics	Educational Leadership	Physics, Mathematics, Computer Science, Administration	
Karl Spendlove	42	30	12	Physical Science, Ed.S. Admin		Mathematics, Calculus, Computers, Physical Science	
Karen Stanley	30	29	1	Administration & Supervision		Secondary English	
Sylvia Tegano	38	29	9	Administration in Education	Educational Leadership	Teaching & Administration	

The SNRPDP Director trains the regional trainers in the *Backward Assessment Model*. The regional trainers also receive training during the course of the year to increase their knowledge base and hone their delivery skills.

1.8 COLLABORATION AMONG RPDPS AND WITH OTHER PROGRAMS

The SNRPDP has forged partnerships with UNLV, Clark County Public Education Foundation, Nevada Association of School Superintendents, Nevada Association of School Administrators, CCSD's Curriculum & Professional Development Division, the National Association of State Boards of Education, and the SNRPDP has developed a mutual aid and assistance program among the three regional programs.

The collaboration between CCSD and SNRPDP allowed for development of programs that reinforce each other without duplication. This working relationship often results in a shared professional development activity that meets the needs of classroom teachers and administrators as well as fulfilling the requirements of state statutes or of a grant.

Our university collaboration allows the SNRPDP to develop its own coursework based on needs assessments and test scores within the region; these courses are then offered through the universities and are given graduate level status. All sixteen credits offered through the Middle School Certificate Programs in mathematics, science, and technology are accepted towards master's degrees at UNLV, with UNLV offering SNRPDP participants a reduced rate for tuition.

SNRPDP has continued its collaboration with the Clark County Education Association (CCEA) and CCSD as a provider for eighteen-credit programs in specific content areas. These programs are subject specific and designed to enhance teacher's knowledge in their specific teaching areas.

SNRPDP programs include Elementary Literacy, Elementary Generalist, Technology, High School Math, Middle School Math, High School Science, and Middle School Science.

2. What is the Nature and Extent of SNRPDP/NELIP Training?

The professional development offered through the SNRPDP is based on both educational research and common sense approaches to teaching. Professional development should be regularly scheduled, on site, ongoing, in the discipline teachers' teach, in content, pedagogy, and assessment, with teachers as active participants. The SNRPDP has two standards, the *Common Sense* and the *My Kid* standard. In addition to citing research, we appeal to teachers' common sense and experiences so they more readily accept and try to implement what is being presented to them. The *My Kid* standard simply asks teachers to treat the students in their classrooms the same way they would like to have their own sons and daughters treated by other classroom teachers.

Well over 90% of the professional development offered through the SNRPDP is based on the content teachers teach at specific grade clusters for specific subjects. Embedded in the training is pedagogy (Teacher Expectancies and Components of an Effective Lesson), instructional practices to deal with special populations, and examining assessment including discussing how instruction and assessment are currently delivered.

It is expected that the professional development will have both an immediate and long-term impact on either content knowledge and/or instructional practices of classroom teachers and site administrators.

Student-teacher relationships are an important component of the SNRPDP. Teachers are encouraged to treat the students in their classroom the same way they would like to have their own children treated by other teachers.

With so many schools located in southern Nevada and the large geographic area in the region, it is impossible to provide individual training for each school—SNRPDP must operate regionally to provide services to the maximum extent possible.

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Elementary Literacy			
Being a Writer	3	This class will aid teachers in the development and implementation of writing workshop within their classrooms.	K-5
CCSS Narrative Writing	1	Discusses the shifts in the writing standards and how these shifts affect instruction.	K-5
CCSS Opinion Writing	1	Focuses on implementation and assessment of opinion writing along with integration of the speaking and listening standards.	K-5
CCSS Informational Writing	1	Discusses the shifts in the writing standards and how these shifts affect instruction.	K-5
Literacy Centers	1	An exploration of the preparation, management and value of literacy centers in emergent classrooms.	K-2
Literacy Stations	1	An exploration of the preparation, management and value of literacy stations in intermediate classrooms.	3-5
Nonfiction in Focus	1	Instruction in nonfiction reading and writing within a comprehensive framework (balanced literacy).	K-5
Reading Instruction in the CCSS	1	Provides essential knowledge about the Nevada Academic Content Standards for Reading in grades K-5, and the literacy practices needed to achieve them.	K-5
Literacy Conference	1	Introduces and discusses effective instructional practices within the literacy framework, including whole group instruction, small group differentiated instruction, reading and analysis of complex text, and writing.	K-5
Secondary Literacy			
Understanding the CCSS – Language 6-8	3	This three-credit course is designed to provide educators an opportunity to gain a deeper understanding of classroom instructional strategies with a focus on word study, vocabulary and word relationships.	6 -12

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Literacy in the Content Areas (online)	1	This is an online class that focuses on expository reading and writing, vocabulary, note-taking, and other literacy learning strategies.	4-12
Effective Strategies to Teach Vocabulary (online)	1	This is an online class that focuses on using the findings of vocabulary research to design and implement effective, authentic approaches to vocabulary instruction, usage, and assessment.	4-12
Teacher Action Research (online)	3	This is an online class that guides educators through the teacher action research process. Learners will examine their own instructional practices and/or student social or academic behavior to develop and implement a research project.	4-12
Understanding the CCSS – Reading 9-12	3	This course focuses on text complexity and Lexile levels in the high school classroom. The class also focuses on establishing appropriate text for classroom instruction and how to best improve cross-curricular reading skills.	9-12
Understanding the CCSS – Writing 9-12	3	Focuses on developing the ELA 9-12 CCSS for writing using the three text types- narrative, argumentative, and expository/informational.	9-12
Brain Compatible Learning Strategies	2	Focuses on using the findings of current brain research to design and implement cross-curricular teaching strategies.	K-12
Alternative Assessment (online)	1	This class focuses on different assessment techniques based on Gardner's Theories of Multiple Intelligences. This class allows teachers of all content areas to increase the effectiveness of formative and summative assessment to increase student achievement.	4-12
Internet Literacy (online)	1	This class teaches methods for using the Internet as a research tool for learning and teaching.	4-12

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Understanding the CCSS-Integrating Technology in the ELA Classroom	1	This course focuses on integrating Common Core State Literacy Standards and technology with a focus on video – streaming, blogging, wikis and web quests in a 21st century classroom.	4-12
Reading Comprehension (online)	1	Focuses on addressing current research and best practices in the instruction of reading comprehension	4-12
Understanding the CCSS-NF Reading and Writing	3	This three-credit class focuses on blending the CCSS ELA Standards and building a workshop environment with the four modes of writing.	4-12
Secondary Literacy Specialist/Learning Strategist Workshops	N/A	Quarterly workshops focusing on school-wide change, research, and data collection, new teacher induction, SIP, and related school-wide initiatives.	6-12
Just Voices Reading and Writing Workshop	2	This course focuses on using reading, writing, and inquiry to explore issues related to critical literacy and the teaching of social justice.	6-12
Just Voices: Writers-in-the-Schools	1	Focuses on the literary study of the works of the three "Just Voices" visiting writers-authors will change each semester. This course is offered only during the spring semester.	9-12
Literacy in the Content Areas—Math only	1	This course focuses on reading and writing, vocabulary, note taking, and other literacy learning strategies specific to the math classroom. This is part of the Math Certificate Program.	K-12
NV Formative Assessment Tools	1	This course focuses on preparing teachers to use the Nevada Formative Writing Tools. Participants will gain an in-depth understanding of the Nevada CCSS and best practices in writing. Participants will work collaboratively to develop lessons that shift writing instruction to better meet the demands of the Nevada Common Core State Standards and better prepare students for the upcoming Smarter Balanced assessments.	3-8

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Reading Strategies to Reach all Learners	1	This course focuses on the reading strand of the ELA 6-12 CCSS, both literature and informational text. Teachers will learn how to establish a reading culture in their classroom, teach and support a range of reading tools and techniques, evaluate student learning, and evaluate instructional effectiveness. The objective of the course is for teachers to develop students who read a variety of texts for different purposes, use various reading strategies, develop their own reading capacity, and evaluate and monitor their understanding, performance, and progress.	6-12
Understanding the CCSS: Writing and Language	1	This course focuses on the writing and language strands of the ELA 6-12 CCSS, argumentative, informative/expository, and narrative writing. Teachers will learn how to establish a writing community in the classroom, teach and support writing, evaluate student learning, and evaluate instructional effectiveness. The objective of the course is for teachers to develop students who write in multiple genres for different purposes, use various writing strategies, develop their own writing capacity, and evaluate and monitor their own writing and the writing of others. Through use of model lessons and literacy activities, participants will learn how to create writing lessons/units that integrate reading, language, and speaking & listening.	6-12

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
SNWP Institute: Transforming the Teaching of Writing	3	This class is designed to allow participants to learn about and practice the teaching of writing through discussion, modeling, mentoring and coaching. Participants will have the opportunity to participate in a grade level writing class at the SNWP Summer Writing Camp. Participants will be individually mentored as they observe, discuss, practice and reflect on effective writing practices.	K - 12
Science			
Science & Literacy K-2 / Science & Literacy 3-5	1	Both these classes model how science investigations serve as a core for the development of appropriate scientific vocabulary, integration of informational texts, and nonfiction writing for elementary children.	K-2 3-5
Introduction to Science Notebooks K-5	1	This class is designed as an introductory class for teachers who would like to begin incorporating science notebooks in their classrooms.	K-5
Science and Children's Literature for K-8 Teachers	3	This class is designed to integrate science and literacy; both reading and writing by evaluating children's literature for science content. The Nevada State Science Standards provide the framework to create integrated lessons combining children's literature and major science concepts.	K-8
K-2 Science / 3-5 Science	3	Both of these three credit classes give participants the opportunities to engage in activities that focus on science content knowledge (Nevada State Standards) by exploring fundamental scientific phenomena through inquiry, explore new methods and tools to facilitate inquiry-based learning, engage in reflective practice by sharing ideas and interacting professionally with a network of classroom teachers, and explore the use of assessment to facilitate learning in the classroom.	K-2 3-5

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Grade level specific content trainings		These trainings meld appropriate grade-level content and pedagogy, examine a variety of assessments that meet the needs of science teaching, correlate science with reading, writing, and vocabulary, and model the effective use of science notebooks in the elementary classroom.	K-5
MSSCP Laboratory and Process Skills	1	Using scientific inquiry, prepare lab reports, using science equipment, observation vs. inference, safety in the lab, managing materials	K-8
MSSCP Life Science for MS Teachers (Sem 1)	3	Foundations of science, living things, cell theory, ecology, animals, and taxonomy.	K-8
MSSCP Life Science for MS Teachers (Sem 2)	3	Cells, genetics, classification, environment, and evolution.	K-8
MSSCP Earth Science for Middle School Teachers (Sem 1)	3	Geology, hydrology, and natural resources.	K-8
MSSCP Earth Science for MS Teachers (Sem 2)	3	Hydrology, atmosphere, meteorology, and astronomy.	K-8
MSSCP Physical Science for MS Teachers (Sem 1)	3	Measurement, scientific inquiry, chemical and physical properties of matter, atoms, elements and compounds, periodic table and energy.	K-8
MSSCP Physical Science for MS Teachers (Sem 2)	3	Atomic structure, matter, energy, waves – light and sound.	K-8
Secondary Math and Science Workshops	1-4	Content area workshops that focus on key concepts in either mathematics or science on the middle or high school level.	6-12
Technology in the Science Lab: Part I	1	A variety of handheld data collection devices, along with sensors and probes are used to perform a range of traditional science experiments in Physics, Chemistry, Earth Science, and Biology, using current technology.	K-12

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Technology in the Science Lab: Part II	1	A wide range of data collection devices are used, along with online simulations to conduct science experiments in Physics, Chemistry, Earth Science and Biology. Emphasis is placed on technology-based data analysis and reporting.	K-12
HSSCP AP Biology Mini Course 2	1	In-depth examination of the College Board Advanced Placement Biology curriculum from both content and pedagogical perspectives.	7-12
HSSCP AP Chemistry Mini Course 2	1	In-depth examination of the College Board Advanced Placement Chemistry curriculum from both content and pedagogical perspectives.	7-12
HSSCP AP Physics Mini Course 2	1	In-depth examination of the College Board Advanced Placement Physics curriculum from both content and pedagogical perspectives.	7-12
HSSCP Biology I for HS Teachers (Sem 1)	3	Fundamentals of biology and the nature of science, chemistry of life, cell biology, and cell homeostasis.	7-12
HSSCP Biology I for HS Teachers (Sem 2)	3	Fundamentals of biology, molecular genetics/DNA, cell division, genetics, origins of life and evolution, taxonomy and phylogeny.	7-12
HSSCP Chemistry I for HS Teachers (Sem 1)	3	Mathematics of chemistry, safety, laboratory procedures, elements-compounds-mixtures, atomic theory and structure, structure and organization of the periodic table, mole concept, chemical bonding, nomenclature, and chemical equations.	7-12
HSSCP Chemistry I for HS Teachers (Sem 2)	3	Stoichiometry, gases, liquids and solids, solutions, acids, bases, and salts, thermodynamics, kinetics, equilibrium, electrochemistry, organic chemistry, nuclear chemistry, chemistry and the environment.	7-12
HSSCP Earth Science for HS Teachers (Sem 1)	3	Matter and energy, earth chemistry, earth history, earth resources and environment, weathering and soil, and erosion and depositional systems.	7-12

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
HSSCP Earth Science for HS Teachers (Sem 2)	3	Topography, structural forces, astronomy, meteorology, and oceanography.	7-12
HSSCP Physics I for HS Teachers (Sem 1)	3	Laboratory procedures, mathematics applications in physics, safety, kinematics, dynamics, and energy.	7-12
HSSCP Physics I for HS Teachers (Sem 2)	3	Thermodynamics, waves, electricity, and magnetism.	7-12
HSSCP Literacy and Assessment	2	Integrate the literacy practices of reading and writing within the science content area. Both formative and summative assessments are explored to help guide instruction and measure student achievement.	7-12
HSSCP Laboratory Safety and Science Process	1	This course addresses the Nevada Science Scientific Inquiry 9-12 Standards, as well as the skills, safety concerns, and processes for organizing and maintaining an effective and safe laboratory environment and for teaching students to collect, record, and evaluate data obtained in laboratory investigations.	7-12
Constructed Response Preparation for Criterion Reference Tests		This training is designed to prepare teachers to understand and incorporate constructed response and free response instruction and assessment techniques.	6-8
Test Taking Strategies for High Stakes Tests		Training in test-taking strategies provides a model for teachers and students to learn to develop appropriate problem solving skills for grade-level specific objectives and constructed response items on the CRT.	6-8
Nevada High School Proficiency		Many schools conduct on-site Math Proficiency Camps for non-proficient students prior to each NHSPE. These sessions provide training, materials, and organizational assistance for math teachers to prepare to conduct the math camps.	10-12

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
SBAC (Smarter Balanced Assessment Consortium)		Nevada is a member of the SBAC state-led consortium. These sessions reviewed the released sample assessment items that go beyond the questions teachers are familiar with on the CRT and NHSPE. Extended-response, technology-enhanced items and performance tasks were included.	6-12
Science and the Nevada Educator Performance Framework (NEPF)		Three-phased science professional development were created and deployed in both online and face-to-face environments to support all educators throughout Nevada. These modules support professionals as they progress from awareness, through implementation, and into implementation.	K-12
Math			
Variable Credit Workshops	1	These series of variable credit workshops focus on the Number Sense; Problem Solving/Data Analysis; Geometry/Measurement; and Algebraic Thinking , Probability, Math & Lit, and Mental Math. Workshops are: (1) Focused on specific topics at various grade levels, (2) Open to teachers at all grade levels, (3) Three hours in length—after school from 4:00 p.m. to 7:00 p.m., (4) Repeated on several different days and in various locations across the district, (5) Looking at content knowledge and immediately useable strategies.	K-2

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Developing Concepts of Multiplication and Division, Mental Math and Algorithms	1	How can we support students in developing understanding of addition and subtraction? What tools and models are effective for implementing the NACS (CCSS)? This class will provide participants materials and strategies to effectively teach concepts and skills for addition and subtraction. Expectations will include using class materials to teach lessons, reflect on practice, and assess student understanding. Are changes to math instruction within the new Nevada Academic Content Standards (CCSS) leaving you wondering how to teach multiplication and division? Then this class is the place for you. Come and learn about how and why we need to teach multiple strategies to students. You will leave with a solid foundation that you can use within any core program.	4-5
Understanding Numbers: Addition and Subtraction Stations: Numbers Operations and Algebraic Thinking	1	How can we support students in developing understanding of place value? This class will use the CCSS Progressions for Number and Operations in Base Ten and Mathematical Practices to provide effective strategies for teaching the concepts and skills of addition, subtraction, multiplication, and division. Expectations will include using class materials to reflect on practice, develop lessons, and assess student understanding.	K-3
Grade Specific Mathematics Strand Exploration, Place Value Stations	1	How can we support students in developing understanding of place value concepts? What tools and models are effective for CCSS mastery? This class will provide participants materials and strategies to effectively teach concepts and skills for place value. Expectations will include using class materials to teach lessons, reflecting on practice and assessing student understanding.	K-5

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Developing Fraction Concepts: Fractions, Decimals, and Percents	1	How can we support students in NACS (CCSS) Number and Operations-Fractions Domain? This class will examine the use of multiple models to understand fractions and strategies for teaching operations with fractions. Activities will be based on a progression through the three stages of learning-concrete, pictorial, and abstract- and focus on students making sense of math.	3-5
Mathematics Strand Exploration- Grade Specific	1	This one-credit course provides a comprehensive study of major topics from the CCSS. Concepts include: How to effectively implement mathematics instruction in order to support and extend mathematical thinking in all strands, how to use research-based lessons to effectively support the CCSS. How to create and implement lesson plans to effectively integrate quality problem solving lessons as part of mathematics instruction, and how to analyze student work samples in order to improve student achievement.	K-1 2-3 4-5
Measurement for the K-5 Classroom	1	This one-credit course addresses specific topics from the CCSS measurement domain. This course is designed to develop the teacher's content knowledge in the area of Measurement. Pedagogical knowledge will be enhanced through sharing of materials and teaching practices in order to improve student accessibility. Main topics in this course are comparing and ordering objects, measurement (weight, volume, length, and size), estimation, time, problem solving, communication, reasoning and connections with a focus on the elementary classroom.	K-5

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Number Sense for the Elementary Classroom	1	This course provides an in-depth exploration of number sense and its applications relevant to the CCSS curriculum in the elementary grades. Participants in the course will explore topics from multiple perspectives, including linkage to other content and process strands, and real-world applications.	K-5
Assessing and Developing Number Concepts: Counting and Number Relationships	1	Counting and beginning number relationships are core concepts in the Common Core State Standards and the foundation of elementary mathematics. Participants in this workshop will learn how to use *Counting Objects, Changing Numbers*, and *More/Less Trains* assessments to assess student understandings of these concepts, to identify student needs, and to plan small group instruction.	K-3
Problem Solving for the K-6 in the Classroom	1	This course provides an in-depth exploration of problem solving and its applications to the CCSS in Kindergarten through sixth grade. Participants in the course will develop and analyze a variety of methods and strategies for problem solving as well as explore the problem solving opportunities they are currently offering their students. Main topics in this course are phases of problem solving, problem-solving strategies, and criteria for good problems, questions that promote mathematical thinking, routine-vs.-non-routine problems, and evaluation and assessment. Classroom applications and adaptations to meet the needs of diverse populations will be addressed.	K-6

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Problem Solving in the CCSS, Addition and Subtraction	1	How do we help students become flexible thinkers? This workshop is designed for teachers who want to learn about the different types/structures of problem solving relationships in the CCSS. Participants will learn how these apply to their grade level. The central focus of the workshop will show how to build student understanding of addition and subtraction using problem solving.	1-5
Problem Solving in the CCSS, Multiplication and Division	1	How do we help students become flexible thinkers? This workshop is designed for teachers who want to learn about the different types/structures of problem solving relationships in the CCSS. Participants will learn how these apply to their grade level. The central focus of the workshop will show how to build student understanding of multiplication, and division using problem solving.	3-5
Collaborating with Families of K-5 Math Students	1	How can family members support their child in the development of understanding mathematics? During the class participants will engage in family math activities through the eyes of a parent. This class will provide you with resources that can be used in the classroom and home. Class time will be provided for participants to create their own family math activity.	K-5

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
4-5-6 Math Seminar: Data and Measurement		Full day seminar focusing on improving content knowledge and instructional practice focusing on *Data Analysis and Measurement.* Participants had the opportunities to: review categorical, numerical, univariate and bivariate data, review appropriate use of graphical displays, discuss selection of appropriate types of graph for a particular set of data, share how students formulated questions, collected, organized, displayed and interpreted data, identify and model ways to teach essential skills and concepts for measures of center: mean, median, mode. Examine measurement concepts in order to enable students to use measurement systems, tools, and techniques while comparing objects, counting units, and making connections between spatial concepts and number.	4-6
Site Based Work and Best Practices		Purpose: To meet with individual teachers and/ or grade levels to ensure best practices are being met within the classroom. Observation took place, lessons were modeled, and lesson plans were completed collaboratively.	K-5
Elementary K-5 Curriculum Alignment		Purpose: In order to address *increasing student achievement* teachers will: align the current mathematics program with the Nevada State Mathematics Standards to plan for effective instruction. Vertical alignment will also be examined in order to ensure best practices.	K-5
Articulation		Purpose: Mathematics Articulation K-5 will address increasing student achievement through vertical alignment, identifying common threads, maintaining consistent instruction, examining the standards, and planning for effective instruction.	K-5

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Math Misconceptions	1	What do we do when students have misconceptions about mathematics? This class will provide instructional strategies and activities teachers can use to undo these misconceptions. Time will be provided for participants to use class resources to develop instructional ideas and engaging activities in any classroom.	K-2 3-5
RTI Basic Fact Support		Purpose: Instructed small groups in grade to increase basic fact retention at several school sites. Modeled strategies for K-5 teachers to increase basic fact retention of addition, subtraction, multiplication, and division.	K-5
Assessing and Developing Number Concepts K-3: Addition and Subtraction:	1	Internalizing number combinations to 10 with fluency is a core concept in the Common Core State Standards and requires the ability to see parts of numbers, use number relationships to move beyond counting, and to decompose numbers into all their possible combinations. Participants in this workshop will learn how to use *Number Arrangements, Combination Trains*, and *Hiding Assessment* to assess student levels of proficiency with these concepts and to identify and meet student needs through independent practice and small group instruction.	K-3
Problem Solving and Higher order thinking		Half -day workshop focused on problem solving strategies, number sense, and higher order thinking.	K-5
Constructed Response Trainings		Purpose: Teachers were instructed on how to understand, teach, and formulate constructed response questions. Constructed response questions are part of the Nevada State CRT's in mathematics, language arts, and science. Constructed response questions can assess higher-level thinking and should be a part of curricula.	3-5

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Operations and Number Sets (MS certificate program)	2	This two-credit course addresses operations with the following numbers sets; whole numbers, fractions, decimals, percents, integers, exponentials. Great emphasis is placed on answering the "why" behind the basic operations.	K-12
Introduction to Probability, Statistics, and Geometry Concepts (MS certificate program)	3	This three-credit course is designed to make teachers more comfortable in their knowledge, understanding, and application of middle school mathematics. Topics covered include Simple and multi-stage probability, odds, counting methods, expected value, measures of central tendency, measures of dispersion, and graphing.	K-12
Algebra for the Classroom Teacher (MS certificate program)	3	This three-credit course has been updated to CCSS and emphasizes linking the concepts and skills taught in a first year algebra class to previously learned material and outside experiences. The main topics in this course include Evaluating Algebraic Expressions, Solving Linear Equations & Inequalities, Word Problems; one & two variables, Relations & Functions, Polynomials, Solving Quadratic Equations, Simplifying Rational Expressions, Graphing Linear Equations, Solving Systems of Linear-Quadratic Equations, and Solving Higher Degree Equations; Rational Root Theorem.	K-12

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Problem Solving (MS certificate program)	3	This three credit course has 8 mandatory class meetings with the instructor as well as outside assignments. The required assignments involve participants in solving a variety of problems that would be appropriate for the middle level student. The problems require use of 10 problem solving strategies including: going back to the definition, looking for a pattern, drawing a picture, examining a simpler problem, examining a related problem, guessing and checking, making a chart, identifying a sub-goal, writing an equation, and working backwards. This class does not have to be taken sequentially, but must be completed by the end of the geometry class.	K-12
Euclidean and Non-Euclidean Geometry (MS certificate program)	3	This three-credit course has been updated to NVACS/CCSS. It follows the curriculum taught in a high school geometry class with an emphasis on transformations, similarity and congruence. Topics covered include the study of angles, polygons, circles, areas and volumes, congruence, similarity, constructions, and transformations.	K-12
Practicum (MS certificate program)	2	This two-credit class emphasizes the Components of an Effective Lesson, teacher expectancies, and the teacher dispositions identified for National Board Certification. Classroom observations are be made to determine the level of implementation, principals are asked to make observations and comment, and teachers may attend classes to prepare for the PRAXIS in Middle School Mathematics.	K-12

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Intermediate TI-84 Plus and Nspire (MS certificate program)	1	This course is designed to train teachers in the use of graphing calculators. Participants focus on the appropriate use of technology to solve problems using a variety of calculator functions such as tables, graphs and the home screen. This course is a sequel to the introductory course. In this course, participants write some low level programs along with exploring functions under different menu items.	K-12
Introduction to TI-84 Plus (MS certificate program)	1	This course is designed to train teachers in the use of graphing calculators. This course is only for beginning users. Participants focus on the appropriate use of technology to solve problems using a variety of calculator functions such as tables, graphs and the home screen.	K-12
Literacy in the Content Area – MATH (MS certificate program)	1	This course is specifically designed for teachers of mathematics classrooms. Developing an understanding of present day brain research, teaching strategies can be incorporated to assist students with the learning of new math concepts and skill. These techniques are modeled, discussed and practiced in this training, Use of children's literature books,	K-12
Exeter Summer Institute 2014	2	This two-credit course approaches mathematics instruction from a problem-solving approach, using inquiry and technology to explore mathematical concepts. Teachers take two of several sub-courses including: Teaching the Fundamentals of Algebra, Statistics - High School, Problem Solving in Geometry, Statistics – Middle School, Geometers' Sketchpad, and Probability and Combinatorics.	8–12

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Constructed Response Preparation for Criterion Reference Tests		This training is designed to prepare teachers to understand and incorporate constructed response and free response instruction and assessment techniques.	6-8
Test Taking Strategies for High Stakes Tests		Training in test-taking strategies provides a model for teachers and students to learn to develop appropriate problem solving skills for grade-level specific objectives and constructed response items on the CRT.	6-8
SBAC (Smarter Balanced Assessment Consortium)		Nevada is a member of the SBAC state-led consortium. These sessions emphasized the need for rigor in the classroom through review of the released sample assessment items that go beyond the questions teachers are familiar with on the CRT and NHSPE. Extended-response, technology-enhanced items and performance tasks were included.	6-12
Nevada Educator Performance Framework (NEPF) Training		This series of trainings provides a breakdown of the 5 NEPF standards and their 19 indicators. Recommended strategies are modeled, highlighted and discussed specific to mathematics instruction. These strategies and materials emphasize ways to connect to prior knowledge, provide for high cognitive demand, require discourse and metacognition, while assessing learning.	K-12
Nevada Academic Content Standards (NVACS)		Nevada continues the 3rd year rollout of academic content standards in grades 3-8, and the first year of rollout in Geometry and Algebra 2 Honors. These trainings aid teachers with the knowledge and depth of the new standards, strategies that should be incorporated and materials that can be used in the classroom the next day.	K-12

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Technology/Online/Distance Education			
The Internet for Educators	3	This course will examine the potential of Internet technologies to influence K-Adult education. Students will actively explore: (a) a wide variety of on-line informational, curricular, and interpersonal resources, (b) ways to successfully integrate on-line resources in teaching and learning, (c) current issues, policies, and trends pertaining to global electronic networking.	K-12
Integrating Technology into Teaching and Learning	3	This is an intermediate level course that focuses on methods for effectively integrating computer-based technology in teaching and learning. The course is an investigation into the uses of computers and computer-based technology in the classroom, integration of technology into teaching and learning process, using the principles of instructional design in the design of technology-rich learning environments, designing and developing technology-based instruction/learning materials for educational/training settings. Topics include learning theory & technology, instructional software, technology hardware, learning management systems and implementation of various video applications. Emphasis on current implementation issues as well as future trends. Students will be prepared to identify and design the technology needed for their specific classroom or educational workplace.	K-12

List of SNRPDP Classes and Other PD Sessions Available During 2013-2014 School Year

Course/ Training Title	Credits (if applicable)	Description	Grade Levels
Creating Online Learning Environments	3	Educational Web site development using contemporary tools and contexts. Emphasis on web-based programming and user interface design. Web 2.0 technologies and Online learning environments will be investigated into the uses of integration of technology into teaching and learning processes. Online tools will be explored and the use of commercial products will be discussed and used to produce a portfolio of pages, sites and resources.	K-12
Digital Media Publishing for Educators	3	In this course, you will learn techniques for creating multi-page documents. You will build upon those skills, learning about page layout, typography, and graphics. To enhance your print and Web publications, you will employ methods for formatting text, for creating and editing graphics, and combining different forms of media through various types of local and web based software.	K-12
Microcomputer Technology and Managing Technology Resources and Facilities for Educators	3	In-depth look at how personal computers work. Microprocessors, printed circuit boards, bus structures, storage devices, and display options examined from the perspective of how they impact educational applications, purchasing decisions, and planning.	K-12

2.1 UNDUPLICATED COUNTS OF TEACHERS, ADMINISTRATORS, AND OTHERS WHO PARTICIPATED IN SNRPDP/NELIP TRAINING

During the 2013-2014 School Year, SNRPDP trainers impacted just under **40,000** teachers and administrators. Of these, about **22,600** attended professional development offerings, including in-service sessions, presentations, and workshops. Of these, just fewer than **38%** of the total

participants were unduplicated. In addition, about **2,000** teachers and administrators had trainers visit their classrooms, where SNRPDP trainers were either modeling specific lessons, giving feedback after observing a lesson, and/or providing one-on-one mentoring. The information on professional development participation was gathered through contact logs provided by trainers on a monthly basis.

- **39,823** ***teachers and administrators were impacted by the Southern Nevada RPDP trainers***
- **22,642** ***participants attended professional development offerings (classes, in service sessions, presentations, and workshops at a specific site), of which, about* 38% *are unique (unduplicated) participants.***
- ***Regional trainers met with* 2,877 *teachers and administrators in planning sessions at the school, region, and district level to support planning to increase student achievement.***
- **1,968** ***teachers and administrators had trainers model lessons in their classrooms, were observed by trainers to receive feedback on use of specific strategies, and/or experienced mentoring by SNRPDP trainers.***
- ***Our trainers contacted and provided professional development for 1*4,942 *administrators.***
- ***Over* 1000 *teachers were assisted by regional trainers through e-mail. This support ranged from answering planning and strategy questions to finding materials and strategies to support specific struggling students within the classroom.***
- **3,502** ***contacts were made in rural counties (Carson, Esmeralda, Lincoln, Mineral, Nye, and White Pine). These contacts included staff in service sessions, individual teacher assists, and planning both at the site and district level.***
- **314** ***contacts were made during parental engagement sessions.***

The following table shows the number of participants in all of SNRPDP's professional development offerings by content area during 2013-2014. Almost a third of the participants (31%) attended sessions that focused on NEPF. Literacy and English-language arts had the second largest number, serving 26% of participants.

Content Area	Number of Participants	Percent of Total
Literacy-ELA	10,404	26%
Mathematics	1,899	5%
Science	4,763	12%
Technology/Online/Distance/Multiple Content Areas	6,196	16%
Administrative	4,105	10%
NEPF Specific Training Sessions	12,456	31%
TOTAL	**39,823**	

2.2 DELIVERY OF SERVICES

SNRPDP training sessions are delivered in a myriad of ways: presentations, in service professional development, workshops, classroom modeling and teacher mentor sessions, coursework, summer institutes, on-line and distance education, interventions, and through programs.

In keeping with our philosophy to provided sustained professional development, many SNRPDP training sessions are long in duration, as shown in the table below. In fact, when weighing the duration of training with the total number of classes, in service professional development, presentations, and workshops (see table below), 31% of our professional development impact occurs with sessions that are 2 days or greater, and 33% occurs with our full day sessions. This is a very positive aspect of SNRPDP's commitment to quality and useful professional development where a longer time spent in a specific content allows the participant to receive richer instruction and more in-depth strategies. In addition, literacy, English-language arts, mathematics, and science all offer benchmark workshops that last three hours. These three hour workshops may be combined and participants may receive one graduate level credit for attending five of these workshops within the same content area; therefore, many of the participants who attend these shorter sessions, attend multiple workshops and receive many more hours of sustained training.

Professional Development Duration	Number of Sessions	Weighted Impact Factor (no. of session × hours)	Percent of Total Weighted Impact Factors
Less than 1 hour	27	27	1%
1 to 3 hours	276	828	20%
Half day (4 hours)	160	640	16%
Full day (6-8 hours)	168	1,344	33%
2 days or greater, including 1, 2, and 3 credit classes (15 hours or greater)	78	1,248	31%

Coursework, while embedding instructional practices, is geared largely to increasing teachers' content knowledge in a particular subject. Typically, this is accomplished through 1-, 2- or 3-credit courses designed by the SNRPDP and offered through a post-secondary institution (see the beginning of this section for a table listing all the graduate-level courses that SNRPDP offers). These graduate level credits can be used for re-licensure and salary advancement, and in some cases can be part of a master's degree program. Programs of study provide training for certain disciplines at specific grade clusters. In general, the professional development opportunities are designed to increase knowledge and induce change in practice in the classroom (see the qualitative analysis relating SNRPDP courses to student achievement in Section 5). A few introductory courses help participants understand what may be missing in instruction in order to move them forward to the knowledge and implementation levels. This is particularly important if, for instance, participants are unaware of the components necessary to provide a balanced literacy instruction.

The majority of classes are taught by the SNRPDP regional trainers. The trainers were hired for their expertise in specific content areas. We also have a large contingent of part-time trainers who are selected based upon recommendations and observations. The work by these regional trainers and part-time trainers helps to insure that teachers can impact the students in their classrooms and in so doing increase student achievement.

2.3 Revision of SNRPDP Services Based on Needs Assessments and Previous Evaluations

Professional development needs are based on numerous pieces of information: student performance, formal needs assessment, informal discussions with teachers and administrators, and

suggestions on evaluations. The delivery of services has remained consistent in the SNRPDP. We use the *Teacher Expectancies*, *Components of an Effective Lesson*, and BAM as structures that support professional development, and we offer trainings based on how the services were described in Section 2.2. Changes in topics are revised based upon teacher need and student achievement gains. *More information about what we are learning from our analysis linking SNRPDP PD activities to student achievement is found in Section 5.*

The commitment of the SNRPDP is to do as much as possible on or close to the school site. However, the large geographic area that is served by SNRPDP makes this very difficult with the limited personnel and resources, so we also provide regional and district-wide training. In addition, with the availability of new media we offer on-line training and training to rural participants via videoconferencing and online course management systems. Finally, the SNRPDP offers publications in all content areas in order to reach as many teachers as possible.

2.4 Collaborative Planning and Implementation of PD services with other RPDPs, Other Service Providers, and Higher Education Institutions

The SNRPDP collaborates regularly to plan coursework, classes, seminars, and workshops with other K-12 providers. For instance, some reading courses were developed jointly with NREA. This work is now embedded in and reinforces the work of Reading First and CCSD's CORE. Summer Institute is planned with county representatives to insure that needed curriculum is offered. Additionally, the secondary science team worked in conjunction with Curriculum Professional Development of CCSD to offer a joint summer institute for secondary science teachers. The algebra, middle school math, and science seminars are planned and delivered with local school district personnel. Universities are provided course descriptions to approve coursework acceptable to their institutions. Regular monthly meetings are held with local school district personnel to coordinate trainings in different subject areas so we are reinforcing each other and not duplicating efforts needlessly. Administrative support is planned jointly and all involved providers meet monthly to plan and coordinate training for building level administrators.

In 2013-2014, SNRPDP used the Pathlore system to schedule and track professional development activities in concert with the Clark County School District. The SNRPDP also shared in the cost of the program. For professional development, which receives university credit, participants used the UNLV online registration system.

Nye County provides office space for the trainers working in the rural counties (i.e., Esmeralda, Lincoln, Mineral, and Nye). The rural counties work collaboratively with the SNRPDP to design and implement professional development that meets their particular needs.

2.5 Services to Whole schools and Facilities in Developing and Implementing School Improvement Plans and Teacher Learning Teams

Additional services have been offered to low-performing schools. Those services include assigning a regional trainer to the school to work more closely with staff in specific content areas and instructional strategies. Three administrators-on-special-assignment work with the school's administration implementing the changes being recommended. This work includes collecting, interpreting, and analyzing data to write a school improvement plan. It is expected that schools that seek the additional assistance will fully implement the suggestions/recommendations provided by the SNRPDP staff. If the school administration rejects those suggestions, then the schools are invited to attend regularly scheduled SNRPDP activities to receive professional development.

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3. WHAT IS THE QUALITY OF SNRPDP TRAINING?

3.1 TEACHER AND ADMINISTRATOR RATINGS

A critical component in evaluating professional development activities is obtaining data from participants that rate their reactions to the training (Guskey, 2000). To assess participant reactions, *RPDP Activity Evaluation Forms* are used at all professional development activities. These forms provide immediate formative feedback on the quality of the professional development, with questions being uniform among all the Nevada RPDPs. These questions were designed to ascertain the quality of training as defined by: the extent to which the activity meets participants needs, the effectiveness of the presenter, the quality of the presentation, whether the activity adds to participant knowledge and skills in teaching, and whether the knowledge and skills will be used to improve teaching, particularly for students with special needs. Reaction data are summarized for the past three years in the table below.

RPDP Activity Evaluation Questions	Average 2011-2012	Average 2012-2013	Average 2013-2014
#1: The activity matched my needs.	4.6	4.7	4.6
#2: The activity provided opportunities for interactions and reflections.	4.7	4.8	4.7
#3: The presenter/facilitator's experience and expertise enhanced the quality of the activity.	4.8	4.8	4.8
#4: The presenter/facilitator efficiently managed time and pacing of activities.	4.8	4.8	4.7
#5: The presenter/facilitator modeled effective teaching strategies.	4.8	4.8	4.7
#6: This activity added to my knowledge of standards and subject matter content.	4.7	4.7	4.6
#7: This activity will improve my teaching skills.	4.7	4.8	4.6
#8: I will use the knowledge and skills from this activity in my classroom or professional duties.	4.7	4.8	4.7
#9: This activity will help me meet the needs of diverse student populations.	4.7	4.7	4.6

Range:
Score of 1 = Not at All Score of 3 = To Some Extent Score of 5 = To A Great Extent

Teachers and administrators who have taken part in SNRPDP training have given the program very favorable ratings along all dimensions. On a scale of 1 to 5, with 5 the highest, all ratings have clustered around 4.7. As shown in the table, teacher and administrator's evaluations have remained fairly static over the last three years. The evaluation numbers given indicate a high level of satisfaction by those teachers and administrators participating in the SNRPDP's professional development opportunities.

3.2 Quality Assurance Procedures

The trainings provided by the SNRPDP are reviewed by the regional trainers and director at the beginning of each year to ensure they meet the professional development standards adopted by the Statewide Coordinating Council of the RPDPs. Every regional trainer has been provided a copy to ensure those standards are being implemented, when appropriate. The professional development standards are also reviewed with the part time trainers when they are first hired to ensure they are implemented in the trainings they provide. To insure that the professional development standards were in fact met, each team correlated existing courses to the standards. These correlations were submitted to the director of the SNRPDP.

Additionally the quantitative scale is used as a measure of participant satisfaction. However, this single measure is certainly not enough. Each class uses participant comments in conjunction with the scale. This two-fold process assures more quality; however, actual in-class follow-up would allow a true triangulation. The SNRPDP conducts a sample of these in-class follow up sessions, with the results summarized in Section 5.3.

3.3 Administrator and Teacher Assessments and Reviews

Generally, the evaluation and reviews of the trainings provided by the SNRPDP are very positive as illustrated by the following emails and cited activity evaluations. However, the SNRPDP's philosophy is and has been that professional development should result in increased student achievement (see Section 5 for more details).

In order to ensure this occurrence, the SNRPDP has put structures in place, which support the trainings being offered through the program. Some of those supports are not readily accepted by all teachers and are sometimes seen as an intrusion on their academic freedom. Specifically this refers to the *Components of an Effective Lesson* and *Teacher Expectancies*. Both the *Components of an Effective Lesson* and *Teacher Expectancies* have been criticized by some classroom teachers who feel overburdened with their responsibilities. As an example, the SNRPDP stresses the need for students

to take notes. Research suggests that "writing it down" is the number one memory aid to enhance student progress; writing it down correlates to taking notes. Many teachers feel that note taking should be a student responsibility, not theirs. While students do have responsibilities with respect to note taking, the SNRPDP believes that teachers should be very directive and prescriptive when teaching to ensure the notes students take in class can be used to effectively and efficiently complete their daily homework assignments and can be used as the primary vehicle to prepare for tests.

The trainings provided by the SNRPDP are intended to generally have an immediate impact on teacher knowledge (content, instruction, and assessment) as well as having a long term impact on how they perform their jobs (see Section 5 for more details).

Examples of Unsolicited Email Messages

Good Morning Sara,

I just wanted to tell you that I love your literacy connects. It is really wonderful to read suggestions and find that I already use most of them and then learn a few more to add to my practice. Probably what I enjoy most is the contact with someone who is truly a master versus someone who just thinks they are. Thank you for the continued challenge; you are a true blessing!

Jan Tilden
Palo Verde English 11/English 11 Honors

Hi Ms. Pam,

Hello and good evening, I just wanted to say thank you for a great RPDP training/learning session on how to use the NEPF to observe student and teacher behaviors. Our discussions today really assisted me with defining how I will support teachers in the proceeding years as an instructional coach. Thank you for answering all my questions and sharing your great knowledge of the NEPF. Have a great Friday! :)

Sincerely,
Sandra L. Ratner-Miller
Performance Zone 3 K-5 Instructional Coach
slratner@interact.ccsd.net
Tobler Elementary School
Telephone: (702) 799-4500
Fax: (702) 799-4520

Examples of Unsolicited Email Messages

Hello Carol,

I want to let you know how much I appreciate the excellent education I received from R.P.D.P.'s math program. I thought you would like to know I was hired today as a 7th grade math teacher at Schofield Middle School!

Thank you very much for your help and I'm now interested in becoming certified to teach 8th grade Algebra for high school credit. I only want to do this, so I can teach 8th grade someday and not move into high school. What are my options for the future, because I'm not finished taking math courses?

Again, thank you very much for the excellent preparation I received from you and the other excellent teachers like Tia Price of R.P.D.P.!

I hope you have a wonderful weekend. I know mine will be outstanding - I'm celebrating BIG TIME!!!

Mr. Diggins
4th Grade Teacher
Steven G. Schorr Elementary School
799-1380

Hi Bill,

Good seeing you today. Wanted to let you know that I've seen 3 presentations from RPDP (including today) on the NEPF in the last week and was really pleased with the facilitation from your trainers as well as the engagement from participants.

Theo

Theodore Small
Vice President
Clark County Education Association
tsmall@ccea-nv.org
702/473-1017 Office
702/371-3811 Mobile

Examples of Unsolicited Email Messages

Bill

I am writing this letter to thank you and your staff for all the help RPDP has provided to the Esmeralda School District. It would be difficult for Esmeralda to provide all the needed Professional Development without the support of RPDP. One important aspect of your organization that I really appreciate is the willingness of you and each of your staff members to always be available to help.

Although other members of your staff have assisted in various training activities, Dr. Rob Roberts, Glenn Krieger, and Chelli Smith have been especially instrumental in contributing to the success of our District.

Dr. Roberts, with his vast knowledge and experience of school legislation and operations, has served as an invaluable resource not only to me personally, but also to the Esmeralda Board of Trustees and various staff members. I especially appreciate your making him a member of the RPDP team and allowing him to share his expertise with our District.

Glenn Krieger has been instrumental in helping our District to provide excellent technology instruction to our students. Glenn has spent a considerable amount of time and effort to ensure that the most current use of technology is available in each of our classrooms. Esmeralda really appreciates all the help Glenn and RPDP has given to the District.

Chelli Smith has provided the District with excellent professional development in several areas over the past few years. Her enthusiasm, subject matter knowledge, and professionalism is appreciated by all our staff. Much of the academic success of the District can be attributed to her providing our teachers with the expertise for instruction in the classroom.

Again, thank you and RPDP staff members for all your help. The District is looking forward to working with you again this next year.

Gary Gazaway
Esmeralda County School District Superintendent

Examples of Unsolicited Email Messages

Dear Kathy,

Thanks. The book sounds great and will share it with my grade level. I think we had some good discussions. It really made me think. :)

Lisa Tanin
Fourth Grade, Rm 64
D'Vorre & Hal Ober Elementary School
3035 Desert Marigold Ln, Las Vegas, NV 89135
702-799-6077 x.3064
ljtanin@interact.ccsd.net

Hi Sara,

Thank you so much for coming out today! Today was one of the best days I have had as an administrator. I appreciate your feedback, coaching and conversation. I have already received text messages from teachers saying how great it was having you at Spring Valley today. Please come again soon! You are SO appreciated. -Tara-

Tara Powell
Cornell House Administrator
Spring Valley High School
702-799-2580 ext. 4202

Dear Sara,

I just wanted to let you know that the first time pass rate for the Writing portion of the HSPE at BCHS this year was 90%. I know that you often wonder if what you do has an impact and I can tell you that it definitely does. A few of my teachers have mentioned the role of Write To Learn in that achievement. So again, thank you for your assistance the last couple of years.

Kent Roberts
Principal
Boulder City High School
702-799-8200 x4100

Examples of Unsolicited Email Messages

Hi Kathy,

Thank you SO much! :) You are an amazing support to our school and your time is much appreciated! See you on February 12th! :)

Dr. Cailin Ellis, Principal
D'Vorre and Hal Ober Elementary School
3035 Desert Marigold Lane
Las Vegas, NV 89135
(702)799-6077

Hi Karl,

I wanted to let you know how much I appreciate your help. The information you shared with our Algebra teachers was great.

I have already observed some of our new teachers implementing some of your advice.

I saw three columns in one class and a new separate notebook for 'notes' in another.

We would love to have you come out to share some of your student engagement ideas.
Are you available 1/15? It's our first half day for finals and we are scheduled for an extended time.

Thanks,
Tara Crouch
Boys & Girls Swim Coach
Girls Golf Coach
Mathematics Department Chair
tcrouch@interact.ccsd.net

Examples of Unsolicited Email Messages

Hi Cheryl,

I can't thank you enough for coming and presenting yesterday to our Math Dept. In a relatively short amount of time, you succinctly delivered all the main points of Standard 1, why it's good practice we're looking for and then you brought things to them from a math perspective. I know that helped people feel better about what you presented because you have lived in their world as a math teacher. Plus, your presentation wasn't preachy and teachers didn't feel like this was insurmountable. I especially appreciate how you're breaking it down by strand with some secondary examples. YEAH!!!!!! You did all of that within 25 minutes.....exactly the kind of chunks I can do to get this PD out to everyone.

Luckily, your information is certainly transferrable to other departments with a little tweaking which also made it helpful for me as I move forward whole school. I think I'm going to slow down and take my lead from you. Perhaps I'll work two weeks behind you so I can adjust and then present to staff if that's OK. You truly provided the right support at the right time for me as well. I think I was going too big to start and really need to focus more by department rather than whole staff. That's my new scheduling challenge but it was truly the right thing to do to help teachers. That was a good eye opener for me as well.

I so appreciated that you stayed afterwards, too. You listened to our teachers and some of their frustrations and again, provided a listening ear but also some suggestions.

Thank you, thank you, thank you!!!
Kerry

Kerry Pope
Principal
Southeast Career and Technical Academy
(702) 799-7500 ext. 4100
secta.us

Examples of Unsolicited Email Messages

Hi David!

I just wanted to thank you for coming to Cartwright yesterday. You really made sense of the book and how to use it. THE most powerful part was when you discussed the P-values. I looked at our current grades from last year. Very enlightening! It explains why I have been a bit frustrated with our progress given the gains they made last year as we were told.

Thanks again!

Liz Conlin
Cartwright ES
1050 E. Gary Ave.
Las Vegas, NV 89123
799-1350

Mr. Hanlon,

I am writing to inform you that Saralyn Lasley is an invaluable asset to RPDP and to CCSD. I have worked at 3 different schools and at each school the staff and administration share the same sentiments with regards to Saralyn and her knowledge, expertise and energy. As a teacher I always looked forward to attending trainings with Saralyn and now as an administrator she has become an even greater resource. Saralyn has facilitated exemplar professional development sessions at Spring Valley High School and we eagerly anticipate inviting her back. In addition, Saralyn is always just a phone call away and willing to listen, provide feedback and coaching advice. In short, Saralyn is simply fantastic!

Tara Powell
Cornell House Administrator
Spring Valley High School
702-799-2580 ext. 4202

Examples of Unsolicited Email Messages

Good evening Mendy,

I wanted to take a moment and thank you for your tremendous support of our kindergarten team this school year. Your two visits to our campus in the last month have been incredibly beneficial. I so appreciated your feedback on the first visit. It was helpful for me to conduct observations with you due to your strong coaching background and previous teaching experiences in kindergarten. Your notes and observations have enabled us to have some powerful conversations about print-rich learning environments and scaffolded instruction. Thank you also for continuing to keep me informed of various professional development materials and opportunities that I can share with our kindergarten team.

Your modeled lessons this Monday provided a strong model for our kindergarten teachers as they were able to see how you unwrapped a Kindergarten CCSS Writing Standard and incorporate both shared and interactive writing. Your integration of technology into the lesson and structured writing and conversation stems for the students provided a solid foundation that we can build upon in our writing instruction. Writing has been an area we have struggled with in kindergarten this school year, and your lesson ideas and modeled lessons have given us a model that we can use as we work with all three writing genres. Thank you for both modeling a lesson and writing out the rest of the week's writing plans. Through your detailed plans, our teachers could see how your purposeful introductory lesson would inform the rest of the week's instruction and culminate in the students writing their own narrative text. In fact, two of the kindergarten teachers stopped me in the hall yesterday to share how much they appreciated your modeled lessons. They were ecstatic to support students in generating their own writing rather than copying exactly what the teacher had on the board. Watching the students use their phonics skills and encode as their wrote their narrative sentences was further proof of the impact your modeled lessons and feedback have made.

We are looking forward to working with you again in January. Thank you again!

Happy Holidays,
Annemarie Stover
Assistant Principal

Doris Hancock Elementary School
1661 Lindell Road
Las Vegas, NV 89146
702.799.4205
702.799.4183 (FAX)

Examples of Unsolicited Email Messages

Dear Bill,

Saralyn has been out to work with our English department at Legacy High School for years. Her workshops have been focused on increasing rigor, Common Core State Standards, assessment, text-dependent questioning and engaging students in the classroom. Her professional development gives teachers both theory practical application and ideas. Her relevant and applicable practices benefit teachers and student success. Teachers are excited to attend her sessions and feel that she is a great asset. As a former English teacher who attended multiple sessions lead by Saralyn and as an administrator over Professional Development, Saralyn is an amazing resource to lead PD and a wealth of knowledge for answering questions.

Jamaica Vandolah
Legacy High School
Dean of Students
150 W Deer Springs Way
North Las Vegas, NV 89084
702-799-1777
fax 702-799-1701
jvandolah@interact.ccsd.net

Shan and Mendy,

Just wanted to give you both a shout-out and big thank you for your work here at Ute Perkins on Tuesday! I received very positive feedback from all the participants. You gave them some very concrete modeling and resources to which they could relate, and you generated excitement in them to venture further into the techniques. Both lessons went very well and were well-received. I appreciate your hard work in preparing for the full-day PD, and look forward to possible future collaboration!

Thank you again--have a wonderful day!

Mary Scialabba
Principal
Ute V. Perkins Elementary School
1255 Patriots Way, Moapa, NV 89025

Examples of Unsolicited Email Messages

Dear Mendy Henry,

On behalf of Performance Zone 12, thank you for presenting to the elementary teachers and administrators during the collaborative staff development training at Goolsby Elementary School on November 4,2013. With nearly 300 teachers representing 16 elementary schools, Staff Development Day was an amazing undertaking -one that would not have taken place without knowledgeable presenters such as you.

Based on preliminary survey results from elementary school teachers, Staff Development Day was a huge success. Over 90% of the surveys indicated that teachers would like to attend staff development
with other schools again in the future. The opportunity to work with other teachers and professional trainers from Performance Zone 12 schools and district departments was appreciated by all.
Again, thank you for sharing your time and expertise.

Sincerely,

Karen West
Academic Manager, Performance Zone 12

Examples of Unsolicited Email Messages

Dear Mr. Hanlon,
I just read and enjoyed your newsletter on Family Engagement. I completely concur with your comments! Your newletter was "real talk" and well written...thank you for that!

Also, I want to take a moment to thank you for being MY math teacher at UNLV 15 or so years ago. Whenever, you saw a blank, or confused look on my face you would totally stop and ask if I needed clarification! And you were sincere about it. You got me thru math...
You are totally an amazing teacher and a leader in education!

As I'm sitting here in my classroom, on a Saturday morning (actually I will be the entire weekend) I appreciated your comments about the amount of work teachers have to put in to do their job...Thank you for the "real talk!" I do it for my students, I want the best for them!

Cindy Corderman
First-grade Teacher
Whitney Elementary School-924
Phone # 702 799-7790

Saralyn,

Sorry this has taken so long but I wanted to thank you for your time and efforts out here at PVHS. Because of you there have been and will be changes which should help improve us as a school.

Also, thank you for the work you put in with the staff as many have told me how helpful they found what you did and explained for them.

Good luck down the road and best wishes to you

Max Buffi, Principal
Pahrump Valley High School

Examples of Unsolicited Email Messages

Dear Karen,

Every principal that you presented for regarding the NEPF on Staff Development Day raved how awesome you were with presenting and answering questions from the staff :)

Thanks so much,

Brenda

Brenda Larsen-Mitchell, Ed. D.
Academic Manager, Performance Zone 8

Greetings Kathy,

We wanted to thank all of you for the Math Professional Training this afternoon. It was very informative and helpful!

Looking forward to more discourse,
Tawnee Johnson, Lisa Marjie, Heather McEnulty, & Donna Simms

Hi Kathy,

Just wanted to drop you a quick note and say THANK YOU!! The information you shared with the intermediate teachers was incredibly useful. We are going to be incorporating much of what you shared into our long range Curriculum Engine Planning Project days coming up next week. We really appreciated your assistance!

Kelly

Kelly A. Reed
Instructional Coach Project Facilitator
799-4380 x4201

Examples of Unsolicited Email Messages

Dear Carol Long and Cheryl Barnson,

On behalf of Performance Zone 12, thank you for presenting to the middle school math teachers during the collaborative staff development training at Fertitta Middle School on November 4,2013. With nearly 300 teachers representing every middle school and content area, Staff Development Day was an amazing undertaking -one that would not have taken place without knowledgeable presenters such as you.

Based on preliminary survey results from middle school teachers, Staff Development Day was a huge success. Over 90% of the surveys indicated that teachers would like to attend staff development with other schools again in the future. The opportunity to work with other teachers and professional trainers from Performance Zone 12 schools and district departments was appreciated by all.

Again, I thank you for sharing your knowledge, facilitating the Power Point presentation, and providing leadership to PZ 12 math teachers.

Sincerely,

Karen West
Academic Manager, Performance Zone 12

Bill, for the second year in a row Brown JHS did really well on the NSPF. We are very proud of the exceptional instruction our teachers provided to our amazing students. I want you to know that Sara Lasley was a huge part of our success. The work she did with our ELA teachers was exceptional. I appreciate her tremendously and wanted to share that with you. I am now the principal at Del Sol High School and have MUCH work to do again, so I asked Sara to assist my new team. She is amazing, but I am sure I do not need to tell you that about her.

Gregory Misel
Principal
Del Sol High School

Examples of Unsolicited Email Messages

Dear Mendy Henry and Shan Cannon,

On behalf of Performance Zone 12, thank you for presenting to the elementary teachers and administrators during the collaborative staff development training at Goolsby Elementary School on November 4,2013. With nearly 300 teachers representing 16 elementary schools, Staff Development Day was an amazing undertaking -one that would not have taken place without knowledgeable presenters such as you.

Based on preliminary survey results from elementary school teachers, Staff Development Day was a huge success. Over 90% of the surveys indicated that teachers would like to attend staff development with other schools again in the future. The opportunity to work with other teachers and professional trainers from Performance Zone 12 schools and district departments was appreciated by all.

Again, thank you for sharing your time and expertise.

Sincerely,

Karen West
Academic Manager, Performance Zone 12

3.4 RESEARCH AND DEVELOPMENT BASIS FOR "BEST PRACTICES" AND "HIGH QUALITY" TRAINING PROVIDED BY SNRPDP

The SNRPDP uses the *Backward Assessment Model* as the primary vehicle to deliver professional development. A clear link between content and student academic standards is established using the *Backward Assessment Model*. This model provides onsite and on-going professional development in content and pedagogy in the discipline teachers teach. The *Backward Assessment Model* requires teachers to communicate at all grade levels and subject levels and work collaboratively to identify what they expect students to know, recognize, and be able to do for major units of study and assessments that will demonstrate student mastery based upon school curriculum documents and the new state standards. This communication creates an awareness of the new standards and establishes consistency and balance in the delivery of instruction to meet the needs of all learners.

Regional seminars using the *Backward Assessment Model* have been developed so teachers can share their knowledge of content and pedagogy, resources and successful teaching strategies between schools. Additionally, teachers receive training at these seminars in implementing lab or technology in their classrooms. These seminars have been provided for elementary math and science teachers, middle school math and science teachers, and algebra teachers. As a follow up to the seminars, regional trainers (both full and part-time trainers) observe and tape teachers in their classrooms while implementing lessons and working with the students. These tapes are given to the teacher, so that each teacher can see himself or herself and work through the *Components of an Effective Lesson* and *Teacher Expectancies*. After seeing themselves, the teachers then meet with a regional trainer to determine the next step in improvement of their own practice.

The outcome of this journey is identification of content weaknesses. The SNRPDP can then offer content support based on the individual identified needs. Regional trainers are used in a support capacity and are available for specific content and pedagogy questions. Trainers serve as a resource, problem solver, and coordinator while outside consultants are used as needed. "BAMing" is supported in the research; the SNRPDP also believes that professional development should be on site, and ongoing, in the discipline teachers' teach, in content and pedagogy, and with teachers as active participants. Teachers make a difference. Teachers working together make a greater difference. By pooling our resources, knowledge, and information, student achievement will increase.

The *Components of an Effective Lesson* are modeled after standards based lessons, which are supported by educational research and identified as best practices. The components are used as a support structure to help teachers and administrators stay focused on the daily objective.

Since it is the belief of the SNRPDP that it is not a matter of **IF** students will forget material presented to them, but a matter of **WHEN** they will forget it, a second review period is incorporated into the components so students will have less of a chance to forget what they learned.

By providing teachers content knowledge, instructional strategies to work with all students, and training in evaluating assessments combined with structures that support professional development such as BAM, the *Teacher Expectancies*, and *Components of an Effective Lesson*, the SNRPDP is providing high quality training that supports best practices in the research. Ultimately, SNRPDP strives to provide professional development activities that appreciably increase the quality of instruction, which in turn empowers students to reconstruct knowledge over time.

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4. Are Teachers and Administrators Learning New Skills and Content to Improve Instruction?

Teachers are constantly trying to improve their instruction and provide a balance in the delivery of instruction and assessment in their programs. Teachers often must examine their own teaching styles so that they can then tailor instruction to match their students' learning styles. The SNRPDP provides opportunities for teachers in all content areas to look closely at their content and explore teaching techniques and skills to ensure that all learning modalities are met. In so doing, they are assessing and teaching in a variety of ways including traditional paper and pencil activities and performance and application projects. This influences teaching because assessment matches instruction.

For the past five years, SNRPDP has examined participant learning in detail. As part of the program's three-tiered qualitative analysis to examine the connection between SNRPDP activities and student achievement, most participants in 3-credit classes were given a pre- and post-test, assessing content understanding, as well as understanding of the *Components of an Effective Lesson* and *Teacher Expectancies* (CEL-TE). As discussed in detail in Section 5, participant gains in understanding were moderate to high in all content areas and levels.

Another method used to evaluate teachers' implementation of these new skills is analyzing the written comments on the RPDP Activity Evaluation Form about the content material being presented. Follow-up contacts are used after the training to determine the actual implementation within individual teachers' classrooms. However, due to a high trainer to school ratio, this can only be done a limited basis.

CCSD changed their teacher evaluation instrument to reflect the professional development activities advocated by the SNRPDP. The new teacher appraisal form lists the *Components of an Effective Lesson* and *Teacher Expectancies*. Both of these focus teachers on students' learning.

In addition to having the *Components of an Effective Lesson* and *Teacher Expectancies* incorporated into teacher evaluations, the SNRPDP has continued implementing the Certificate Programs in areas of identified shortage. These programs allow teachers to attain the status of "highly qualified" under the federal No Child Left Behind Act by receiving 150 hours of professional development. More importantly, teachers going through the Certificate Program receive a program of study based upon what they teach, how they teach, and at the grade cluster in which they teach. In these programs, teachers receive professional development content, pedagogy, and assessment.

The credits earned with our certificate (science and math) count towards a master's degree and upon passing the PRAXIS, participating teachers will be licensed middle school teachers in mathematics or science.

With respect to administrative training, the SNRPDP's philosophy is site administrators are very important to a school's success. We, therefore, have emphasized administrative training. By hiring a cadre of administrators, the SNRPDP has provided training, especially in interpreting data, to help administrators understand the needs of their own student populations. These administrative trainers have worked with individual building principals assisting them with their school improvement plans. The SNRPDP has collaborated with groups like NASA and CCSD to plan and implement administrative training appropriate for novice and veteran administrators.

Site administrators are encouraged to attend teacher-training sessions so they know first-hand what is being recommended by the SNRPDP. In this way, principals can look for those recommendations being implemented in the classroom to maximize the benefit to the students.

ADMINISTRATIVE TEAM IMPACT STATEMENT

The Southern Nevada Regional Professional Development Program consists of four full and five part time administrative trainers: Kelly Bucherie, Marjorie Conner, Sue DeFrancesco, Pam Hicks, Bart Mangino, William "Rob" Roberts, Pam Salazar, Karen Stanley, and Sylvia Tegano. The administrator team provided professional development sessions to Clark County School District, Nye County School District, Lincoln County School District, Esmeralda County School District, and Mineral County School District Counties. Sessions were designed and tailored with focused emphases on the NEPF specifically for Districts, Clark County performance zones, and identified administrator and teacher audiences. The team focused on developing capabilities and resources to support administrators and teachers in implementing the Nevada Educator Performance Framework (NEPF). This implementation proceeded in phases as detailed below.

Phase 1: Embracing and Enlightening

In the 2013-2014 school year, the Administrative Training Team professional development sessions focused on the work in line with the ***Continuum of Expectations*** (see next page). This Continuum informed the implementation process for the Nevada Educator Performance Framework (NEPF) Standards for both teachers and leaders during year one of the Validation Study conducted by WestEd. The Continuum lists the materials developed and the differentiated levels of professional development offered utilizing the resources from the Margaret Heritage work with the Center for Research on Evaluation, Standards, and Student Testing (CRESST) as well as the specific training sessions and materials developed for the administrator, teacher, teacher leader and central office personnel trainings developed by SNRPDP professional development providers.

Continuum of Expectations Nevada Educator Performance Framework			
Building Common Awareness	**Advancing Common Understanding**	**Using Common Language**	**Seeing Common Practices**
✓ CRESST Module 1A ✓ Unpacking Standards Activities (Teachers and Administrators) ✓ Identifying Evidence on Instructional Standards ✓ "At a Glance" – Teacher Instructional Standards (Tool for collaborative discussion sessions) ✓ "At a Glance" – Administrator Instructional Standards (Tool for collaborative discussion sessions) ✓ Video Viewing - template to use with the CRESST videos and others from other providers such as the Teaching Channel	✓ CRESST Module 2 (Standard 1) ✓ CRESST Module 3 (Standard 2) ✓ CRESST Module 4 (Standard 3) ✓ Subsequent CRESST Modules as released (Standards 4 & 5) ✓ "At a Glance" – Teacher Professional Responsibilities (Tool for collaborative discussion sessions) ✓ "At a Glance" – Administrator Professional Responsibilities (Tool for collaborative discussion) ✓ Elementary and Secondary drop down resources from NEPF tab (Videos and narration for each of the 5 Standards in the content areas of ELA, Math and Science) ✓ Video Viewing – template to use with on-site videos of teacher practices (Ex. Videos of Instructional Coaches delivering instruction or model lessons of teacher leaders)	✓ Planning with the NEPF in Mind ✓ Digging Deeper – Teacher Professional Responsibilities ✓ Digging Deeper Administrator Professional Responsibilities ✓ Identifying Evidence – Teachers and Administrators ✓ Conference Guides ✓ Digging Deeper Teacher Instructional Standards ✓ Digging Deeper Administrator Leadership Standards	✓ NEPF Standards and Indicators in Practice – on site collaborative classroom visits focused on the "practices not the practitioner" (Can be facilitated at the site level by RPDP subsequent to either large group or site-based training on the "Do You See What I See?" protocol). ✓ Moving from Evidence to Standards to Conferencing: How to Implement Formative Supervision Practices (In development)

Phase 2: Priorities and Practices

The first priority of the administrative team was to focus on the Validation Schools and their administrators to introduce them to the NEPF Standards and Indicators by developing and modeling professional development sessions that could be facilitated on site in varied time frameworks given their funding status. For example, Title I schools had supplemental funding to support rolling subs so that grade levels/departments could collaborate to

explore the language and expectations of the Standards in practice. Traditionally funded schools had only their site budgets to support collaborative opportunities for teachers to engage with the NEPF; therefore use of before and after school segments of time required training resources to be "chunked" to address their unique needs.

Three Validation School focus groups were offered in fall, winter and spring to determine what other supports might be needed and to inform the Validation Schools of the format and delivery of the WestEd Validation study to be conducted in spring of 2014. These sessions provided an opportunity for trainers to discuss with administrators what other resources might be helpful and also to have leaders share what worked well for them in working through the NEPF with their staffs.

The second priority of the administrative team was to move the message of the NEPF to Non-Validation schools so that those schools could begin the groundwork in anticipation of the NEPF being the appraisal system required throughout the state of Nevada. This was accomplished in various contexts:

- Site-based work with school staff to provide educators with activities and resources designed to increase their understanding of the NEPF
- Performance Zone sessions with Principals, Assistant Principals, and Deans to provide administrators with activities and resources designed to increase their understanding of the NEPF
- Performance Zone Academic Managers meetings to frame the required changes in supervising their caseload of principals/schools
- Principal leveled meeting at each level to ensure that all principals understood the NEPF implications and the requirement outlined in Statute
- Monthly professional development sessions in Lincoln County School District to provide administrators with activities and resources designed to increase their understanding of the NEPF
- Monthly professional development sessions in Nye County School District to provide administrators with activities and resources designed to increase their understanding of the NEPF
- Bi-weekly professional development sessions in Clark County School District to provide administrators with activities and resources designed to increase their understanding of the NEPF
- Professional Development sessions during targeted Clark County School District Staff Development Days and at schools throughout the year to increase their understanding of the NEPF
- Classroom observations with administrative teams in Clark County School District to identify NEPF instructional practices in action

- Overview and information session for Nevada Association of School Administrators (NASA) to increase understanding of the NEPF
- Bi-monthly review and information sessions for Nevada Association of School Superintendents (NASS) to increase understanding of implications on the implementation of the NEPF
- Professional development sessions and webinars to Clark County Performance Zone Instructional Coaches to increase understanding of the NEPF
- Professional development sessions to the Clark County Curriculum and Professional Development Division to increase understanding of the NEPF
- Professional development sessions at the Nevada Leadership Institute held on June 19, 2014, to further and deepen understanding on the NEPF
- Professional development to Clark County Assistant Academic Chiefs on June 24 on to engage in an in-depth review of the NEPF Administrator High-leverage Leadership Standards and Professional Responsibilities and to identify the support that both administrators will need in making the shifts in their practice
- Ongoing correspondence with all NEPF Validation School principals to offer support, determine needs, and provide professional development

NEPF Workshop Descriptions Developed by SNRPDP
Audience – K12 Administrators

Course/ Training Title	Description
Leading Learning: Unpacking the NEPF High-leverage Teacher Standards for Shifting Practice	This workshop provides an overview of the Nevada Educator Performance Framework Administrator and Teacher Standards. The basic structure and terminology of the performance rubrics are introduced and participants will examine the rubric components. Participants will practice using the rubric by engaging in a carousel activity that they can take back to their school to introduce the NEPF standards to their teachers. Administrators will be provided with several resources to plan next steps for strategically implementing the Nevada Educator Performance Framework in their schools.
Leading Learning: Identifying Evidence in the NEPF	This workshop focuses on the collection and organization of evidence for both the NEPF Administrator High-leverage Instructional Leadership Standards and the High-leverage Instructional Teacher Standards. Participants engage in thinking strategically about gathering high-quality artifacts to demonstrate performance. Participants will practice identifying evidence by engaging in an activity that they can take back to their school to introduce the collection of evidence in the NEPF standards to their teachers. Administrators will be provided with several resources to plan next steps for strategically implementing the Nevada Educator Performance Framework in their schools.

NEPF Workshop Descriptions Developed by SNRPDP
Audience – K12 Administrators

Course/ Training Title	Description
Leading Learning: Unpacking the NEPF Professional Responsibilities for Shifting Practice	This workshop provides an overview of the Nevada Educator Performance Framework Administrator and Teacher Professional Responsibilities Standards. The basic structure and terminology of the performance rubrics are introduced and participants will examine the rubric components. Participants will practice using the rubric by engaging in a carousel activity that they can take back to their school to introduce the NEPF Professional Responsibilities standards. Participants will also review the collection and organization of high-quality evidence by Standard and Indicator. Administrators will be provided with several resources to plan next steps for strategically implementing the Nevada Educator Performance Framework in their schools.
Leading Learning: NEPF High-leverage Instructional Leadership Standards in Action	This workshop provides an opportunity for administrators to engage in an in-depth review of the NEPF Administrator High-Leverage Instructional Leadership Standards so they can become more effective in making the shifts in their practice. Participants will practice using the rubric by engaging in an activity of viewing videos and vignettes of the standards in action that they can take back to their school to put into practice the shifts required by the new standards. Administrators will be provided with several resources to plan next steps for strategically implementing the Nevada Educator Performance Framework in their schools.
Leading Learning: Unpacking the NEPF High-leverage Instructional Leadership Standard 1: Creating and Sustaining a Focus on Learning in Action	This workshop provides an opportunity for administrators to engage in an in-depth review of the NEPF Administrator High-leverage Instructional Leadership Standard 1 so they can become more effective in making the shifts in their practice. Learning focus is on developing and sustaining a vision for high student achievement and college and career readiness, monitoring performance data, engaging teachers in reflection, and supporting teacher planning. Participants will practice using the rubric by engaging in an activity of viewing videos and vignettes of the standard in action to plan for the shifts required by the new standards. Administrators will be provided with several resources to plan next steps for strategically implementing the Nevada Educator Performance Framework in their schools.

Phase 3: Adapting and Aligning

The difficult work of communication arose from the ongoing decisions and discussions coming from the Teachers and Leaders Council (TLC) work; as a legislatively directed committee, the work of framing implementation while meeting the demands of the language in the law created a constant unfolding of direction and decisions for districts and thus schools. As SNRPDP staff acquired information from the TLC meetings, the SNRPDP administrative team framed summaries and included updates in their sessions to keep school leaders up to date.

As Validation Schools prepared for their potential site visits, interviews and focus groups, SNRPDP administrative trainers visited with each Validation School Principal for the purpose of reflecting on how their process has unfolded and what challenges and successes they experienced. The preliminary report by WestEd at the May 12th Teachers and Leaders Council Meeting strongly affirmed the need for continued professional development to assist with transitioning to the new Standards.

Phase 4: Reaching Out and Influencing

Realizing that there are many supporting and ancillary components that affect the NEPF implementation, our training sessions focused on how all the entities supporting schools need to focus on what must happen in their "work" to help school leaders accomplish their goals as defined by the NEPF.

NEPF Resources Developed by SNRPDP

Resource	Audience	Status
NEPF Standards Based Planning Guide for Administrators to Use with Teachers	Individual and Groups of Teachers, PLC's	Completed/ Posted
The NEPF Standards and Indicators in Practice Protocol (Do You See What I See?)	Site Administrators Instructional Coaches	Complete/For team member training only
Workshop Protocol for Digging Deeper into Teacher Professional Responsibilities Standards and Indicators	Site Administrators Teachers	Completed/Posted
Workshop Protocol for Digging Deeper into Administrator Leadership Standards	Site Administrators Academic Chiefs	Completed/Posted
Workshop Protocol for Digging Deeper into Professional Responsibilities	Site Administrators Academic Chiefs	Completed

NEPF Resources Developed by SNRPDP

Resource	Audience	Status
Observation Conference Guide for Administrators to Use with Administrator(s) they Supervise	Principals with their Administrator(s) they Supervise or Academic Chiefs and District Supervisors Connected to Schools	To be corrected and then posted by
Workshop Protocol for in-Depth Review of Standard 3 "Creating and Sustaining Productive Relationships" Instructional Leadership Standards and Indicators	Site Administrators Academic Chiefs	Completed/Not Posted
Workshop Protocol for In-Depth Review of Standard 4 "Creating and Sustaining Structures "Instructional Leadership Standards and Indicators	Site Administrators Academic Chiefs	Completed/Not Posted
Leading and Learning: Unpacking the NEPF Instructional Leadership Standard 1	All Groups	Completed/Not Posted
Leading and Learning: Unpacking the NEPF Instructional Leadership Standard 2	All Groups	Completed/Not Posted
Leading and Learning: Unpacking the NEPF Instructional Leadership Standard 3	All Groups	Completed/Not Posted
Leading and Learning: Unpacking the NEPF Instructional Leadership Standard 4	All Groups	Completed/Not Posted

NEPF Resources Developed by SNRPDP

Resource	Audience	Status
Workshop on Conferencing using the NEPF	Site Based Administrators	To Be Developed
Workshop Protocol for Establishing Norms for Collaborative Group Discussions	All Groups	To Be Developed

NEPF to be Developed

The resources in development for next year will include focus on conferencing and feedback in the supervisory process, gathering evidence to document the implementation of the Standards and Indicators, and supports for Teacher and Leader Professional Responsibilities. The calendar for anticipated professional development areas of focus is included in below.

NEPF Planning Calendar 2014-2015
Administrator High Leverage Instructional Leadership and Professional Responsibilities Standards

Month	Shifts & Practices
June	**Common Awareness** • As a team of administrative trainers, assess status of professional development delivery in the past school year and determine commitments for the next school year with the consideration of the Formative Planning Calendar activities. • Support Academic Chiefs in gathering the "best" evidence to characterize the schools' progress in attaining their goals.
August	**Developing Common Awareness** • Support all principals and substitute principals as they move to the awareness stage of NEPF, providing resources and training as needed • Work with district leadership to assess the status of their schools/caseloads to determine a plan for PD for 2014-2015. • Support principals and administrators in gathering the "best" evidence to tell their school story.

NEPF Planning Calendar 2014-2015
Administrator High Leverage Instructional Leadership and Professional Responsibilities Standards

Month	Shifts & Practices
September-October	**Advancing Common Understanding** • Continue supporting schools in initial work on NEPF to utilize the CRESST materials. • Continue to dig deeply into all standards for teachers and administrators • Work with the site leaders to become more proficient in conferencing, providing feedback, and gathering relevant data to monitor educator and program effectiveness
November	**Using Common Understanding** • Continue work with Standards and Practice site based walks to build capacity of school leaders to gather "best "evidence to support levels of performance.
December	**Using Common Understanding** • Provide professional development based on district identified needs to support continued growth and development on the NEPF
January	**Seeing Common Practices** • Work with site based administrators to document and detail evidence to support the Teacher and Leader Standards based on clear evidence across all Standards and Indicators.

SCIENCE TEAM IMPACT STATEMENT

The K-12 Science Team consists of three full-time trainers: Bret Sibley, Kristoffer Carroll, and Stacy Cohen, and one part-time trainer Carl Jarvinen. The primary responsibilities and impact for this year are:

1. Developing science content-specific online and face-to-face professional development modules for awareness, understanding, and implementation of the Nevada Educator Performance Framework (NEPF).

2. Providing leadership, guidance, networking, and building capacity in Nevada for understanding the vision presented in the Framework for K-12 Science Education and the Next Generation Science Standards.

3. Collaborating with district partners to advance district initiatives and offer guidance in development of wide-scale projects targeted at increasing student achievement in science.

4. Working in partnership with the Nevada Department of Education and Nevada universities to impact teacher content knowledge and instructional strategies that lead to increased student achievement.

5. Developing online resources including the High School Science Targeted Interventions for Proficiency in Science (***HS TIPS***) website and the Middle School Science Targeted Interventions for Proficiency in Science (***MS TIPS***) website.

6. Increasing instructional material to assist teachers in preparing their students for the Science High School Proficiency Exam and 8th grade Science Criterion-Referenced Test.

7. Offering graduate credit classes through the High School Science Certificate Program (HSSCP), Middle School Science Certificate Program (MSSCP), and Silver State Advanced Placement Summer Institute (SSAPSI) to teachers within Nevada.

8. Collaborating with the Department of Education, informal science educator groups, and community partnerships.

9. Supporting local, state, and national science organizations.

The following provides a brief description of these areas of focus.

Developing science content-specific online and face-to-face professional development modules for awareness, understanding, and implementation of the Nevada Educator Performance Framework (NEPF).

NEPF Science Professional Development Modules

As the Nevada Department of Education released plans for a Nevada Educators Performance Framework, SNRPDP was tasked with professional development for teachers and administrators. SNRPDP Science Team, to support this initiative, developed a three-phased professional development framework to support professionals as they progress from awareness, through understanding, and into implementation. The three Phases of the NEPF Professional Development Framework were developed and deployed in both and online and face-to-face environment to support all educators throughout Nevada. This highly targeted science teacher and administrator professional development is hosted on the SNRPDP Site for easy science department access (http://rpdp.net/nepf.php?action=show&type=Secondary+Science).

Each of the three Phases were developed based upon the literature of learning progressions with respect to professional growth and implementation, and the guidance from the literature review from the Department of Education. These professional development sessions were deployed and showcased during several professional development trainings

this year and will be a focus of the Middle School and High School Science Department Chair meetings for all CCSD science teachers in the Fall.

Providing leadership, guidance, networking, and building capacity in Nevada for understanding the vision presented in the Framework for K-12 Science Education and the Next Generation Science Standards.

NSTA Curator Project

SNRPDP Science Team was selected among several hundred submitting applicants (650 applications and 55 individuals were selected) to participate as a "National Science Teachers Association: Next Generation Science Standards Curator." As such, SNRPDP Science Team is the sole representative from Nevada on a project that seeks to find, evaluate and curate curriculum to support the new Next Generation Science Standards (adopted as the Nevada Academic Content Standards in Science). Curators will work to identify and vet high-quality resources that will help K–12 teachers and school, district, and state leaders implement the *NGSS*.

Science Matters State Coordinator

SNRPDP Science Team was selected to be the State Coordinator (SC) for Nevada. The SC is responsible for the administration of the state Science Matters network. The SC identifies and works with Key Leaders and Super Key Leaders to establish the state Science Matters program. The SC is often responsible for generating and sending messages for professional development throughout the state or in a defined region. The SC works with agencies, foundations, and various programs to identify state partners. The SC may seek grants and funding opportunities to support the delivery of face-to-face professional development workshops for members of the Science Matters network.

Networking Work Group Lead for Nevada's Next Generation Implementation Team

As one of five members of Nevada's National Team, we are charged with developing a state plan for implementing a new vision for science education in Nevada guided by the Framework for K-12 Science Education (NAP, 2012) and the Next Generation Science Standards (NGSS). This team's goals are to ensure proper communication of the Framework's vision, assist with standards adoption, and ensure proper implementation of the new standards through targeted and sustained professional development. Additionally SNRPDP provides leadership within the state serving as the Networking Group committee chair to communicate pertinent and timely information to Nevada's stakeholders as well as design and maintain a resource warehouse supporting these science education initiatives.

In order to build capacity and ensure equitable access to accurate and current information for Nevada's science education initiatives, SNRPDP created and manages the Nevada Next Generation Science Education Website - www.NevadaNGSE.net. Included on this website

are news stories organized within five categories: Framework, NGSS, Professional Development, Science Matters, and STEM. All stories are posted with supporting resources and links to other reliable sites for additional support. Site users have the option to provide feedback to story posts as well as submit content for inclusion on the NevadaNGSE site.

One of the true powers of the site is the ability for visitors to sign up as a Nevada science education stakeholder and become a part of the database for receiving Constant Contact e-newsletters highlighting recent story posts and science items requiring action. The site currently has 487 registered stakeholders, which represents a growth of greater than 125% this year, and the network continues to grow. Over this past school year the NevadaNGSE Website has received over 3900 unique visitors accessing stories.

Shown above is a screenshot from the Google Analytics tracking of the website activity this past year.

In an effort to embrace current technologies for providing increased access to opportunities, a social media campaign is also included on the NevadaNGSE Website. Facebook (https://www.facebook.com/NevadaNGSE) and Twitter (https://twitter.com/RPDPScience) are integrated into the website, offering stakeholders multiple ways to access current information impacting science education at local, state, and national levels. Both Facebook and Twitter have increased in "likes" and "followers" by greater than 200% this past year, providing evidence that the efforts to unite Nevada and create a network of informed stakeholders is advancing.

Collaborating with district partners to advance district initiatives and offer guidance in development of wide-scale projects targeted at increasing student achievement in science.

CCSD Cadre

The SNRPDP Science Team participated in a supporting and leadership role in the Curriculum and Professional Development Division's Next Generation Science Standards Cadre project. As such, SNRPDP Science Team supported teacher leaders on the cadre in planning and implementing science professional development to teachers K-12 with respect to interpreting and planning for the implementation of the newly adopted Nevada Academic Content Standards in Science. Over 320 Clark County School District teachers received a 4-hour training specific to their science content area as a result of this project.

DPAC – Clark County School District; District Parent Advisory Committee

With a strong sense of community outreach, the SNRPDP Science Team made several presentations at a senior community center to Clark County School District's parents of both elementary and middle/high school aged children. During these presentations we shared with parents, grandparents, and family members the excitement of inquiry-based science lessons and activities. Participants were able to experience hands-on science experiments. SNRPDP Science Team spread the consistent message of parental engagement and shared general information about standards and assessments. Families left with resources on how to find science help for their students and activities that they can try at home.

Project FOCCUS – Focusing on Crosscutting Concepts to Understand Science

SNRPDP Science Team worked collaboratively with administrators from Clark County School District, Lincoln County School District, and Storey County School District to develop a science teacher professional development cycle, Project FOCCUS. As a co-director on the Mathematics and Science Partnership Grant, Project FOCCUS, SNRPDP Science Team took a leadership role in the development, authoring, and planning for an intensive summer science institute, teacher best practices and reflection sessions, and an engineering design institute that will occur from August 2014 until June 2015. This large-scale MSP project will directly support teachers from all SNRPDP supported counties, in addition to Storey County, as Nevada transitions to the new Nevada Academic Content Standards in Science through practical, hands-on experiences that will directly link back to classroom pedagogy and content development. A central goal for Project FOCCUS will be the development and curation of curriculum materials that will be hosted and shared on a Nevada Science Teacher Network site for all science teachers to use in the classroom. These standards-based curricular materials will be vetted by higher education content experts, peer reviewed for pedagogical strengths, and used to support student achievement with linked assessment items. The Project FOCCUS leadership team is comprised of SNRPDP Science

Team Trainers, CCSD Curriculum and Professional Development Division science content Coordinators and Project Facilitators, Storey County School District Administrators, and University of Nevada Las Vegas Colleges of Science, Engineering, and Education professors.

Working in partnership with the Nevada Department of Education and Nevada universities to impact teacher content knowledge and instructional strategies that lead to increased student achievement.

State Leadership

During the 2013-2014 school year SNRPDP Science Team served as leaders throughout the state, at the request of the Nevada Department of Education, with the Nevada Academic Content Standards in Science. Through supporting and guiding state leaders with the adoption of the Next Generation Science Standards as the Nevada Academic Content Standards in Science, completing a gap analysis of our current state of science education and assessing needs for the future, representing our state on the national platform as Building Capacity for State Science Education team members, and setting standard recommendations for the proposed end of course exams, SNRPDP Science Team has served to support state science leaders as we transition to new science content standards.

Project FOCCUS

As described in section 3, Project FOCCUS is a long-term science professional development cycle funded by the Mathematics and Science Partnership Grant. Collaboration partners are the SNRPDP Science Team Trainers, CCSD Curriculum and Professional Development Division science content Coordinators and Project Facilitators, Storey County School District Administrators, and the University of Nevada, Las Vegas Colleges of Science, Engineering, and Education professors.

GEAR UP

SNRPDP Science Team members were asked to support and serve on the leadership team of a long-term, professional development cycle for middle school science, mathematics, and technology integration educators. Nevada GEAR UP, funded as a grant through the U.S. Department of Education's GEAR UP Program run through the Nevada Department of Education to the Nevada System of Higher Education. Nevada's GEAR UP program offers opportunities for students, parents, educators and schools. GEAR UP provides services to:

- Significantly increase the number of low-income students who are prepared to enter and succeed in postsecondary education.
- Significantly increase GEAR UP students' and families' knowledge of postsecondary education options, preparation and financing.

- Increase recruitment and enrollment of GEAR UP students in postsecondary education.
- Raise the expectations of GEAR UP middle school personnel so as to create a college-going culture that provides all students with the tools necessary to apply for and succeed in postsecondary education and future careers.
- Improve GEAR UP schools through coordination with school improvement plans and to increase a common understanding of P-16 articulation issues among Nevada middle and high schools.

The University of Nevada, Las Vegas and SNRPDP Science Team collaborated to address many of the goals of GEAR UP through targeted middle school teacher professional development in a GEAR UP STEM Institute. SNRPDP Science Team worked closely with UNLV professors to develop a professional development framework for STEM Education, create standards-based curriculum, graduate credit offerings, and plan a professional development institute that will occur during the summer of 2014.

Developing online resources including the High School Science Targeted Interventions for Proficiency in Science (HS TIPS) website and the Middle School Science Targeted Interventions for Proficiency in Science (MS TIPS) website.

An extensive collection of instructional resources and newsletters are available on the Southern Nevada RPDP website under the Science Tab for download. There are newsletters and lessons that are categorized under the Nature of Science, Physical, Life, and Earth strands appropriate for K-12 classrooms. Extensive resources for specific science benchmarks are housed within the **Science TIPS** tabs and these resources are explained below.

High School Targeted Interventions for Proficiency in Science (*HS TIPS*)

The ***HS TIPS*** website is a resource specifically designed to assist educators throughout Nevada in preparing their students for success on the Science HSPE. This site has a wealth of information to provide content background to teachers, particularly Nevada science teachers who are preparing their students to take the High School Science Proficiency Exam (HSPE). The site is broken down into Nevada's 63 high school benchmarks covering Life, Earth, and Physical science content, as well as Nature of Science.

The ***HS TIPS*** site is designed to be highly interactive. Users should find it easy to navigate between sections and to specific areas of interest. Each page is designed to provide a logical flow of information for a specific benchmark. Each benchmark page includes the following information:

- Easy to read background content information
- Common student misconceptions associated with the benchmark

- HSPE-style Depth of Knowledge leveled sample questions
- Links to excellent classroom-ready intervention strategies and resources

HS TIPS can be accessed from the SNRPDP Homepage at www.rpdp.net by selecting the **Science TIPS** link within the **Science** tab, or directly at http://rpdp.net/sciencetips_v2/

Middle School Targeted Interventions for Proficiency in Science (*MS TIPS*)

The ***MS TIPS*** website was designed to provide teachers with information related to the 6-8 grade band of the Nevada State Science Standards. This resource was created to provide Nevada's middle school science teachers with science content and pedagogy to assist with classroom instruction and to prepare their students for success on the Science CRT exam. The ***MS TIPS*** website addresses Nevada's 63 middle school benchmarks covering Life, Earth, and Physical science content, as well as Nature of Science. Included for each standard is a content review, student misconceptions, sample CRT-quality questions aligned to the newly adopted Depth of Knowledge (DOK) structure, sample Constructed Response questions with scoring rubrics, and intervention strategies and resources section. The ***MS TIPS*** Website was launched in early Fall 2008, with edits and revisions ongoing. ***MS TIPS*** can be accessed from the SNRPDP Homepage at www.rpdp.net by selecting the **Science TIPS** tab within the **Science** tab, or directly at http://rpdp.net/sciencetips_v3/.

Increasing instructional material to assist teachers in preparing their students for the Science High School Proficiency Exam and 8th grade Science Criterion-Referenced Test.

SNRPDP created and maintains instructional materials to assist science teachers in preparing their students for the Science High School Proficiency Exam (HSPE) and the 8th grade Science Criterion-Referenced Test (CRT). A high school and a middle school version of the Daily Review PowerPoint slides were created to assist teachers and students for these high-stake exams. The Daily Review PowerPoint slides contain over 160 sample exam questions that were modeled after questions that the students might encounter on the HSPE and CRT. Each slide contains a question with detailed background information to help explain the answer, the standard and benchmark that the item is aligned, and its DOK level. The Daily Review PowerPoint slides were emailed to all secondary principals in Southern Nevada and they are also available through the RPDP website under the **Science** tab.

Online practice tests for the Science HSPE and the 8th grade CRT were developed and hosted through Quia.com for students throughout the state. The sample tests were designed to match the matrices released by the Department of Education. Students are able to access the sample tests in a school setting or from their home computers. The link to the sample exams are under the **Science** tab on RPDP's website.

Offering graduate credit classes through the High School Science Certificate Program (HSSCP), Middle School Science Certificate Program (MSSCP), and Silver State Advanced Placement Summer Institute (SSAPSI) to teachers within Nevada.

High School Science Certificate Program (HSSCP)

One of the main purposes of the HSSCP is to strengthen the science knowledge base of perspective/current high school science teachers. The certificate program combines the science content and process standards from the Nevada State Science Standards (NSSS), as they relate to CCSD's high school earth science, biology, chemistry, and physics science syllabi, with effective pedagogy. The certificate program will emphasize the development of conceptual understanding through numerous classroom activities that are hands-on and laboratory oriented. The Components of an Effective Lesson is integrated into all aspects of the HSSCP.

The intent of the certificate program is to impact the quality and effectiveness of the science lessons being taught in the high schools immediately and positively. Each course is offered in a blended format where teachers attend half of the sessions in a classroom setting and the other classes are hosted through the online course management system, Moodle.

All credits earned through the HSSCP can be used for salary advancement and for re-licensure. All credits are university graduate level courses. The University of Nevada Las Vegas (UNLV) has developed a Master of Education in Science degree based on the RPDP High School Science Certificate Program.

Middle School Science Certificate Program (MSSCP)

The MSSCP has an intended target audience of K-8 certified teachers who currently teach elementary or middle school science. One of the main purposes of the certificate program is to strengthen the science knowledge base of perspective/current middle school science teachers. The certificate program combines the science content and process standards from the Nevada State Science Standards (NSSS), as they relate to CCSD's middle school science syllabi with effective pedagogy. The certificate program emphasizes the development of conceptual understanding through numerous classroom activities that are hands-on and laboratory oriented. The Components of an Effective Lesson and Teacher Expectancies are integrated into all aspects of the MSSCP.

The intent of the certificate program is to have an immediate positive impact on the quality and effectiveness of the science lessons being taught in the middle schools. Each course is offered in a blended format where teachers attend half of the sessions in a classroom setting and the other classes are hosted through the online course management system, Moodle.

All credits earned through the MSSCP can be used for salary advancement and for re-licensure. All credits are graduate level science credits that can be applied to a Master's

Degree in Curriculum and Instruction with an Emphasis in Science through the University of Nevada Las Vegas (UNLV).

Elementary School Science Courses

SNRPDP offers a variety of courses designed for K-5th grade teachers. The *Science and Literacy K-2* and *Science and Literacy 3-5* grade classes model how science experiences serve as a core for the development of appropriate scientific vocabulary, integration of informational texts, and nonfiction writing for elementary children. The *Introduction to Science Notebooks K-5* course is designed as an introductory class for teachers who would like to begin incorporating science notebooks in their classrooms. The 3-credit courses, *K-2 Science* and *3-5 Science*, give participants the opportunity to engage in activities that focus on science content knowledge by exploring fundamental scientific phenomena through inquiry, explore new methods and tools to facilitate inquiry-based learning, engage in reflective practice by sharing ideas and interacting professionally with a network of classroom teachers, and explore the use of assessment to facilitate learning in the classroom. All credits earned are graduate level from UNLV and can be used for salary advancement and for re-licensure.

Silver State Advanced Placement Summer Institute (SSAPSI)

SNRPD, in partnership with the Clark County School District has developed and implemented the Silver State AP Institute for the past nine years. Over this time, teachers from across Nevada attend this institute to learn the in-depth content and best-practice instructional strategies that enable them to teach students who will achieve on advanced placement exams and compete in STEM majors in college. Before the Silver State AP Institute, Nevada ranked near the bottom nationally with respect to the number and percentage of students enrolling in AP, as well as being ranked as one of the lowest states in test performance. Because of our sustained efforts through the Silver State AP Institute, Nevada now ranks at the national average with the percentage of students taking AP courses and above the national average in scoring. Ultimately, successful AP students will contribute to Nevada's prosperity as they transition to productive STEM careers. SNRPDP Science personnel coordinate laboratory equipment, purchase science supplies, and provide AP instructor support before, during, and after the institute.

Collaborating with the Department of Education, informal science educator groups, and community partnerships.

Connecting Hands: Offering Lifelong Learning Adventures (CHOLLA)

The CHOLLA group serves as a hub for many of the local agencies and organizations for community outreach and parental engagement at school sites. The members help teachers plan field trips, events, host community volunteer nights at different sites, and connect

students with service learning projects. SNRPDP Science Team was present at regular CHOLLA meetings throughout the year, assisting with Nevada Academic Content Standards in Science alignments to ensure programs result in measurable student outcomes. During these meetings, the SNRPDP Science Team volunteered to guide a leadership team to develop a community symposium that took place on February 22 and 23, 2014. The symposium, CHOLLA Symposium – Building Communities at Home, was developed for non-profit groups, informal educators, agencies and organizations which serve the local community, and community leaders. We worked side by side with various organizations and community members to assist with defining an organization's role in the community.

An extension of this symposium, a CHOLLA Professional Development Cadre, was established to help deliver the message about the NVACS in science, technology, and other various education topics. SNRPDP Science Team works closely with this cadre as we continue to support this community hub.

DRI's Green Box Institute

The Desert Research Institute of Nevada has a professional development team, the Green Power Program that is tasked with supporting teachers with curriculum to help students develop their understanding of sustainable and non-sustainable energy sources. Their mission statement is to support Nevada's preK-12 educators in science-based, environmental education by providing the tools, resources, and knowledge they need. This program receives funding from community members such as NV Energy and Southwest Gas. The Green Power program has developed curriculum, Green Boxes that function as science curriculum kits in a suitcase. These Green Boxes are available for check out and are shipped to teachers and shipped back after use.

The SNRPDP Science Team is currently assisting in planning a two-day workshop in August. We are working collaboratively to target science teachers in all SNRPDP supported counties. DRI is providing a travel stipend to assist rural teachers to attend. The SNRPDP Science Team is spreading the message to our supported counties that free science curriculum is available and accessible to all K-12 science teachers in southern Nevada. This workshop will highlight some of the Green Boxes that are available for teacher check out, the 5E instructional design model, and science content connections aligned to the NVACS in Science from science content experts.

Supporting local, state, and national science initiatives and organizations.

SNSTA Conference at A-TECH February 7th and 8th

Southern Nevada Science Teachers Association (SNSTA) is an organization of science teachers and science enthusiasts throughout the community. A central goal of the organization is to provide networking opportunities and connections among community

groups to support science instruction. SNSTA sponsors an annual science conference for educators, formal and informal. The SNRPDP Science Team assisted the SNSTA board members, over a six month period of time, in planning and preparing sessions for the over 200 attending science teachers. During that time we assisted with logistics, speaker proposal acceptance, scheduling, and the program. At the conference, SNRPDP Science Team assisted in bringing CHOLLA community members and teachers together to collaborate and plan to bridge science in the classroom and community. CHOLLA also helped teachers set up field experiences for their students. SNRPDP Science Team hosted a networking table where we shared resources, information about new science standards in Nevada, connected teachers to a support network on the SNRPDP Science Web Site, "NevadaNGSE.net," and offered current information about SNRPDP course offerings. Further, SNRPDP Science Team members ran sessions and formal presentations.

NSSTA STEM Conference

The Nevada State Science Teachers Association held its annual STEM Conference in Reno, NV with the support of the SNRPDP Science Team. SNRPDP Science Team members were involved in the planning, organization and logistics of hosting this statewide conference to support STEM field teachers. SNRPDP Science Team presented a STEM lesson during a session and provided STEM field teachers with a model for engineering design based on current K-12 educational research and the NVACS in Science and Mathematics. SNRPDP Science Team support was instrumental in making the NSSTA STEM Conference a successful professional development opportunity serving over 200 teachers in Nevada.

NV STEM Coalition

SNRPDP Science Team members were elected and serve on the NV STEM Coalition Board. As the new NVACS in Science include Engineering Design as a content area there needs to be a greater support network for science educators as they begin to incorporate engineering into current curriculum. The NV STEM Coalition serves as a non-profit aimed at supporting STEM initiatives throughout the state, including funding sources, connecting STEM professionals with classroom teachers, establishing student opportunities for scholarships and internships, and teacher professional development and advocacy. SNRPDP Science Team works collaboratively in planning and implementing STEM Education focused initiatives throughout Nevada to support science teachers.

MATHEMATICS TEAM IMPACT STATEMENT

Mathematics Team Impact Statement 2013-14

The Secondary Mathematics Team consisted of four full-time trainers - Carol Long, Cheryl Barnson, Cindy Ortiz, and Karl Spendlove. The Elementary Mathematics Team consisted of two full-time trainers - Kathy Dees and David Janssen, and one part-time trainer – Maria Dufek. Each trainer brought specific talents and abilities to the overall K-12 math professional development program.

The team's primary activities for this year included the following tasks:

- Middle School Certificate Program
- Workshops and classes for mathematics content and instructional strategies
    - Continued to implement workshops focusing on the Nevada Academic Content Standards for Mathematics
    - Continued to develop and implement Constructed Response and Smarter Balanced Assessment workshops
    - Provided Family Engagement workshops and events
- Professional Development opportunities for teachers
    - Smarter Balanced Assessment Consortium (SBAC) assessment questions
    - Nevada Educator Performance Framework (NEPF) training
- Resources for the Southern Nevada Regional Professional Development Program (SNRPDP) website including unit resources, substitute teacher resources, proficiency resources, and instructional videos
    - Resources for implementation of Nevada Academic Content Standards (NVACS)
    - Resources for unpacking documents for NVACS
    - Resources for NEPF
    - Resources for Family Engagement
- Service to county school districts including individual schools/departments
- Best Practices training for teachers, departments, schools, districts

- Elementary Mathematics University of Nevada Las Vegas (UNLV) courses
- Other Activities
    - Clark County School District (CCSD) support
        - Documents for Nevada Academic Content Standards (NVACS)
        - Committees and task forces
        - Elementary Math Summer Institute
        - Silver State AP Summer Institute
        - Secondary Math Summer Institute - Exeter
        - CCSD Curriculum Engine revisions and implementation
    - Posters for NVACS Mathematical Practices
    - Outlying County Support

The following sections provide more details on each of these activities.

Middle School Certificate Program

These programs consist of 16-18 credits in mathematics with instructional strategies. The impact for teachers included content and pedagogy along with the opportunity to earn graduate-level credits that may be applied to a Master's Degree in Curriculum and Instruction through University of Nevada Las Vegas (UNLV), and apply toward re-licensure and/or Clark County School District (CCSD) salary advancement. Each course included modeling of *The Components of an Effective Lesson* and *Teacher Expectancies*. Technology courses for TI-83/84/89 calculators were offered at two levels – introductory and intermediate. In addition, successful completion of the certificate program currently allows teachers with an elementary license (K-8) the option to teach Math 7 or Math 8, including Algebra I at the middle school level in Clark County School District.

Workshops and Classes

Two 2.5-hour face to face and follow up on-line workshops, aligned with Nevada Academic Content Standards, were offered for K-5 mathematics teachers: Math Vocabulary (NVACS), Basic Facts (NVACS), Discourse in Mathematics (NVACS), Number Sense, Mathematical Practices, Effective Questioning, Number Talks, Place Value, and Mini-Lessons for mathematical content.

For elementary teachers, NVACS trainings were formatted into full and half-day workshops, grade level meetings, and staff meetings. The purposes of the trainings were to define NVACS and to discuss the impact on instruction. The standards in the NVACS were unwrapped and investigated in detail. Teachers were given the opportunity to design activities and examine classroom activities that correlated with NVACS. Teachers were provided NVACS content, instructional strategies and activities to meet the grade level implementation, and resources were identified to allow for further research. Grade level specific lessons were modeled to support NVACS.

Training sessions on problem solving and higher order thinking at various school sites were formatted into full and half-day workshops, grade level meetings, and staff meetings. Teachers defined problem solving and experienced appropriate activities by grade level. Nevada Academic Content Standards were examined to ensure that problem solving was sufficiently and effectively taught in all classrooms. Content was provided to teachers in order to increase their knowledge base, instructional strategies were addressed and given, and resources were identified for further research.

Formative and Summative assessment training sessions at various school sites across the district were formatted into full and half-day workshops, grade level meetings, and staff meetings. Smarter Balanced Assessment test items can assess higher-level thinking and should be a part of curricula. One focus of the trainings was to identify Smarter Balanced response questions and determine what standards each problem assesses. A second focus was to instruct teachers on how to scaffold their instruction of Smarter Balanced problems so all students will be successful. The last major focus was to instruct teachers on resources for SBAC response questions. Considerable attention was dedicated to the critical areas of focus in NVACS at each grade level. Test taking strategies were addressed to increase achievement on the state assessment.

The Elementary Mathematics team facilitated fifteen UNLV classes that were offered throughout the district. Content specific courses were offered to ensure that the needs of the individual regions were met.

Other Professional Development

Elementary math trainers worked at several elementary school sites delivering professional development to teachers during prep or substitute release. During these workshops teachers developed a deeper knowledge of the NVACS at their grade level by unpacking the standards. Best practices in the implementation of these standards were used throughout these workshops. The trainers modeled lessons for the participants in each grade level.

Trainers provided specific training relating to the NVACS/CCSS and included rollout strategies in all trainings, including manipulatives and literacy in math. Changes for 6th grade include number systems, expressions and equations. Training also focused on 7th

grade number systems, expressions and equations, and geometry, and 8th grade functions, statistics and probability, and geometry, with more focus on the standards for mathematical practices.

Trainers provided specific training on the NEPF to CCSD performance zones, individual schools, and school math departments. The professional develop included specific training on the five standards emphasize 1) connecting new learning to prior learning and experience, 2) learning tasks that have high cognitive demand for all learners, 3) engaging students in meaning making through discourse and other strategies, 4) engaging students in metacognitive activities, and 5) integrating assessment into instruction. In addition, every SNRPDP training involving academic standards and pedagogy was done through the lens of NEPF standards.

Trainers provided training related to high-stakes testing (SBAC, CRT, NHSPE) and common district semester exams for middle school and high school teachers. Trainers provided staff development, discussed areas in which students traditionally experience difficulty, shared knowledge in content, experiences, resources, and materials to help students learn, shared successful teaching strategies that result in increased student achievement, and provided teachers specific recommendations for content and instructional strategies.

With the implementation of the Nevada Academic Content Standards for Mathematics,comes Smarter Balanced Assessments. Trainers provided professional development focused on released sample SBAC questions to target increased rigor in the classroom for improved student achievement.

Additional site-specific professional development was made available during or after school, as well as on CCSD staff development days. Changes in assessments based on sample SBAC questions, NVACS/CCSS documents were presented and discussed to promote awareness and implementation strategies. Constructed response training was presented to schools to prepare teachers to understand and incorporate this type of instruction and assessment techniques. At other schools, training in test-taking strategies was modeled for teachers and students to learn to develop appropriate problem solving skills for grade-level specific objectives and constructed response items on the CRT.

Secondary Math Summer Institute – Exeter focused on the standards of mathematical practice for the Nevada Academic Content Standards/Common Core State Standards. Through hands-on activities and cooperative methods of teaching and learning, this institute emphasizes understanding and application of concepts. Additional emphasis was placed on connecting new learning to prior learning, high cognitive demand for students, making meaning through discourse and other strategies, metacognitive activities, and formative assessment that is integrated into instruction. The six classes offered included the following: Teaching the Fundamentals of Algebra I , Problem Solving in Geometry,

Statistics – High School, Statistics – Middle School, Geometer's Sketchpad, and Probability and Combinatorics.

Website (*www.rpdp.net*) Resources

Unit resources were developed and continually updated to assist teachers as they plan instruction and assessment for each unit.

- Teacher resources for each unit were updated and posted for units in 6th Grade Math, 7th Grade Math, Math 8, Pre-Algebra, Algebra I, Geometry, Algebra II, Statistics, Precalculus, and Calculus. The resources are designed for the regular level of each of the above courses. Adjustments can be made for Intuitive Geometry, Applied Algebra II, and Honors courses.
    - The units are based upon math standards and appropriate benchmarks/pacing and have general correlation to current textbooks.
    - Sample notes are provided for teacher reference; the material is designed to be presented to students using proper note-taking strategies and specific NVACS/CCSS rollout changes.
    - The unit tests incorporate vocabulary, short answer, open-ended, constructed response, modeling questions (SBAC), and review problems. Each unit Practice Test should be parallel in structure and content to the corresponding Unit Test. This provides a great tool for teaching students how to study for tests using questions similar to those on high-stakes tests. It is recommended that the practice test be distributed to students early in the unit instruction and referred to frequently for review and discussion. Unit tests and practice tests may be used as provided or may be edited to fit individual needs.
- Teacher resource updates for grades 6-8 mathematics teachers specifically focused on the final roll-out and implementation of the NVACS/CCSS changes. This is a major change and will have an important impact on instruction.
- For Secondary Mathematics, comprehensive resources were prepared using videos and supporting activities to provide information and training on the Nevada Educator Performance Framework (NEPF). PowerPoints and videos for each standard provide support for other trainers, schools, departments or individuals to develop an understanding of the NEPF and how it applies to mathematics instruction in Nevada. Other resources for standards and indicators were provided and posted on rpdp.net.

- Elementary NEPF mathematics resources are bundled with ELA and Science. These resources include videos for NEPF training and understanding of the standards.

- Practice exams, practice questions, Criterion Referenced Test (CRT), and Nevada High School Proficiency Examination (NHSPE) support resources are also posted on www.rpdp.net.

- Elementary Mathematics created additional resources available for teachers on www.rpdp.net. The resources included instructional video clips on various math concepts. NVACS math units are available on-line to help with content knowledge and instruction. Resources were also added to support the teachers' use of models in math instruction. The family engagement section includes NVACS background, website and application to help parents assist their children at home.

- The Elementary Math Workspace on Interact was used as a resource for all the Nevada Academic Content Standards for Mathematics facilitation materials. This has provided a resource for the teachers who attended the RPDP classes/workshops. The intent of this site was to make the facilitation process easier for teachers to share with each other and to provide workshops at their school.

- Long-Term Memory Review (LTMR) resources provide four reviews and a quiz for a given concept or related concepts. Teachers use the LTMR resources to review material that students have had in previous instruction and to maintain linkage and continuity as students' progress through the different math courses.

Best Practices

At the request of administrators, regional trainers met with individual teachers and/or grade levels to ensure best practices were being met within the classroom at all grade levels. The regional trainers observed teachers, modeled lessons, and collaboratively wrote lesson plans. The focus of the individual trainings varied depending upon the needs of the schools and the individual teachers, but ranged from *Components of an Effective Mathematics Lesson* to incorporating writing in mathematics. Teachers were provided appropriate content for their area of need, instructional strategies, and time to explore resources available to increase effective instruction within the classroom, especially focusing on CCSS implementation.

Other Activities

K-12 Math Team members:

- Served on the state NVACS committees in creating documents for the state website.

- Supported implementation of the Nevada Academic Content Standards in mathematics with appropriate professional development.
- Served on a Nevada Department of Education committee for providing input pertaining to the implementation of end of course exams.
- Created and delivered posters with five types of SBAC questions for each school in Nevada for grades 3-8 and High School. These questions featured constructed response, extended response, performance task, selected response, and technology enhanced questions to provide samples for the variety of assessment questions that may be asked on SBAC tests.
- Consulted with specialists—English Language Learners, Special Education, etc.—to help these populations be more successful.
- Provided charter schools with observations, conferences, and training for test-taking strategies.
- Performed an active role in writing/creating documents for Nevada Academic Content Standards (NVACS) and rolling them out in southern Nevada.
- Continued support for the Silver State AP Summer Institute by providing UNLV credit opportunities for participants.
- Continued support for Lincoln County, Esmeralda County, Nye County, and Mineral County through training sessions, teacher support, and summer institutes.
- Provided publications – ***Got Math?*** is a newsletter from the SNRPDP Secondary Math Team with articles that highlight content, strategies, and resources for secondary math teachers. The topics included math content and support for understanding the NVACS and CCSS documents.

Secondary Literacy Team Impact Statement

The secondary literacy team consists of two trainers: Saralyn Lasley and Thomasina Rose. The team's primary activities for this year included:

- Provide professional development through graduate level courses.
- Provide instructional assistance for increased student proficiency on the new Nevada Formative Assessment Tools for 5th and 8th grade and the High School Proficiency Exam through writing trainings and task-based scoring sessions.

- Provide assistance for site-based curriculum walks and instructional site-based monitoring.
- Provide assistance to high schools for improved student achievement on high school proficiency exams in reading.
- Provide assistance on implementation, assessment, and classroom instruction utilizing the Nevada Academic Content Standards.
- Provide assistance with data interpretation and reflection to discover trends and create a professional development model for individual sites.
- Provide reading, writing, and vocabulary instructional strategies across the curriculum and support for increased student literacy development.
- Provide best instructional practices for increased student engagement and proficiency.
- Provide instructional assistance on formative assessment and progress monitoring in the classroom.
- Provide site-based support and training for developing and sustaining professional learning communities.
- Provide instructional and content specific support to meet the needs of the rural counties.
- Provide varied teacher resources to increase student engagement and motivation.
- Provide support for the development of the Smarter Balanced Consortium Formative Assessment Library as members of the State Network of Educators.
- Provide support for the Smarter Balanced Consortium as item reviewers.
- Provide instructional practices for digital literacy implementation in ELA and content literacy.
- Provide mentoring for new and struggling ELA and Content Literacy Teachers
- Provide and continually update online resource for ELA and Content Literacy
- Provide professional development and online resources for the Nevada Educators Performance Framework.

The following sections provide more information on each of these activities:

Professional Development

Clark County School District:

1. During the 2013/2014 school year, Secondary Literacy offered 21 graduate credit classes through UNLV: 15 one-credit, 3 two-credits and 3 three-credits. Nine of the one-credit and one of the three-credit classes were offered online. This year, we added 3 new classes to better support the NVACS: Rigorous Reading (how to read complex text); Comprehension, Collaboration and Communication (focusing on the Speaking and Listening strand); and Curriculum Mapping (how to integrate the NVACS into secondary ELA curriculum). To accommodate teachers from all regions of CCSD, classes were offered at different locations throughout the district. Course topics ranged from literacy strategies for all content areas; reading, writing and vocabulary strategies for language arts teachers; internet literacy; formative assessment, literacy in math and brain compatible strategies for all educators based on the Nevada Academic Content Standards.

2. Whole school and department training were provided upon demand. Topics focused primarily on the Nevada Academic Content Standards, the CCR, and writing assessment. Venues included the four scheduled staff development days, pull out substitute days, and after and before school mini-workshops.

3. Classroom observations and teacher mentoring and modeling was ongoing.

To support teachers in rural districts a variety of professional development venues were offered:

Lincoln County School District:

1. A week long summer institute was held at Panaca High School June 2-5, 2014. Secondary Literacy offered Rigorous Reading-How to read complex texts-- to continue to support the cross-curricular reading initiative in Lincoln County.

2. A one-day professional development day was held at Panaca High School on September 20 for all Lincoln County middle and high school teachers. Training included reading across the curriculum with a focus on integrating reading into all content areas. Teachers were encourage to write lesson plans that integrated texts appropriate to their subject matter and to create a plan for teaching students how to read increasingly more difficult material.

3. March 26-28, both secondary literacy trainers observed all middle and high school teachers in Alamo (3-26) and Panaca (3-27) as they taught a reading lesson. On March 28, during their staff development day, the trainers worked

with all the secondary teachers to debrief, reflect and build on the lessons observed on the previous days.

Esmeralda County School District:

1. The trainer worked with the superintendent of Esmeralda County to coordinate a formative writing assessment tools workshop for 5th grade and 8th grade ELA instructors.

2. Targeted instruction was delivered on staff development days with all 5th grade and 8th grade ELA instructors.

3. The trainer also assisted with scoring of student writing for 5th grade and 8th grade.

Mineral County School District:

1. On January 31, a trainer traveled to Hawthorne to deliver professional develop for all secondary teachers in Mineral County.

2. The all-day training focused on the NVACS and how to integrate high impact literacy instruction to prepare students for college and career.

Nevada Academic Content Standards

The trainers continued to provide assistance at both the middle and high school levels on history, implementation and classroom instruction utilizing the NVACS for the secondary English classroom and across the various disciplines. The trainings addressed the 3 shifts in literacy, the progression of the standards, and how this translates to the classroom, as well as how to monitor student achievement (formative assessment) and how to create high-level text dependent questions. Teachers utilized a back-mapping technique to develop lesson plans based on the Backward Assessment Model, teacher expectancies and the Components of an Effective Lesson. Teachers spent time unwrapping the standards, creating learning targets and establishing a platform for instruction. Additionally, the trainer worked with social studies, science and the technical subjects to help them better incorporate non-fiction reading and writing to support the CCR requirements and develop common thematic units with ELA.

Literacy Instructional Support - *Reading, Writing, Speaking & Listening, Questioning and Vocabulary across the Curriculum*

The trainers provided reading and writing across the curriculum instructional strategies and support for increased student literacy development. Content area teachers were trained in writing assessment model for their sites based on the holistic scoring process. Whole

school in-service trainings focused on using reading, writing, and vocabulary across the curriculum. Cross-curricular teams were utilized to design and implement literacy lessons for all content areas. Workshops gave teachers a framework on how to teach students to become independent, strategic readers with a focus on making connections, inferencing, and text analysis. Teachers were trained on text complexity and how to audit text for Lexile scores and grade level ability. Teachers were provided tools and techniques to use to instruct their students to become "Ready by Exit."

The Secondary Literacy trainers provided ELA literacy support in numerous areas relevant to secondary English and reading: differentiated instruction, flexible grouping strategies and differentiated assessment techniques; designing and implementing reading and writing workshop; using writing portfolios in single classrooms or school-wide, guided-reading instruction, content area reading instruction and writing strategies for success on proficiency as well as instructing our students to become life-long writers.

On numerous occasions, the trainers spent one to two days observing in secondary classrooms and meeting with teachers for mentoring and coaching. Often the observations were followed by a day of professional development to address commonalities seen during observations.

Nevada Educators Performance Framework

The secondary literacy team provided numerous ELA trainings on the NEPF for both pilot and non-pilot CCSD schools. Trainings included background on the NEPF, understanding the teacher instructional standards, lesson planning to align the CEL with the NEPF, and data collection. Multiple venues were used: one shot trainings during PD days, ongoing trainings during departmental PLC time, full- day workshops for learning strategists and coaches, and large zone trainings requested by zone managers.

Secondary Literacy Learning Strategies Workshops

Secondary Literacy provided four all-day workshops designed to support secondary learning strategists and their individual schools. The focus of these workshops was to provide relevant professional development in the following areas*: collecting and utilizing data; Literacy for the 21st Century and literacy across the curriculum; discourse and collaboration; cognitive coaching, mentoring and modeling.*

Provide Teacher Resources to Improve Instructional Planning and Student Engagement

- *Literacy Connects*—a monthly newsletter that is sent to teachers and administrators electronically. *Literacy Connects* offers cross-curricular strategies in the areas of reading, writing, vocabulary, questioning, grouping, and process learning. There are

currently 66 issues of this newsletter archived on the SNRPDP website. The last six issues of Literacy Connects were devoted to the teacher instructional standards of the NEPF.

RPDP Website Content and Development—Secondary Literacy has continued to focus on developing valuable literacy and NVACS resources for all secondary teachers, parents and students. Additionally, ELA content materials and video modules to support the Teacher Instructional Standards of the NEPF were developed and uploaded to the Website.

ELEMENTARY LITERACY TEAM IMPACT STATEMENT

The Elementary Literacy Team consists of five full-time trainers: Nathalie Brugman, Shan Cannon, Mendy Henry, Robyn Markovic, and Chelli Smith; and one part-time trainer, Kathryn Kinnaird. The team's primary activities for this year included the following: (1) Creating and distributing publications. (2) Serving on district and state committees relative to the content area. (3) Providing school support. (4) Offering CCSS K-5 ELA professional development courses. (5) Developing resources and providing training for the Nevada Educator Performance Framework. (6) Planning and facilitating two Summer Institutes, one in Lincoln County and one in Clark County, and a Summer Literacy Conference in Clark County.

Publications

The Elementary Literacy Team continues to produce a newsletter entitled *The Literacy LeafLIT*. This publication provides educators with instructional strategies that focus on best practices and can be used immediately in the classroom, as well as explanation, strategies, and resources pertaining to the 6 Effective Family Engagement Practices. The *LeafLIT* is emailed to every elementary school and posted on SNRPDP's website.

The Kindergarten Chronicles is a second publication that is targeted specifically for pre-K and kindergarten teachers. Lesson ideas and activities provide teachers with curriculum support and planning. This year's issues of *The Kindergarten Chronicles* are posted on the SNRPDP website along with the past seven years' editions.

In addition to these publications, the RPDP Kindergarten Teacher Conference Folder on Interact continued to offer a forum for Kindergarten teachers to collaborate, with Special K and pre-k teachers. Kindergarten teachers stay connected with one another (Full-Day Teachers, Half-Day Teachers, Upcoming SNRPDP Classes, Dual-Language, and Lesson Sharing) throughout CCSD.

District and State Committees

Literacy Team members organized and facilitated a committee of educators from across the state to develop K-2 formative writing assessment tools to mirror the tools previously developed for grades 3-5. Individuals on this team also created resources for the Smarter Balanced Assessment Consortium Digital Library and they serve on a committee that reviews these resources. Additionally, Literacy Team members worked in collaboration with the CCSD Curriculum and Professional Development Literacy department to create a district-wide literacy framework designed to help teachers effectively implement the Nevada Academic Content Standards. In conjunction with this new framework, this collaborative team planned and facilitated a Summer Literacy Conference for K-5 teachers.

School Support

Initial and follow-up literacy support was provided to individual schools, based on school-wide initiatives and specific needs. Trainings were offered school-wide, by grade level, and/or with individual teachers. Trainers offered teacher assistance in the following areas: lesson planning, model lessons, observations, post observation conferences and feedback, and resources. Areas of emphasis included: writing workshop, writing process and traits, guided reading, literacy centers and stations, phonemic awareness, word study instruction, grouping strategies, assessment, components of an effective lesson and the Backwards Assessment Model.

Nevada Educator Performance Framework

The Elementary Literacy Team created online training modules to support teachers' and administrators' understanding of the high-leverage instructional standards within the NEPF. Modules were designed to assist with the state-wide rollout of the NEPF and to provide accessible resources that illustrate effective instructional practices connected to the standards of the NEPF.

5. DO SNRPDP ACTIVITIES RESULT IN STUDENT ACHIEVEMENT GAINS?

5.1 ANALYSIS SUMMARY AND IMPLICATIONS

Traditionally, evaluating the impact of professional development on student achievement is challenging and requires substantial data collection efforts and a robust statistical analysis. Because of this, many professional development evaluations focus on participant perceptions about the quality of the training, including implementation and logistical factors, and do not specifically connect trainings to student achievement data (Guskey, 2000).

Since 2008, SNRPDP has undertaken the greater challenge by conducting a research-based and systematic evaluation to gauge the extent to which the program is impacting student achievement. This effort has required significant data collection efforts from the entire SNRPDP staff and a comprehensive statistical analysis to examine how our professional development activities are affecting student achievement gains in the school districts we service. The details of the analysis follow this summary, but the underlying conclusions are listed immediately below.

Conclusion 1. *SNRPDP professional development activities result in increased student achievement.*

Comparisons show that greater gains occur when a school has a high number of SNRPRP-trained teachers, with both quantitative and qualitative data sources providing compelling evidence for this conclusion. Specifically, the following ideas emerge from these various data sources:

- Sustained professional development that focuses on the content teachers teach results in greater student achievement gains.
- Content training that is supported at the school, region, and district level leads to greater student achievement gains.
- Teachers who reflect on their practice while undergoing sustained professional development show stronger change toward research-based methods, which in turn results in greater student achievement.
- As suggested in the *Backwards Assessment Model*, teachers working together in sustained professional development activities results in greater student achievement compared to teachers working alone.

Conclusion 2. *Pre and posttest data show that teachers who have participated in our classes make appreciable gains in content knowledge.*

SNRPDP will continue to improve the quality of its professional development activities by designing training environments that feature the elements listed above.

5.2 Analysis Background and Framework

In relating professional development activities with student achievement, SNRPDP's evaluation follows a tiered approach suggested by Guskey (2000). In this approach, Guskey defines the following five levels critical to professional development evaluation.

- Participant Reactions
- Organizational Support and Change
- Participant Learning
- Participant Use of New Knowledge and Skills
- Student Learning Outcomes

Participant reaction data are commonly collected in teacher and administrator professional development settings and SNRPDP is no exception. To assess participant reactions, *RPDP Activity Evaluation Forms* are used at all professional development activities. These online forms provide immediate formative feedback on the quality of the professional development, with questions being uniform among all the Nevada RPDPs. The reaction data from these forms are summarized in Section 3 of this report.

The organization support and change level concerns the impact of administrative decisions on professional development outcomes. SNRPDP has developed a systematic program designed to affect student achievement and reinforce what administrators can do to improve teaching in their schools. This program is called Profiles of Professional Practice (POPP) and is a school based professional development program for administrators to enhance efforts to increase student achievement. The components of each phase include a range of activities and strategies. POPP is designed to support administrators' endeavors related to student achievement: effective classroom visitations, substantive coaching for teachers, and relevant feedback for improving instruction, progressive curriculum alignment, and continuous school improvement. POPP, which was instituted in 2008, has continued through 2013-2014. More details about the program's effectiveness are found in Section 4 of this report.

The SNRPDP also works closely with administrators to ensure that our professional development activities are aligned with objectives at both the district and school levels. SNRPDP also encourages administrators to implement policies and procedures that support teachers as they implement the knowledge and strategies gained through Profiles of Professional Practice (POPP), as well as being actively engaged in their teachers'

professional development activities. For example, some principals participate with their teachers in the yearlong elementary writing project. This helps administrators to ensure that their policies enable effective implementation of writing lessons, as well as to assess the effectiveness of writing lessons in their school. However, it is the preference of the administrators as to whether or not they engage in the activities, and in essence, SNRPDP has little control over the support administrators give their teachers. Therefore, measuring organization support and change with SNRPDP's professional development activities is beyond the scope of this analysis.

To ascertain how SNRPDP activities are impacting student achievement, this analysis focuses on the final three critical levels:

- participant learning,
- participant use of new knowledge and skills, and
- student learning outcomes (i.e., state-level student achievement results).

Specifically, SNRPDP's self-evaluation uses both *quantitative* and *qualitative* measures to correlate its activities to student achievement.

The **quantitative segment** has the following tiers of analysis, which correspond to these final three critical levels.

- **Tier 1 (Participant Learning)**—evaluating changes in teachers' content knowledge over each SNRPDP 3-credit course (pre/post content surveys), as well as changes in their understanding of the *Components of an Effective Lesson* and *Teacher Expectancies* (CEL-TE) (pre/post questions embedded within the pre/post survey) (see Table 5.4 for a listing of the CEL-TE).

- **Tier 2 (Participant Use of New Knowledge and Skills)**—observing a random sampling of teachers who have taken SNRPDP 3-credit courses to verify if learned content and CEL-TE are being implemented in the classroom. (Note: for the past two years 2011-2013, SNRPDP has not done full lesson observations to reflect on progress made and support Clark County School District as they developed their new School Performance Framework.)

- **Tier 3 (Student Learning Outcomes)**—comparing student achievement changes using state criterion referenced tests (CRTs) and high school proficiency exams (HSPEs). Comparisons will be made between student achievement at schools with SNRPDP-trained and -observed teachers to schools who have not had SNRPDP-trained teachers.

The **qualitative** segment collects data to triangulate results with the quantitative segment. These data include written teacher reflections and summaries, as well as discussions of

teacher action research conducted in concert with SNRPDP professional development activities.

A primary challenge in evaluating professional development is gathering enough evidence to determine if the organization is achieving its goal. SNRPDP's strategy uses multiple measures with both quantitative and qualitative components, and is designed to provide sufficient understanding about the relationship between its professional development activities and student achievement levels in Southern Nevada.

For this analysis, quantitative data are thought of as "numerical" and qualitative are thought of as "non-numerical" (Trochim, 2006). The design and results for these analyses are discussed individually below.

5.3 Quantitative Analysis Design and Results

As discussed earlier, quantitative data have being collected to examine the three critical levels of professional development (1) participant learning, (2) participant use of new knowledge and skills, and (3) student learning outcomes. Because each of the levels follow sequentially, data are collected in tiers, with Tier 1 data related to participant learning, Tier 2 data related to participant use of new knowledge and skills, and Tier 3 data related to student outcomes.

Table 5.1 is an evaluation matrix, which provides a compact representation of the objectives, activities, evaluation procedures (data collection and analysis strategies), and indicators of success that are being used in the quantitative segment.

Table 5.1. Evaluation Matrix for the Quantitative Segment

	Objective	Activity	Data collection instrument	Measurable outcome-indicator of success
Tier 1	Increase teachers' content knowledge	3-credit SNRPDP course	Pre/post content survey	Paired samples *t*-test shows statistically significant pre- to post-survey gains at the $p < 0.05$ level and normalized gains $\langle g \rangle \geq 50\%$
	Increase teachers' understanding of pedagogy (CEL-TE)	3-credit SNRPDP course	Pre/post survey embedded in the content survey	Paired samples *t*-test shows statistically significant pre- to post-survey gains at the $p < 0.05$ level and normalized gains $\langle g \rangle \geq 50\%$
Tier 2	Effective implementation content and pedagogy	Classroom lesson	Classroom observation	Distinguished or approaching distinguished for a 75% of the observed categories (average of all teachers)
Tier 3	Increased student growth and achievement	Student standardized tests	Nevada Growth Model, CRTs and HSPEs	ANOVA shows statistically significant greater student growth and achievement scores compared to non-RPDP trained teacher classrooms at the $p < 0.05$ level

Abbreviations and symbols: ANOVA = analysis of variance, CEL = *Components of an Effective Lesson,* TE = *Teacher Expectancies*, p = is probability level that the observed result is due to chance ($p < 0.05$ means that there is less than a 5% probability that the observed results are due to chance), $\langle g \rangle$ = average normalized gain ($\langle g \rangle \geq 0.5$ indicates at least a medium gain).

The evaluation method presented in this matrix is for *3-credit classes only*. Additionally, 3-credit courses in the technology education department are not included in this quantitative analysis due to the unique nature of the department's courses. Participants in an SNRPDP technology course may come from any and all content areas. Therefore, providing a meaningful link from the technology courses taught by SNRPDP to student achievement would be extremely difficult and data collection would require an unreasonable amount of resources.

Table 5.2 shows the 3-credit classes that administer pre/post content and pedagogy surveys. Each instructor is responsible for creating her (or his) own pre/post content survey with the criteria that survey data are both meaningful to the instructor for purposes of providing feedback on her (or his) class and to the evaluation to be used in the quantitative analysis.

Table 5.2. Three-credit Courses Included in the Quantitative Segment

Course Title	Content Area	Level
Understanding Common Core State Standards: Writing 9-12	Literacy	HS
My Classroom Project - Teacher Research	Literacy	HS
Algebra for the Classroom Teacher	Mathematics	MS
Problem Solving In Action 6-8	Mathematics	MS
Science for Elementary Teachers (K-2)	Science	ES
Science for Elementary Teachers (3-5)	Science	ES
Life Science for MS Teachers	Science	MS
Physical Science for MS Teachers	Science	MS
Earth Science for MS Teachers	Science	MS
Biology I for HS Teachers	Science	HS
Earth Science for HS Teachers	Science	HS
Physics I for HS Teachers	Science	HS

Overall, the pre/post surveys gauge both participant understanding of the primary class content and CEL-TE pedagogical constructs. Trainers create, evaluate and revise these surveys and assessments prior to each class to reflect current trends in content.

Classes with multiple instructors are using a single pre/post survey. Pre/post surveys are multiple choice, short answer, essay, or a combination of these. Instructors administer the pre-surveys prior to instruction, either before the class meets or on the first class meetings. For surveys administered prior to the first class meeting, online survey providers, Zoomerang™ (http://info.zoomerang.com/) or Google Docs Forms (http://docs.google.com) are used. Some instructors are also using online surveys at the first class meeting, but most first class meeting surveys are traditional pencil and paper formats. Post-surveys are given at the end of instruction, either through traditional pencil and paper or online. Instructors score both the pre/post survey results using answer keys and quantitative rubrics and submit raw scores, pre and post, to the SNRPDP central office one week after the 3-credit class is completed.

To measure changes in participant knowledge of content and pedagogy, normalized gains are being calculated for every pre/post survey and mean pretest and posttest scores are analyzed using a statistical method called repeated measures analysis of variance (ANOVA). Average normalized gain is the percent actual average gain of the maximum possible average gain. This measure was developed by Hake (1998) and is commonly used to compare results between traditional instruction and interactive engagement instruction methods. For example, in comparing traditional instruction and interactive engagement in 62 physics classes throughout the country, Hake found that average normalized gains for traditional instruction were about 23% compared to 48% for interactive engagement. Furthermore, Hake suggest that low gains occur in courses with an average normalized gain

less than 30%, medium gains occur between 30% and 70%, and high gains occur greater than 70%. For SNRPDP's self-evaluation, average normalized gain is computed for all classes and content areas.

Table 5.3 shows the average normalized gain for each level (i.e., elementary, middle, and high) and content area (i.e., literacy, math, and science). As determined using a paired-samples *t*-test for each level and content area, differences between pretest and posttest scores are significantly different. Normalized gains range from 53% to 96%, indicating moderate to high gain for all levels and content areas.

Table 5.3. Average Normalized Pre/Post Content Survey Results

Level and Content Area	Mean Pre Test	Mean Post Test	Normalized Gain	*N*
High School Literacy-English Language Arts	44%	86%	75%	14
Middle School Mathematics	49%	85%	71%	26
High School Mathematics	63%	95%	86%	15
Elementary Science	51%	98%	96%	8
Middle School Science	60%	81%	53%	11
High School Science	69%	90%	68%	20

Note: All posttest scores are significantly different from pretest scores and have less than a 1% probability of being due to chance variations ($p < 0.01$).

Figure 5.1 shows these gains plotted versus pretest scores. Gains from both High School Literacy-English Language Arts, Middle School and High School Mathematics, and Elementary Science met or exceeded the high gain threshold. Middle and High School Science exceeded the moderate gain threshold. This shows an appreciable level of content acquisition and understanding among the teachers taking SNRPDP courses.

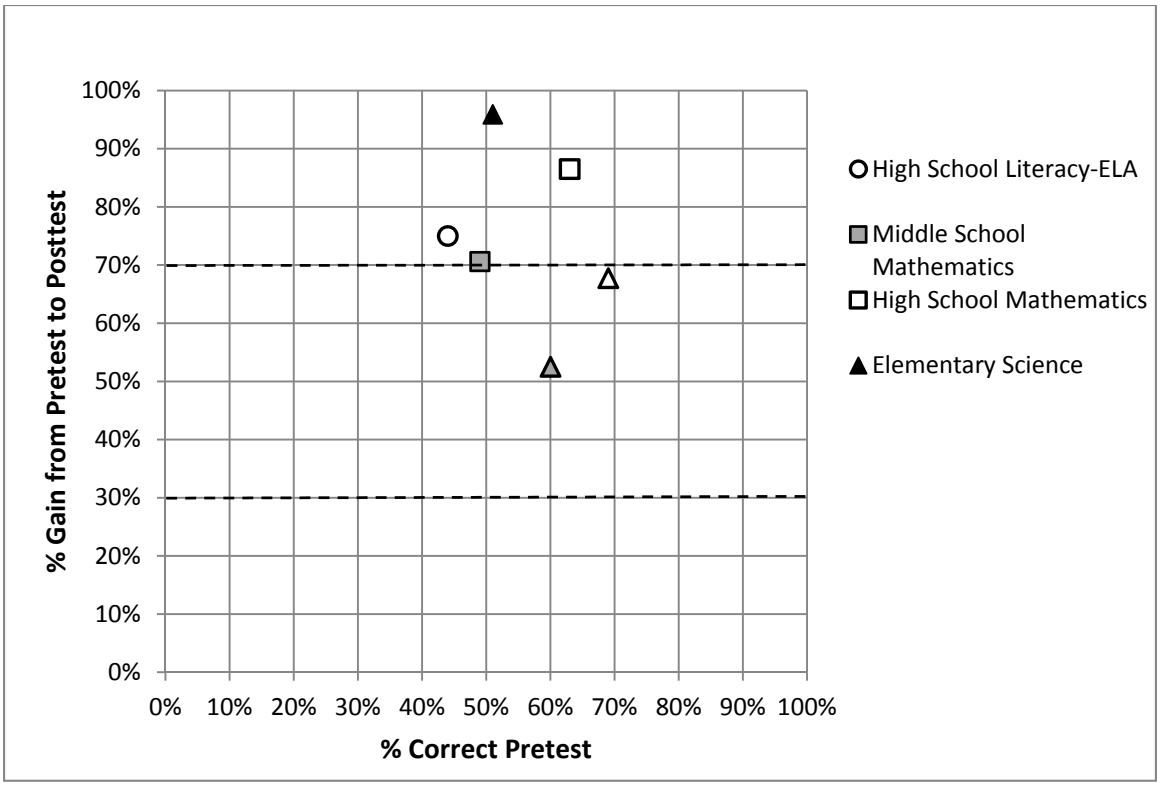


Figure 5.1. Plot of normalized gain versus pretest scores. Values above the dashed line indicate high gains and values above the dash-dot line indicate at least moderate gains (Hake, 1998).

From 2006-2011, SNRPDP had conducted teacher observations as part of Tier 2 of the quantitative segment. In 2011-2012, 2012-2013, and 2013-2014 SNRPDP temporarily suspended observations to reflect on progress made and support Clark County School District as they developed their new School Performance Framework.

In our past observations, SNRPDP has collected data reflecting the level of implementation of the learned content and CEL-TE from participating in our 3-credit courses. SNRPDP trainers conducted classroom observations using standardized observation sheets, which focus on the critical elements of CEL-TE (shown in Table 5.4), including understanding of content and concept linkage.

Table 5.4. List of Critical Observation Elements by Category

Components of an Effective Lesson	Teacher Expectancies
Introduction	Success on Success Model
Daily Review	Student/Teacher Relationships
Daily Objective	Use Simple Examples
Concept/Skill Development	Assessment
Concept Linkage Within Discipline	Student Note-taking
Concept Linkage Outside Discipline	Vocabulary is Stressed
Guided Practice	Reading and Writing
Group Practice	Facts and Procedures
Independent Practice	Technology Implementation
Long-term Memory Review	Problem-solving Strategies
Closure	Memory Aids
Homework Assignment	Questioning Strategies

Implementation of these elements was measured on a four level scale (Level 1 = Approaching Basic, Level 2 = Basic, Level 3 = Approaching Distinguished, and Level 4 = Distinguished). Observers assigned ratings only on elements that are "seen" and/or "heard" in the classroom. If no evidence was provided to give a rating, then that component or expectancy was left blank. Observers also documented what was "seen" and/or "heard" for every rated element. Observations made by SNRPDP trainers were not shared with the classroom teacher's administrator, and therefore, were not intended for personnel evaluation. These observations remain confidential between SNRPDP staff and the classroom teacher.

In order to evaluate if CEL-TE have been implemented, trainers observed participants for an entire lesson in the content area. For example, a typical writing lesson in the elementary classroom last about 45 minutes. A trainer would observe a writing lesson during this entire time to examine introduction, content delivery, guided practice, and review, as appropriate. Trainers provided feedback directly to the teacher as soon as possible after the lesson. If necessary, follow-up observations were conducted, and if warranted, observed teachers were asked to obtain additional professional development at SNRPDP's expense. Standardized observations sheets were delivered to the SNRPDP central office immediately after feedback is given to the teacher.

Over the past five years, SNRPDP trainers observed a random sample of teachers from all 3-credit class participants. From 2007-2011, SNRPDP trainers observed 287 teachers, which is about 20% of the total enrollment in this 3-credit courses. Table 5.5 shows the number of observations by content area and grade level.

Table 5.5. Observation Sample Size by Content Area and Level (2007-2011)

Content Area	Level	Number of Observations
Literacy-ELA	ES	98
Literacy-ELA	MS/HS	7
Math	MS	49
Math	HS	43
Science	ES	19
Science	MS	34
Science	HS	37
	Total	**287**

Data obtained from the standardized observation sheets provided a large variety of information. Figure 5.2 shows the observation measurements by content area and level in a box and whisker plot. Mean scores (shown by the "×" in each box) range from a low of 3.1 (middle school mathematics) to 3.7 (middle/high school literacy-English ELA), indicating an overall "approaching distinguished" rating.

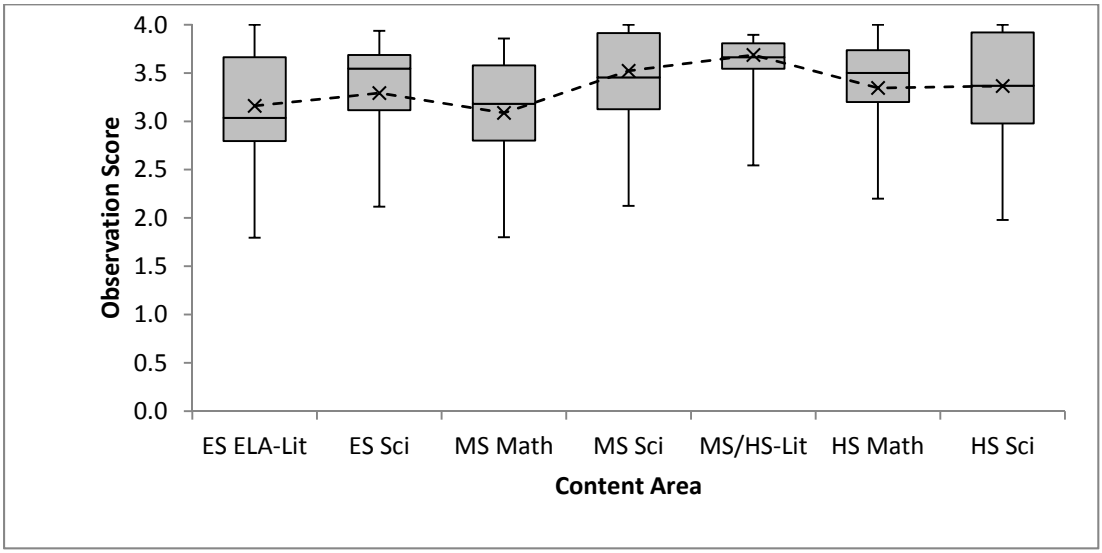


Figure 5.2. A box-whisker plot showing observation trends in each of the content areas and levels for 2006 through 2011. The box shows the range of scores between the 25% and 75th percentile. The solid line shows the median score and the "×" indicates the mean score. The ends of the whiskers show the maximum and minimum overall observation score.

The next set of graphs (Figures 5.3 through 5.6) shows the percentage that each CEL element was observed from 2006-2011. In Figure 5.3, the overall results are shown, where

the elements *introduction*, *daily review*, *daily objective*, *concept development, and guided practice* were observed in 80% or more of the lessons. On the other hand, *concept linkage outside discipline, and homework assignment* was observed in 60% or less of the lessons. Figures 5.4, 5.5, and 5.6 show similar trends when looking at the literacy, mathematics, and science content areas, respectively.

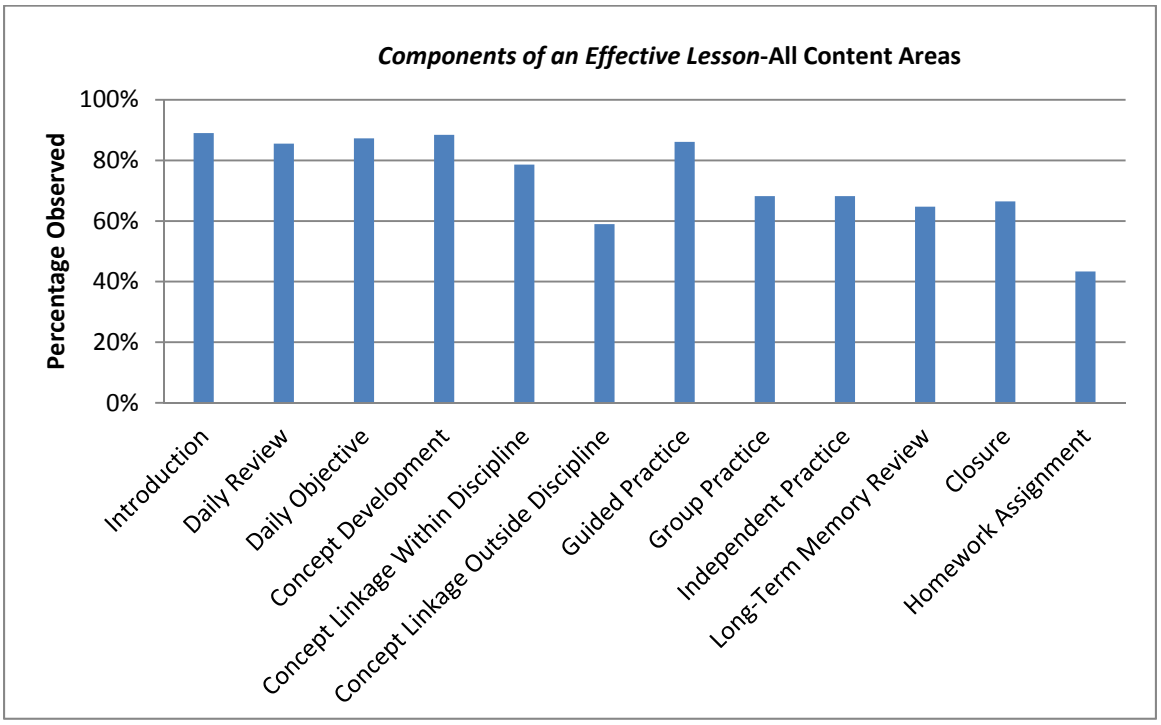


Figure 5.3. Observed *Components of an Effective Lesson*: All Content Areas (2006-2011)

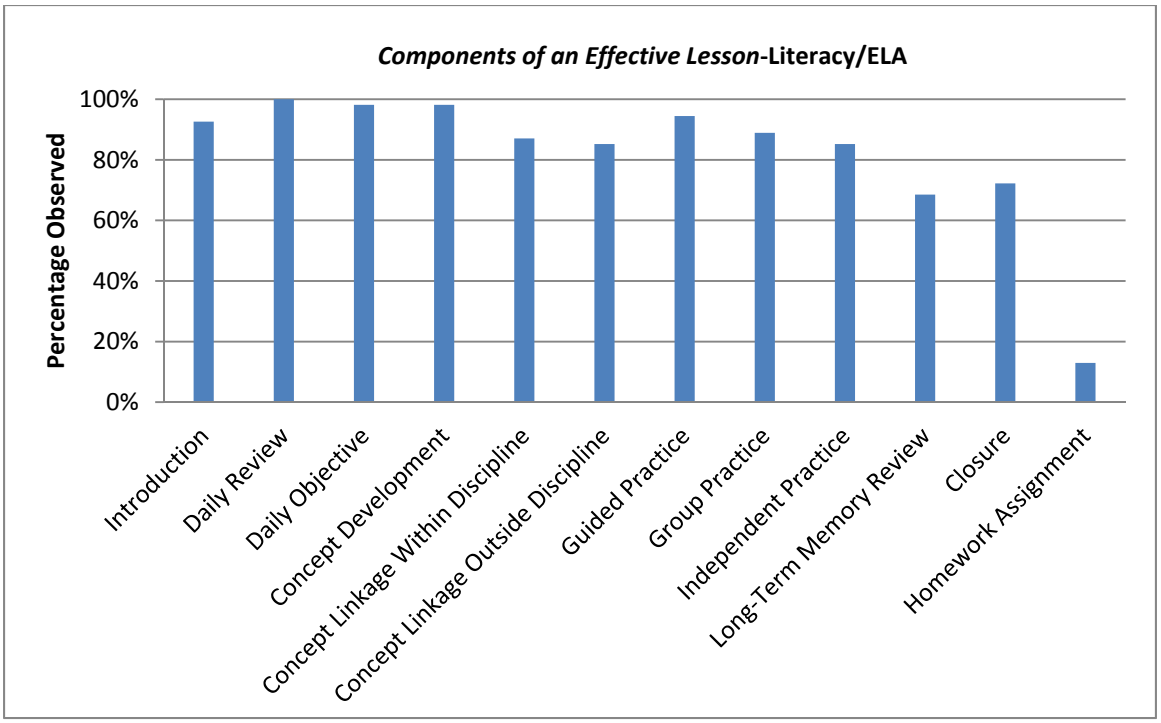


Figure 5.4. Observed *Components of an Effective Lesson*: Literacy and English Language Arts (ELA) (2006-2011)

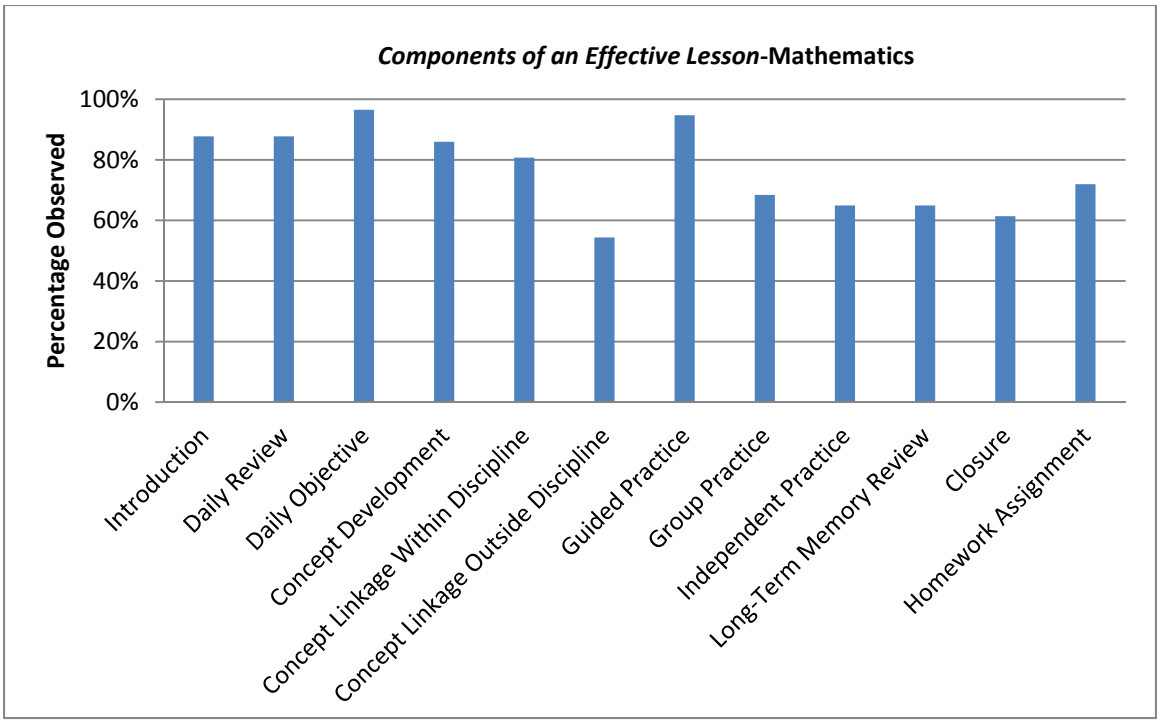


Figure 5.5. Observed *Components of an Effective Lesson*: Mathematics (2006-2011)

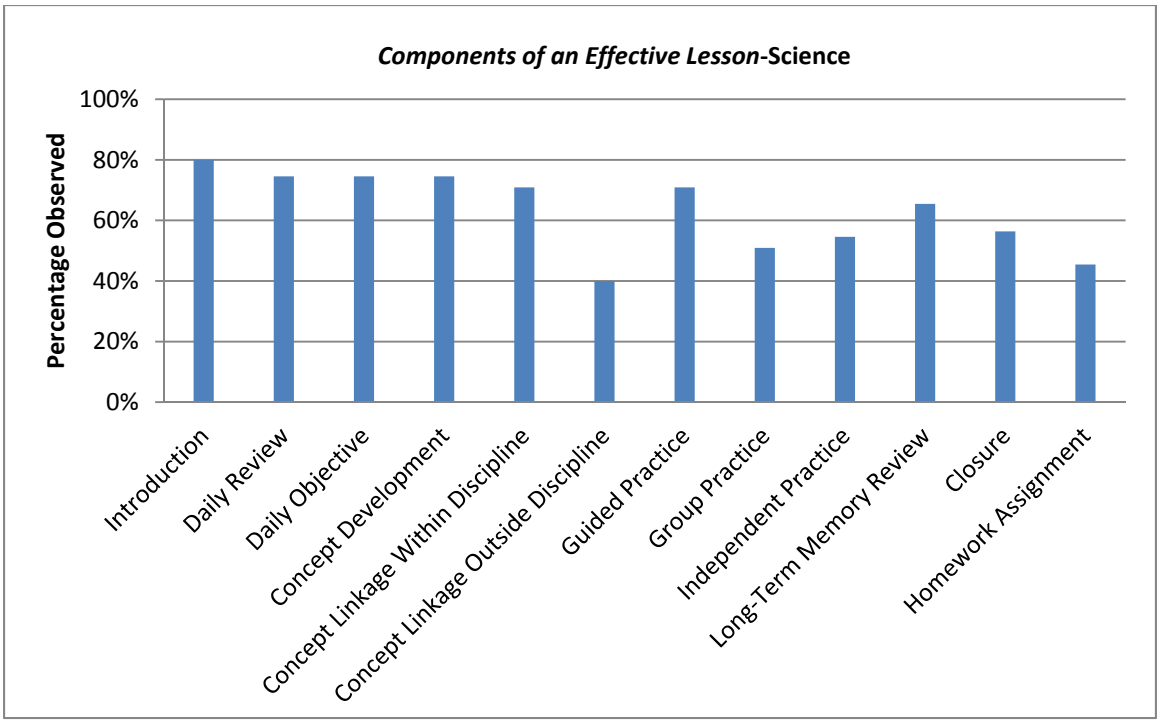


Figure 5.6. Observed *Components of an Effective Lesson*: Science (2006-2011)

Figures 5.7-5.10 shows the percentage that each TE element was observed from 2007-2011. The overall results are shown in Figure 5.7, where the elements *teacher/student relationships*, *use simple examples*, *vocabulary stressed*, and *questioning strategies* were observed in 80% or more of the lessons. The least frequently observed elements (i.e., those observed about 60% of the time or less) include *reading and writing, technology implementation*, *problem-solving strategies*, and *memory aids*. These trends are reflected in the different content areas, as shown in Figures 5.8-5.10.

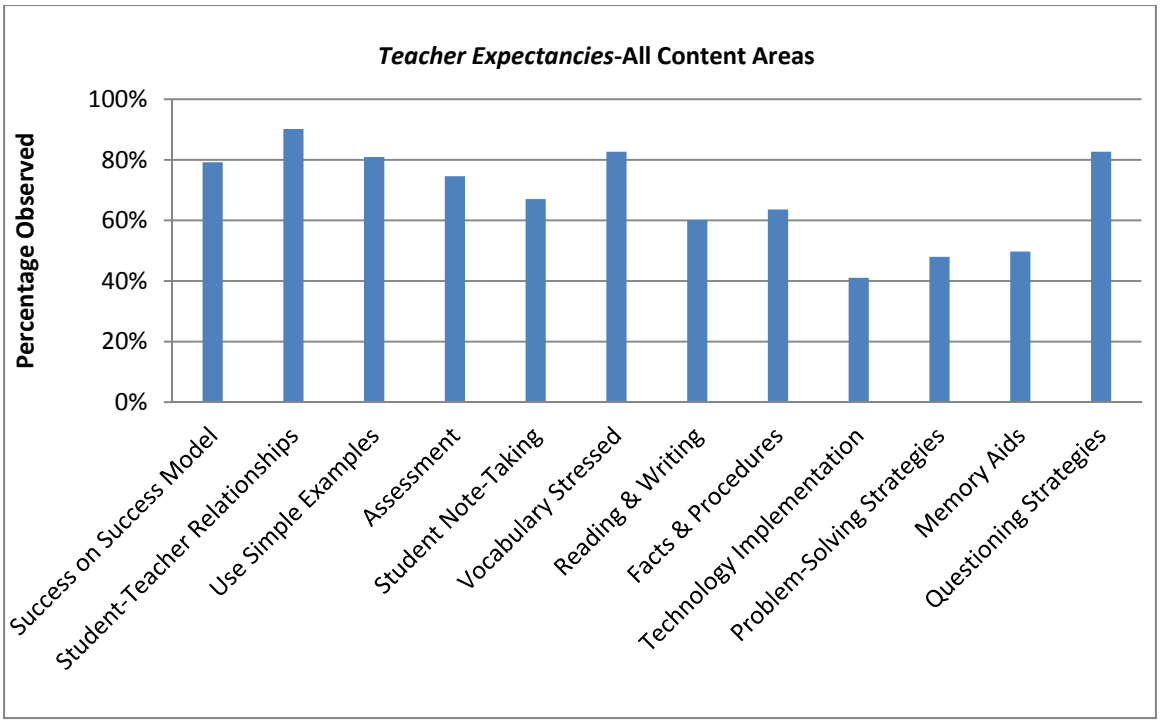


Figure 5.7. Observed *Teacher Expectancies*: All Content Areas (2006-2011)

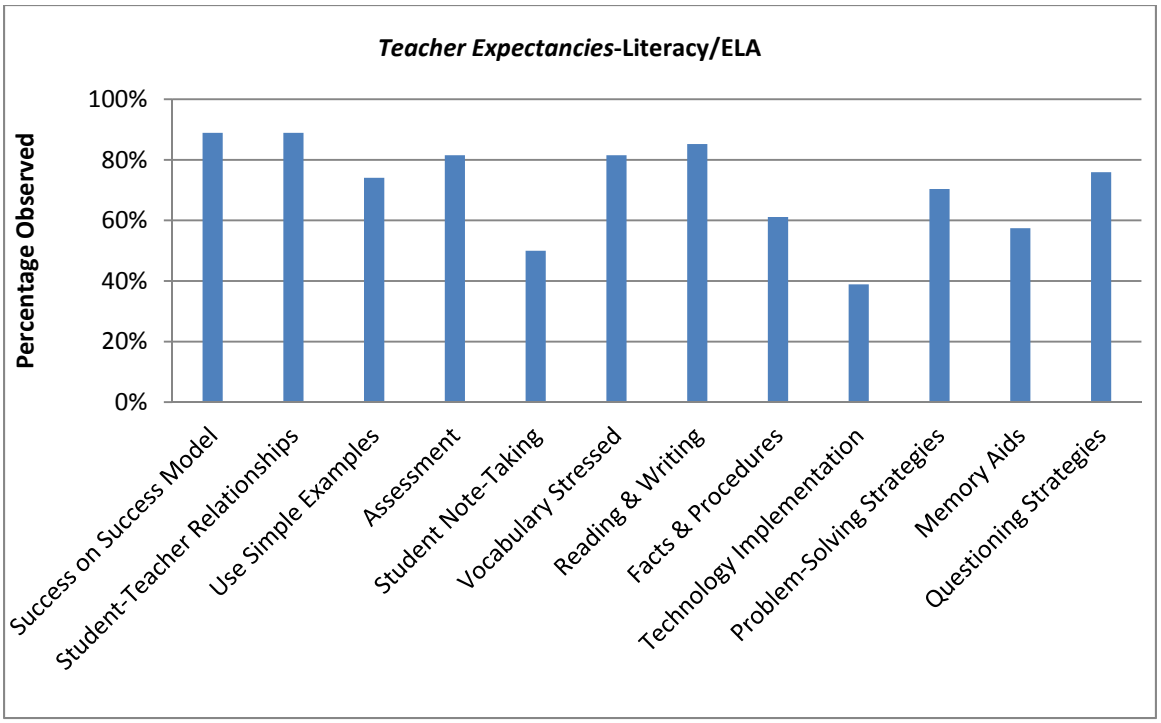


Figure 5.8. Observed *Teacher Expectancies*: Literacy and English-Language Arts (ELA) (2006-2011)

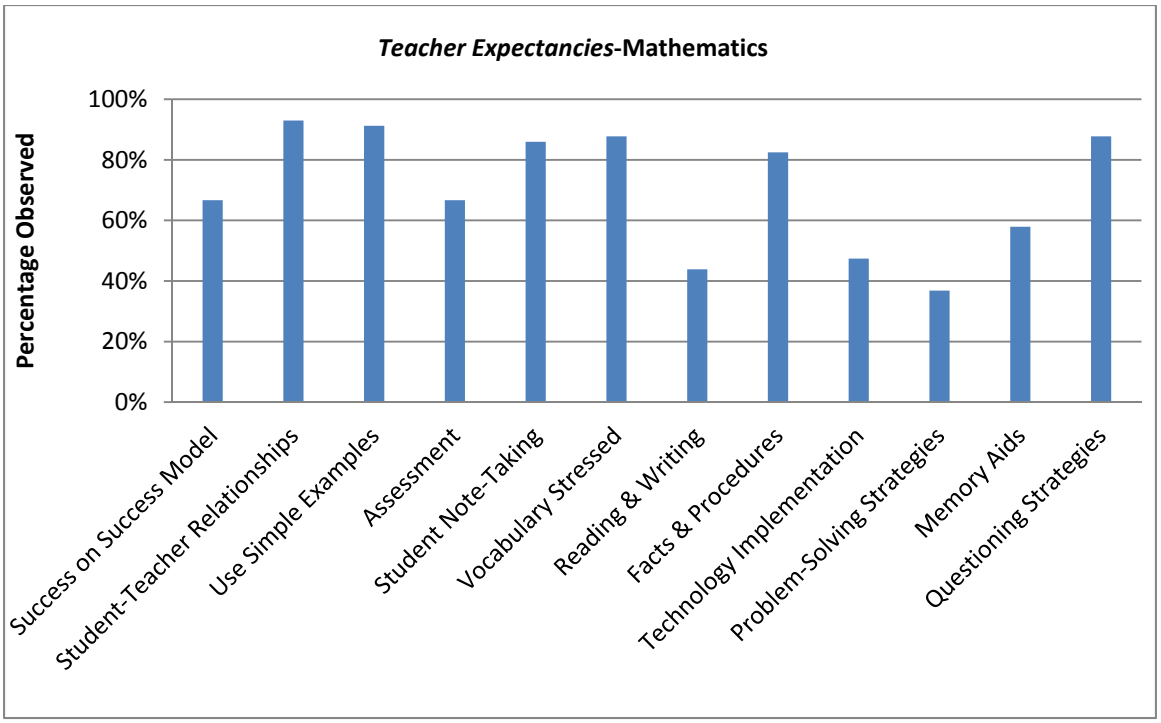


Figure 5.9. Observed *Teacher Expectancies*: Mathematics (2006-2011)

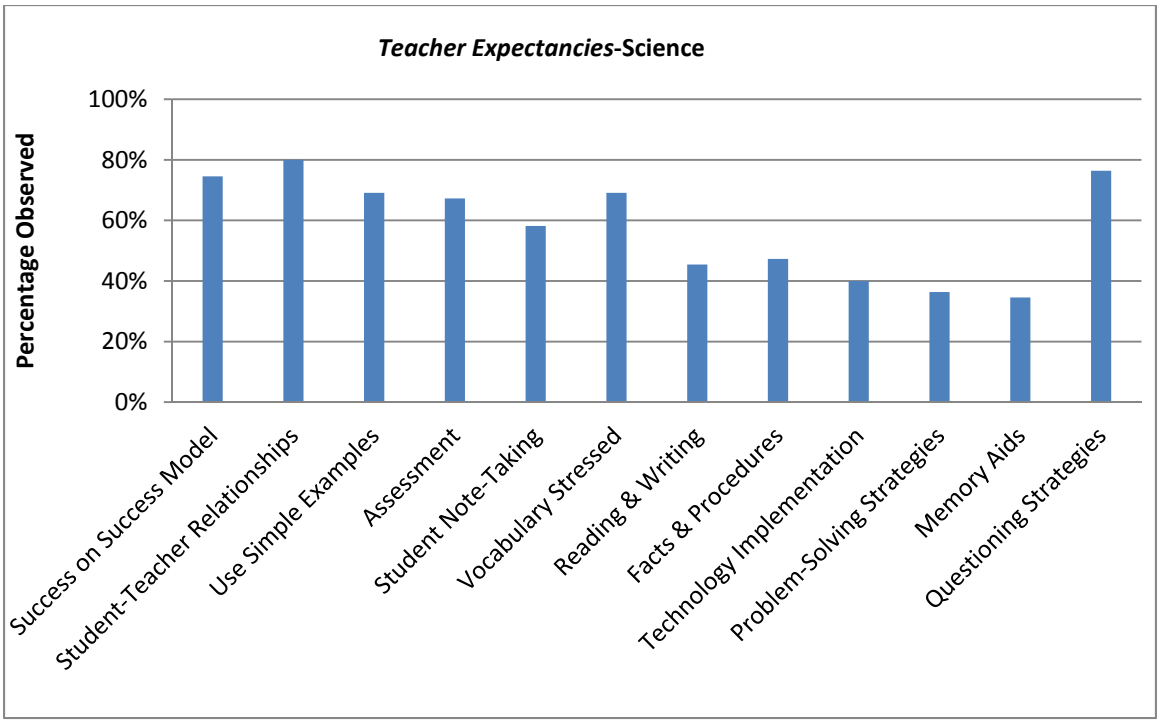


Figure 5.10. Observed *Teacher Expectancies*: Science (2006-2011)

Tier 3 of the quantitative segment examines student growth and achievement using date from the Nevada Growth Model (http://ngma.doe.nv.gov) and Nevada Criterion Referenced Tests (CRTs) and High School Proficiency Exams (HSPEs). Data from the Nevada Growth Model is derived from the CRTs and HSPEs. The Nevada Growth Model only covers reading and mathematics scores: science and writing scores are not included at this time. CRTs are given in reading and mathematics for grades 3-8. HSPEs for reading and mathematics are given in grade 10. The CRT's are generally administered around the end of March or the beginning of April. For most students, HSPEs in mathematics and reading also given around the end of March or beginning of April.

Student growth and achievement scores were compared at the school level, where we compare student achievement of a school that has large numbers of SNRPDP-trained teachers to student achievement from a random sample of schools with little or no SNRPDP-trained teachers. To determine statistical significance, we conducted an analysis of variance (ANOVA) for each of the metrics.

As shown in Table 5.6, student growth and achievement in schools with a high number of SNRPDP-trained teachers is greater for all both mathematics and reading in comparison to schools with a low-number of SNRPDP-trained teachers and the CCSD district average.

Furthermore, schools with a high number of SNRPDP-trained teachers are statistically greater in mathematics growth, mathematics achievement, reading growth, and reading achievement. In educational research, statistically significant differences are generally defined as those that have a 5% or fewer probability of being due to chance ($p \leq .05$). Highly significant differences are those that have 1% or fewer probability of being due to chance ($p \leq .01$).

Table 5.6. Comparison of Student Growth and Achievement Scores for Schools with a *High* Number of SNRPDP-trained Teachers ($N = 30$ schools) to Those with a *Low* Number of SNRPDP-trained teachers ($N = 30$ schools) to the CCSD Average

	Mean
Mathematics Median Growth Percentile	
High Number of SNRPDP-Trained Teachers	57**
Low Number of SNRPDP-Trained Teachers	48
District Average	51
Reading Median Growth Percentile	
A High Number of SNRPDP-Trained Teachers	55**
Low Number of SNRPDP-Trained Teachers	46
District Average	50
Mathematics Achievement (Percent Proficient)	
A High Number of SNRPDP-Trained Teachers	66%*
Low Number of SNRPDP-Trained Teachers	54%
District Average	56%
Reading Achievement (Percent Proficient)	
A High Number of SNRPDP-Trained Teachers	70%**
Low Number of SNRPDP-Trained Teachers	55%
District Average	61%

*Statistically greater, with $p \leq .05$.
**Statistically greater, with $p \leq .01$.
Note. These comparisons are based on 2012-2013 data, which is the latest year available.

The remaining conclusions from this year's analysis are summarized in the very beginning of this section and will not be repeated here. However, as an additional summary, Table 5.7 shows the evaluation matrix with the results.

Table 5.7. Evaluation Matrix for the Quantitative Segment with 2013-2014 Results

	Objective	Activity	Data collection instrument	Measurable outcome-indicator of success	Actual outcome
Tier 1	Increase teachers' content knowledge	3-credit SNRPDP course	Pre/post content survey	Paired samples *t*-test show statistically significant pre- to post-survey gains at the $p < 0.05$ level and normalized gains $\langle g \rangle \geq 50\%$	$\langle g \rangle \geq 50\%$ for all courses, with all *p*-values < 0.05
	Increase teachers' understanding of pedagogy (CEL-TE)	3-credit SNRPDP course	Pre/post survey embedded in the content survey	Paired samples *t*-test show statistically significant pre- to post-survey gains at the $p < 0.05$ level and average normalized gains $\langle g \rangle \geq 50\%$	$\langle g \rangle \geq 50\%$ for all courses, with all *p*-values < 0.05
Tier 2	Effective implement-tation content and pedagogy	Classroom lesson	Classroom observation	Distinguished or approaching distinguished for a 75% of the observed categories (average of all teachers)	Averages were greater than or equal to 3 (approaching distinguished) for all content areas. (Note: for the past three years 2011-2014, SNRPDP has not done full lesson observations to reflect on progress made and support Clark County School District as they developed their new School Performance Framework; however, long-term trends support this conclusion.)
Tier 3	Increased student achievement	Student standard-ized tests	CRTs and HSPEs	ANOVA shows statistically significant greater gain in student growth and achievement scores compared to non-RPDP trained teacher classrooms at the $p < 0.05$ level	Student growth and achievement in mathematics, and student growth achievement in reading, were greater for a high number of RPDP-trained teachers at *p*-values < .05.

Abbreviations and symbols: ANOVA = analysis of variance, CEL = *Components of an Effective Lesson,* TE = *Teacher Expectancies*, *p* = is probability level that the observed result is due to chance ($p < 0.05$ means that there is less than a 5% probability that the observed results are due to chance, $p < 0.01$ means that there is less than a 1% probability that the observed results are due to chance), $\langle g \rangle$ = average normalized gain ($\langle g \rangle \geq 0.5$ indicates at least a medium gain.

5.4 QUALITATIVE ANALYSIS

In 2013-2014, SNRPDP staff collected qualitative data as a means to triangulate the results from the quantitative segment. Trainers spent an appreciable amount of time with teachers, and through this work, gathered reflective case study information. An example of these reflective pieces is included below.

Project-Based Learning: Incorporating the Nevada Academic Content Standards for English Language Arts

In SNRPDP's Understanding the CCSS: Writing 6-12 course, participants engaged in reading and writing activities designed to reinforce content knowledge of strategies for writing and teaching writing with an emphasis on formal argument. Class sessions featured various aspects of literacy as it pertains to writing, and participants actively wrote to demonstrate an understanding of the writing process and modeled strategies. A major part of the class is the completion of a project-based learning unit. The following is an example of a teacher project that one participant developed in 2013-2014.

Reflection

Originally, I enrolled in this class to understand the Common Core State Standards (CCSS) from the writing perspective, I team teach with the reading teacher, therefore, I teach specifically the English. In the beginning, I felt a bit out of place for being the only sixth grade teacher in the class, but eventually became more comfortable during the open discussions. I have a much better understanding of the CCSS. I can use "and/or," not the entire strand, and the writing does not have to be a five-paragraph essay, which was enlightening. But, I am walking away with a wealth of knowledge beyond the writing standards. This new found knowledge includes incorporating the reading standards, practical strategies from Regina, as well as the other members of class that can be implemented today in the classroom. Thank you for the effective teaching strategies, which in turn will benefit the students as proficient writers.

A couple of challenges I encountered while creating this unit were the reading standards and how to incorporate them with specific activities. The reading standards are not as familiar to me in the English class. Another challenge that I predict will be the correlation between the CCSS and the SpringBoard curriculum that I need to include in the lesson plans. SpringBoard does not allow for anything outside its parameters; there is no room for creativity. As a SpringBoard school, I am held accountable for the SpringBoard curriculum that is taught in the classroom. The CCSS writing standards will not be an issue, only the alignment with the SpringBoard curriculum.

On a more positive note recently, I incorporated some of the strategies that were presented during this class in my own classroom, for example the open discussion and short pieces of writing, which both worked well. Integrating both the knowledge and strategies of this class will definitely improve my effectiveness as a middle school English teacher.

Title: Weather **-** The Storm Rolls In and Rain Falls

Grade Level: English 6

Unit Theme: Language and Literature

Essential Questions: How can language be powerful? Is it possible to think without language? What influences a writer to create?

Grade Level: 6 (Amount of time needed for each activity may vary for class periods and age.)

Introduction to the unit: Class discussion: What types of activities do we usually do in our English class? Today we are starting a new unit on "Weather." You are asking yourself, what does weather have to do with English? When we think of weather, our thoughts automatically lean toward science. Weather affects all of us, and has had an effect on our history as well. What do you know about weather? Can you give me any examples of historical weather events? What about the Native Americans and weather? What sort of activities could we do in our English class on weather?

Activity 1: Let's Make Rain

To get our minds working we are going to do a kinesthetic (movement) activity. **Do not tell the students they are going to make the sound of rain.** Everyone stand up, push in your chairs, and face forward. I will put all of you in three groups. We are not going to say anything, just move. I will stand in front of each group and show you a movement that you will do, but do not stop until I show you another movement or show you to stop. Groups may be doing a movement different than your group, but wait until I stand in front of your group to change or stop your movement. Does everyone understand? You will also need to be great listeners during this activity.

1. Show them to rub their hands together back and forth. Stand in front of Group 1, then Group 2, and finally Group 3. When you get to group 3, everyone is doing the same movement.
2. Show them to snap their fingers on both hands at the same time. Stand in front of Group 1, then Group 2, and finally Group 3. When you get to group 3, everyone is doing the same movement.

3. Show them to pat their legs alternating each leg, over and over. Stand in front of Group 1, then Group 2, and finally Group 3. When you get to group 3, everyone is doing the same movement.
4. Now go back and repeat step 2. Show them to snap their fingers on both hands at the same time. Stand in front of Group 1, then Group 2, and finally Group 3. When you get to group 3, everyone is doing the same movement.
5. Now go back to step 1. Show them to rub their hands together back and forth. Stand in front of Group 1, then Group 2, and finally Group 3. When you get to group 3, everyone is doing the same movement.
6. Finally, show them with a hand movement, crossing your arms over each other which demonstrates, stop all movement. Stand in front of Group 1, then Group 2, and finally Group 3. When you get to group 3, everyone is silent and no movement at all.

Have the students sit back down and return to a class discussion regarding the activity. What did they do? What did you hear? Eventually, someone will respond and say "rain." Explain to the class, the rain sound was a progression of rain falling softly to a hard rain, and back again. Then, ask, "What kind of language did we use in the activity?"

This now brings the class discussion to the essential questions. Have these posted largely on a giant sticky note.

First, we have to define, "What is language?" Students look up the word for clarity.

Secondly, put the students in small groups of three or four. Have them discuss the 3 essential questions and record their responses on separate sticky notes for each question and group. Walk around and listen to the students' discussions as a way to monitor that they are working together on the questions.

Thirdly, come back to a whole class discussion with each group giving their response, and attach their sticky notes to the essential questions that are posted. Clarify any questions the students may have on the essential questions.

Finally, have the students write an argument/opinion reflection. The reflection should include how the activity and the 3 essential questions are related, tapping into their prior knowledge to back up of their claim with clear, logical reasoning, and evidence.

Closure/Ticket out the door: Have the students share a couple sentences from their reflection. This is a good strategy to utilize at the end of a lesson. For a homework assignment, the students need to bring in an empty paper towel tube in the next few days. This will be used at the end of the unit.

CCSS: W.6.1.a; S.6.1.c, S.6.2; L.6.1, L.6.2, L.6.3, L.6.5.c; RI.6.2, RI.6.4

Resources: Dictionaries

Activity 2: Research Informational Text:

Introduction: As a whole class, revisit the essential questions and discuss what they learned from the activity yesterday. Then, remind the students that we are still working on the "Weather" unit. Today, we are going to do some research with various non-fiction, informational texts to look up some specific information on storms. "Why might this be important to you?" Have a class discussion.

In small groups, working together, students will collect and record the data in a graphic organizer, "Storm Research" that will be provided. Each member of the group will be responsible for recording the data on their own chart. Be sure to review the graphic organizer with the students for clarification of the topics. Retain the graphic organizer; the recorded information will be used in the next activity.

Closure/Ticket out the door: Students will share their findings with the whole class. This will allow students to add extra information and to reveal any new information that they may have found.

CCSS: W.6.2.a, W.6.2.d; W.6.7; S.6.1.a; L.6.6; RI.6.1; RI.6.3

Resources: Various informational texts on weather from the school library and dictionaries.

Storm Research

Name five different types of storms.	
Where can a storm occur?	
What are the damages from a storm? Name 3.	
When can a storm occur? Name 3.	

If a storm loses any of these it will not be a storm? Name 3.	
What benefits are there? Name 3.	
Give 8 descriptive words of a storm.	
Choose 2 words that can be a title for the project.	

From the research, what new information did you find that was unfamiliar to you? Write in complete sentences.

_____
_____
_____
_____

Activity 3: Storm is coming!

Introduction: As a whole class, review what we have learned for the past two activities. Have the opinions changed on the essential questions that were discussed and presented in the first activity? "What new information did you learn from the research?" Discuss further as needed.

Lower the lighting in the classroom, ask the students to close their eyes, and for the next 3-5 minutes, students will listen (auditory) carefully to sound effects of a storm coming in from the distance. Remind students to be extremely quiet where they won't miss any of the sounds.

Play: Sound Effects
http://www.freesound.org/people/Martin%20Lightning/sounds/16480/

(These sound effects are from a recorded storm and may be unsettling to some students.)

Turn the lights back up, eyes open, and immediately have the students complete a graphic organizer of descriptive words of the storm sounds through the "Senses."

Then, have the students illustrate the visual picture in their mind while their eyes were closed listening to the storm sounds on copy paper. Once this is completed, have students discuss in a small group their descriptive words and their illustrations.

Next, students will use the storm research along with the descriptive words and create a bio-poem in the voice of the storm. Be sure to review "personification" with the students. A discussion on bio-poems will also be presented and demonstrated for the students that may not be familiar with the concept. The bio-poem structure will be varied to satisfy the storm's voice.

Demonstrate a bio-poem with the students. Students will complete their own storm bio-poem. Then revise, edit, and publish the poem using technology (computer.) Poems will be printed on pastel colored paper.

Closure/Ticket out the door: Students will share a piece of their Storm bio-poem with the class.

CCSS: W.6.3.b, W.6.3.d; W.6.4; W.6.6; W.6.2.a; S.6.1.c; L.6.3.b, L.6.5.a, L.6.6; RI.6.3; RI.6.7

Resources: Sound Effects
http://www.freesound.org/people/Martin%20Lightning/sounds/16480/

Senses

Hear	Touch	Taste	See	Smell

Bio Poem

Line 1: One word as the title of the poem. (It must be related to weather.)

Line 2: Four descriptive words (use adjectives)

Line 3: Related to…(name three different types of storms)

Line 4: Lover of…(name three results of a storm)

Line 5: Who feels…(three additional descriptive words)

Line 6: Who needs…(three parts of a storm)

Line 7: Who gives…(three benefits of a storm)

Line 8: Who fears…(three things that would keep a storm from being a storm)

Line 9: Who would like to see…(three additional benefits of a storm)

Line 10: Who lives...(where can a storm occur)

Line 11: One word as a conclusion to the poem. (It must be related to weather.)

Activity 4: "Thunder Cake" by Patricia Polacco

Introduction: Class discussion on the previous activities and how they are related to the essential questions. Do the activities prove your argument on the essential question? Explain how it's proof?

First show the book to the class, and ask, "What do you think the book is about?" Now, read the fictional book, "Thunder Cake" by Patricia Polacco. After a couple of pages have been read, ask the students, "Was your prediction correct?" Just before the end of the book, ask the students, "How do you think the book will end?" Finish reading the book to the students. Ask the students, "Was the ending correct as per your prediction?"

Briefly discuss the two characters.

Complete a character analysis of both the characters, but only one as a whole class. Put the students in partners to complete the other character analysis using the questions provided. Then, come back to the whole group to compare and contrast the two characters with a Venn diagram drawn on a giant post-it. Have student volunteers come up and write their responses on the appropriate side of the diagram for each of the characters.

Finally, be sure to discuss the relationship this grandmother had with her granddaughter.

Ask "Who do you identify or have made a connection with?" Is it the wise grandmother or the grandchild who needs to overcome her fear of storms? Students will write a reflection on which of the characters they identify with and explain their connection to that of the character. Students will revise, edit, and publish their reflections on the computer.

Closure/Ticket out the door: Students will share 2-3 sentences of their reflection. Students will be provided with the Thunder Cake recipe from the book, "Thunder Cake" by Patricia Polacco to further their individual connection to the book.

CCSS: W.6.3.a, W.6.3.b; W.6.4; W.6.9.a; S.6.1.c; L.6.1, L.6.2, L.6.6; RL.6.6, RL.6.7

Resources: Polacco, Patrica. *Thunder Cake*. Paperstar. The Putnam & Grosset Group, 1990.

Character Analysis Questions

1. Who are the characters? What words does the author use to show you who they are?
2. What are the characters' strengths? Any weaknesses? What words does the author use?
3. How does the main character treat other characters? Did the author include any evidence to show you?
4. Do the characters go through any changes in the story? What evidence does the author use?
5. Do the characters show any feelings? How does the author show you these feelings?

My Grandma's Thunder Cake

by Patricia Polacco

Cream together, one at a time

1 cup shortening

1 ¾ cup sugar

1 teaspoon vanilla

3 eggs, separated

(Blend yolks in. Beat whites until they are stiff, then fold in.)

1 cup cold water

⅓ cup pureed tomatoes

Sift together

2 ½ cups cake flour

½ cup dry cocoa

1 ½ teaspoon baking soda

1 teaspoon salt

Mix the dry mixture into the creamy mixture.

Bake in two greased and floured 8 ½ inch round cake pans at 350º for 35 to 40 minutes.

Frost with chocolate butter frosting. Top with strawberries.

Resource:

Polacco, Patrica. *Thunder Cake*. Paperstar. The Putnam & Grosset Group, 1990.

Activity 5: Native American Rain Stick

Introduction: Have a class discussion on the essential questions. Throughout this weather unit thus far, who can tell me how we have shown or proven that language is powerful? Can we think without language? Explain. What types of influences plays an important role in a writer's creativity?

Today, we are going to wrap up our weather unit by reading and discussing a short article, "Legend Behind the Indian Rain Stick." How did the author convey his message?

Now, we will create our own rain stick. I will pass out the empty paper towel tubes that you brought in at the beginning of the weather unit. Supplies will be provided for the rain stick project.

Supplies: Empty paper towel tube; small headed nails; duct or masking tape; glue; rice, small beans, lentils, or aquarium gravel (any small item can be used, but use a variety of sizes); ¼ measuring cup; thin card stock; various items for decorating: construction paper, scrapes of material, tissue paper, and markers (any type of supplies can be used, depends on what you have on hand or have students bring); and of course, student creativity.

Directions: 1) Push in 15-20 small nails (I inch or 3 cm works well) randomly into the tube (tubes vary in diameter as well, just make sure the nails won't go through the other side of the tube.) 2) Take small pieces of duct tape and place over the nail heads. 3) Cut round circled shapes from the card stock larger than the tube to cover the ends. 4) Place one circle on one end of the tube and carefully mold it down and around the tube, then use duct or masking tape to hold it place. **This process will be done again on the other end of the tube after the next step.** 5) Measure ¼ cup mixture of the rice, beans, and lentils, and pour into the open end of the tube. 6) Repeat step 4 on the open end of the tube. 7) Using the art supplies, students will decorate the tubes, accessing their creativity. 8) Completely clean up the work area.

Writing: The completed rain sticks are setting on the desks in front of the students drying from the glue. Now, have the students explain how they created their own individual rain sticks. Remind them, every detail needs to be in the piece of writing for them to share with others in order for someone else to make a rain stick. Students will partner with another student for revise and edit prior to publishing the explanatory of the rain stick instructions.

Closure: Students will display their work on the desks, and take a gallery walk to view everyone's hard work throughout the unit. Each student will have sticky notes and write one positive comment for the other students during the gallery walk. Give students time at the end of class to share anything that they would like to comment on for the unit or a specific activity.

CCSS: W.6.2.b, W.6.2.d; W.6.3.b; L.6.3.a; RI.6.3; RI6.7

Resources: http://www.ehow.com/info-tip_8137827_legend-behind-indian-rain-stick.html

Legend Behind the Indian Rain Stick

By Mark Bingaman, eHow Contributor

Rain sticks historically have been utilized by indigenous people living in dry, desert climates across the globe. Often employed in religious ceremonies, the purpose is to draw life-sustaining hydration from the heavens.

Legend

- The legend behind the Indian rain stick points to supernatural intervention; the hope is to mimic the soft splash of raindrops in an effort to remind the "spirits" or "Great Spirit" that the people of Earth have need for a drenching rain for their crops, animals and thirst.

Construction

- Native American cultures in the southwest of North America built their rain sticks from hollowed-out, dried cactus tubes, pushing cactus needles into the core to form an obstruction. Small pebbles were then placed inside and the ends of the cactus tube sealed. Flipping over the stick simulated the sound of a gentle shower of rain.

Modern Uses

- The rain stick remains in use today in Native American culture and is present for both sale and use at powwows and other tribal gatherings. It has also been adopted by non-indigenous cultures and is often utilized as a soothing tool for meditation and music production.

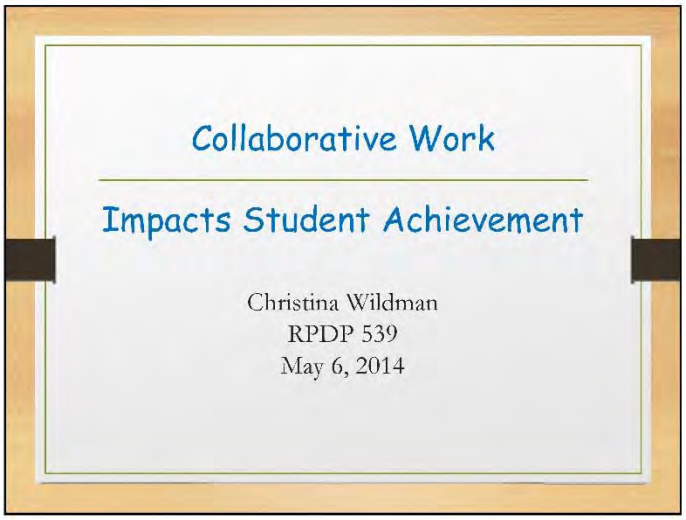
http://www.ehow.com/info-tip_8137827_legend-behind-indian-rain-stick.html

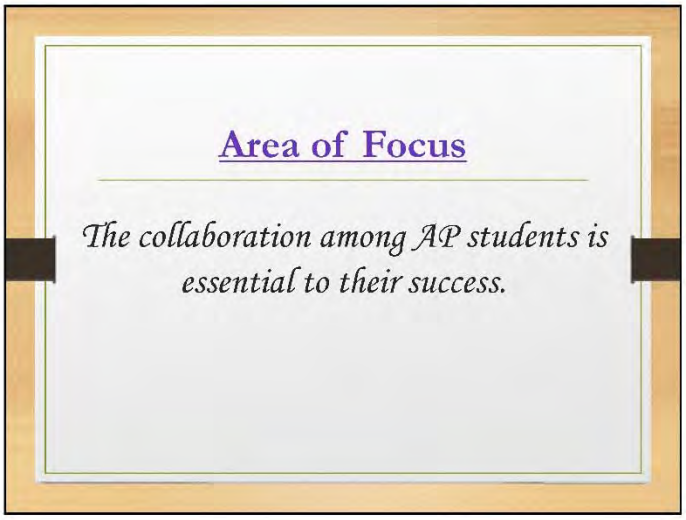
Steven Caney's Ultimate Building Book; Steven Caney, Lauren House; Running Press Kids; October 29, 2006

Suggested Variations or Extensions: Write a poem as a shape poem, giving students various spring like shapes: umbrellas, flowers, or birds to create a spring theme in the classroom. Have students use their illustration from the mind visual of the storm audio as a technical piece of writing, giving specific, step by step instructions for someone else to create the picture. There are so many ideas that could go with this unit or activities can be varied for older or younger students. Be creative!

Teacher Action Research

In SNRPDP's action research class, participating teachers design and implement a research project in their classrooms. This class has the benefit of increasing both teacher knowledge and understanding of best educational practices, and student achievement. The following is an example of a teacher action research project that one participant presented in 2013-2014.


Collaborative Work
Impacts Student Achievement
Christina Wildman
RPDP 539
May 6, 2014


Area of Focus
The collaboration among AP students is essential to their success.

Research Question

Does collaborative work impact student achievement in AP classes?

Sub Questions

How is achievement measured?

What types of collaboration are used?

How can teachers insure that students are working cohesively to complete assignments?

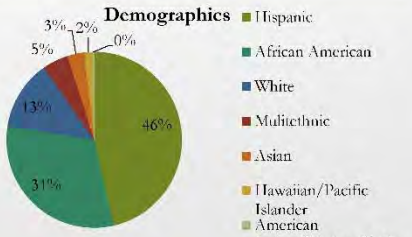
How do we teach students the significance of responsibility to others learning development?

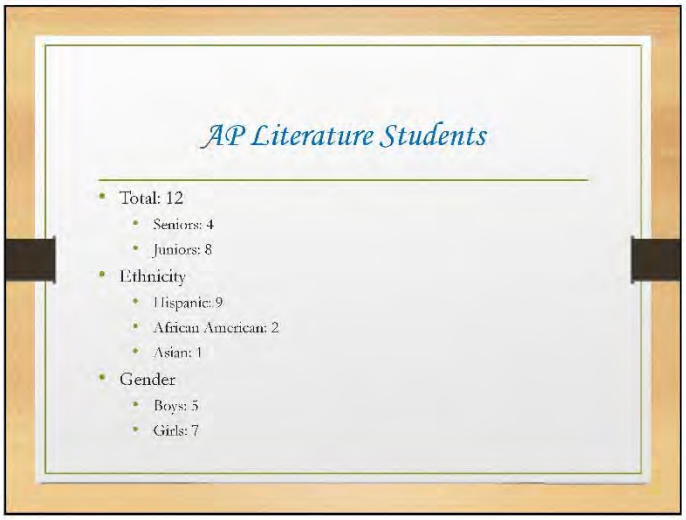
Can teachers impact students work ethic and follow through of collaborative learning?

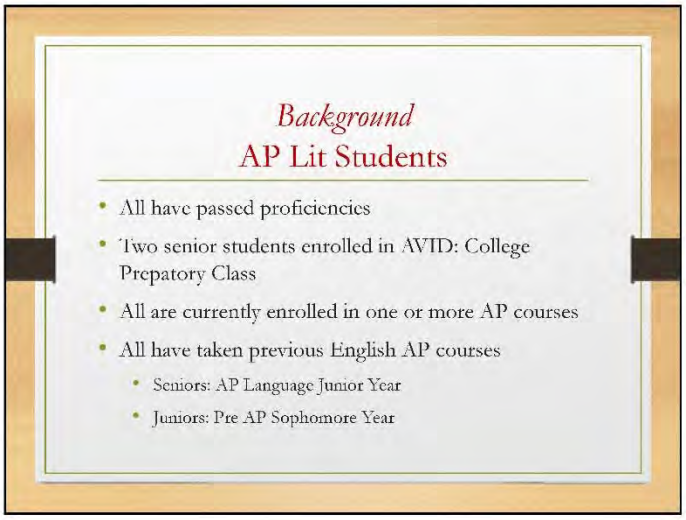
Mojave High School
2013-2014

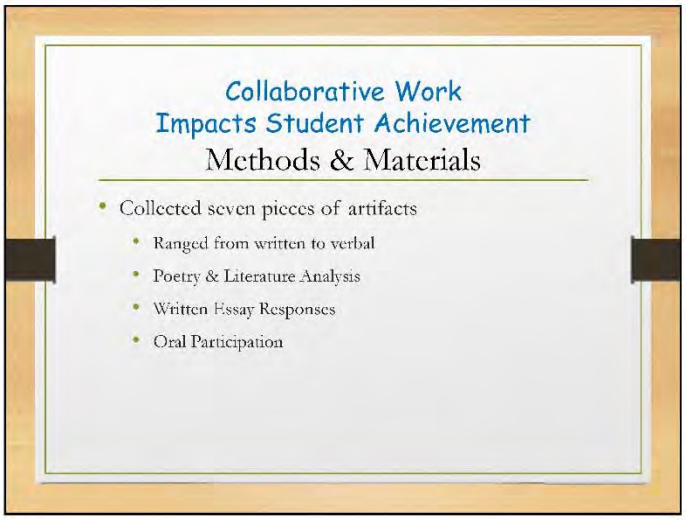
- North Las Vegas, Nevada
- Population: 2128
- Turnaround Year: 3
- Minority is Majority
  Hispanic & African American

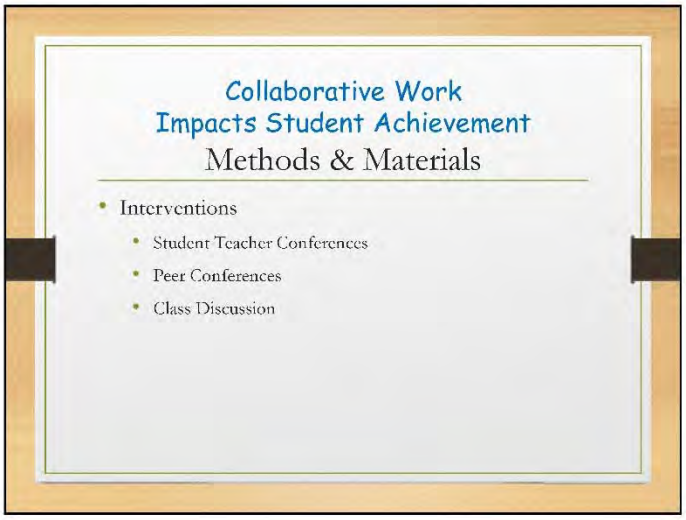
Mojave High School
2013-2014




AP Literature Students
Total: 12
Seniors: 4
Juniors: 8
Ethnicity
Hispanic: 9
African American: 2
Asian: 1
Gender
Boys: 5
Girls: 7


Background
AP Lit Students
All have passed proficiencies
Two senior students enrolled in AVID: College Prepatory Class
All are currently enrolled in one or more AP courses
All have taken previous English AP courses
Seniors: AP Language Junior Year
Juniors: Pre AP Sophomore Year


Collaborative Work
Impacts Student Achievement
Methods & Materials
Collected seven pieces of artifacts
Ranged from written to verbal
Poetry & Literature Analysis
Written Essay Responses
Oral Participation


Collaborative Work
Impacts Student Achievement
Methods & Materials
Interventions
Student Teacher Conferences
Peer Conferences
Class Discussion

Collaborative Work Impacts Student Achievement

Methods & Materials

- Surveys: 3
  - 12 AP Students

Given after each Unit (3)

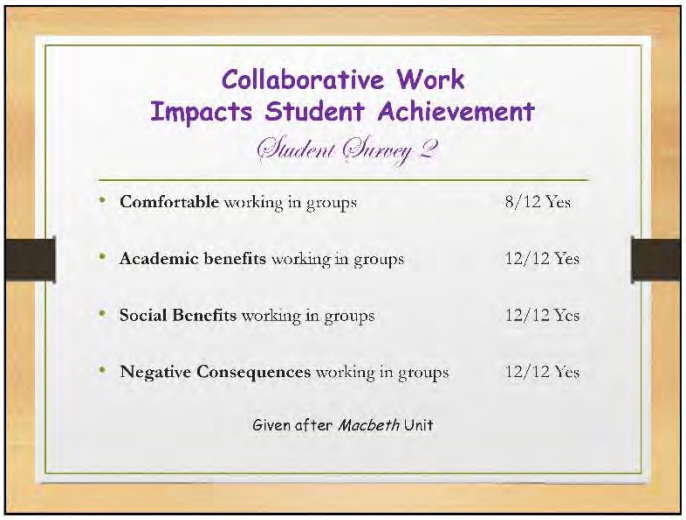
Used the Evidence & Responses to help develop future units

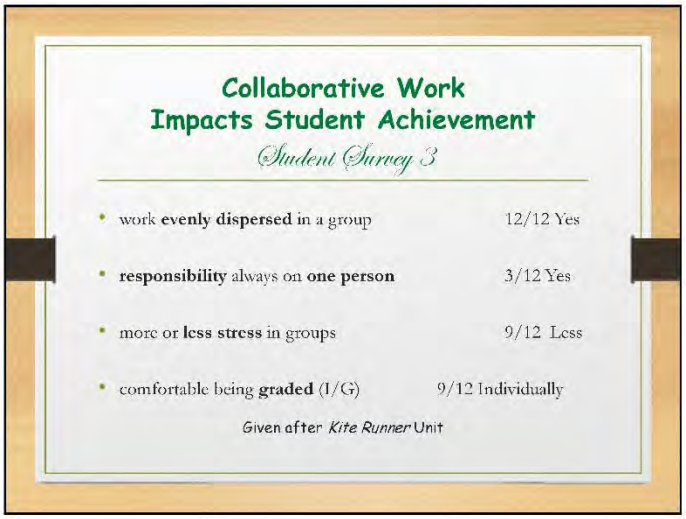
Collaborative Work Impacts Student Achievement

Student Survey 1

• **work** individually or in **groups**	8/12
• **work** productively in **groups**	10/12 Yes
• gain **more knowledge** of a subject	11/12 Yes
• collaborative discussion helps **motivate**	10/12 Yes
• **peers impact** on your learning	12/12 Yes
• **work ethic** effected in collaborative groups	11/12 Yes

Given after Poetry Unit


Collaborative Work
Impacts Student Achievement
Student Survey 2
Comfortable working in groups 8/12 Yes
Academic benefits working in groups 12/12 Yes
Social Benefits working in groups 12/12 Yes
Negative Consequences working in groups 12/12 Yes
Given after Macbeth Unit


Collaborative Work
Impacts Student Achievement
Student Survey 3
work evenly dispersed in a group 12/12 Yes
responsibility always on one person 3/12 Yes
more or less stress in groups 9/12 Less
comfortable being graded (I/G) 9/12 Individually
Given after Kite Runner Unit

Collaborative Work Impacts Student Achievement

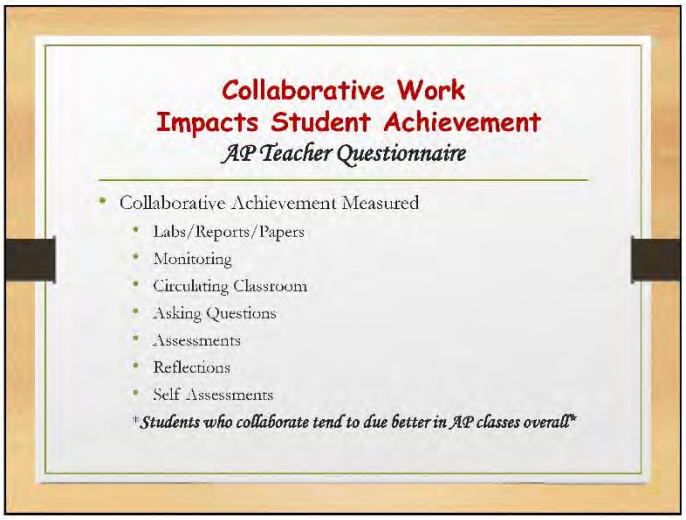
AP Teacher Questionnaire

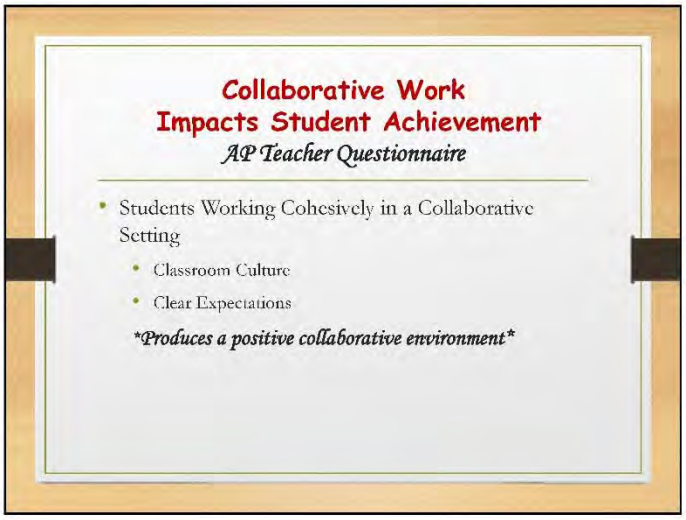
- Questionnaire: 1
  - 8 AP Teachers:
    - 1 English
    - 3 Social Studies
    - 2 Math
    - 2 Science

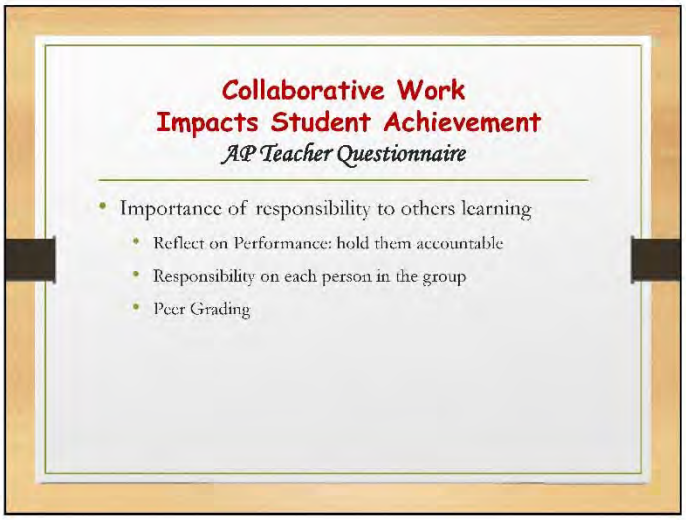
Collaborative Work Impacts Student Achievement

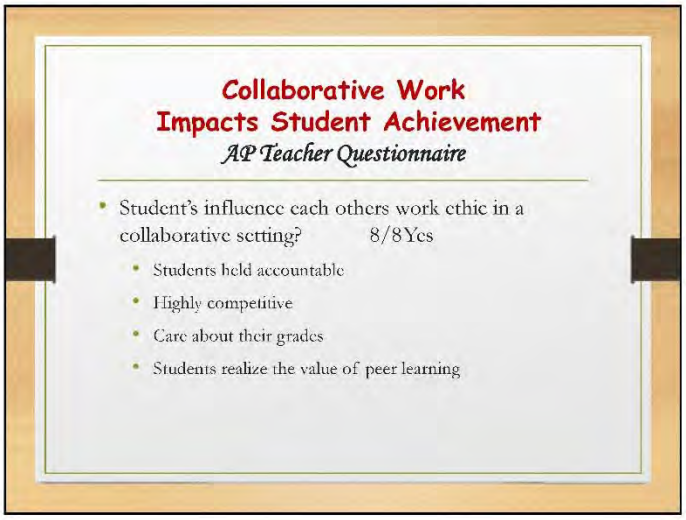
AP Teacher Questionnaire

- Collaboration Methods Used 8/8 Yes
- Types of Collaboration
  - Partners/Groups
  - Pair Share
  - Peer Teaching
  - Analyze & Synthesize
  - Problem Solving


Collaborative Work
Impacts Student Achievement
AP Teacher Questionnaire
Collaborative Achievement Measured
Labs/Reports/Papers
Monitoring
Circulating Classroom
Asking Questions
Assessments
Reflections
Self Assessments
Students who collaborate tend to due better in AP classes overall


Collaborative Work
Impacts Student Achievement
AP Teacher Questionnaire
Students Working Cohesively in a Collaborative Setting
Classroom Culture
Clear Expectations
Produces a positive collaborative environment


Collaborative Work
Impacts Student Achievement
AP Teacher Questionnaire
Importance of responsibility to others learning
Reflect on Performance: hold them accountable
Responsibility on each person in the group
Peer Grading

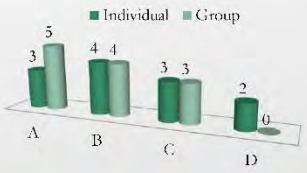

Collaborative Work
Impacts Student Achievement
AP Teacher Questionnaire
Student's influence each others work ethic in a collaborative setting? 8/8 Yes
Students held accountable
Highly competitive
Care about their grades
Students realize the value of peer learning

Data Collection & Samples

- 9 Week Span
- 3 Units
  - Poetry
  - *Macbeth*
  - *Kite Runner*
- 7 Assessments:
  - Approximately every 1.5 Weeks
- Individual & Groups

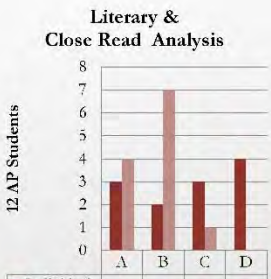
Poetry Unit

Brief Poetry Frame
(Students Taught Each Other)



Macbeth

*Collaborative Assessments:
Student Achievement Rising*



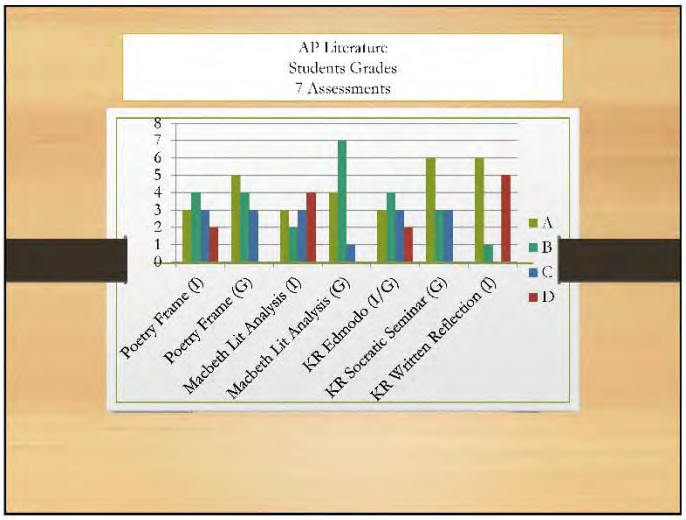
	A	B	C	D
Individual: Literary	3	2	3	4
Group: Close Read	4	7	1	0

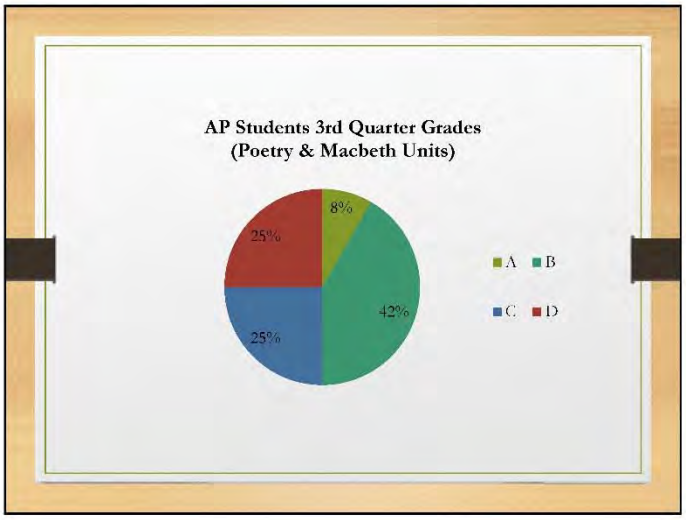
Kite Runner

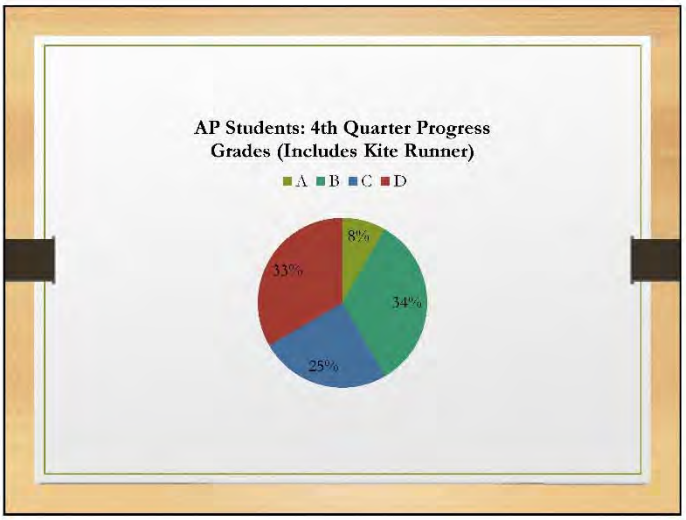
(Spring Break Required Reading)

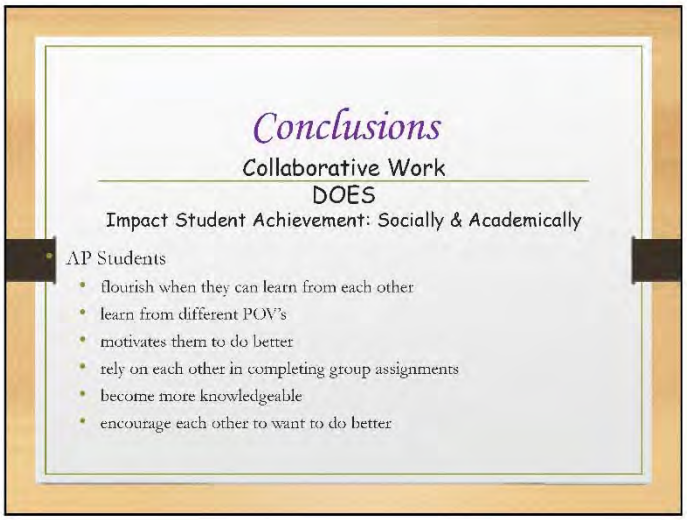
- Collaborative Assessments
  - Edmodo A=3 B=4 C=3 D=2
  - Socratic Seminar A=6 B=3 C=3 D=0
  - Reflection (I) A=6 B=1 C=0 D=5

individual grades given but relied on peers input


AP Literature
Students Grades
7 Assessments
8
7
6
5
4
3
2
1
0
A
B
C
D
Poetry Frame (I)
Poetry Frame (G)
Macbeth Lit Analysis (I)
Macbeth Lit Analysis (G)
KR Edmodo (I/G)
KR Socratic Seminar (G)
KR Written Reflection (I)


AP Students 3rd Quarter Grades
(Poetry & Macbeth Units)
8%
42%
25%
25%
A
B
C
D


AP Students: 4th Quarter Progress Grades (Includes Kite Runner)
A B C D
8%
34%
25%
33%


Conclusions
Collaborative Work
DOES
Impact Student Achievement: Socially & Academically
AP Students
flourish when they can learn from each other
learn from different POV's
motivates them to do better
rely on each other in completing group assignments
become more knowledgeable
encourage each other to want to do better

"Next Steps"

- As a teacher, I will
  - Continue to meets the needs of my AP students
  - Continue to give collaborative assignments
  - Encourage other teachers to assign more collaborative work in their respectable classes
  - Continue this research on next years AP students and begin a compare and contrast aspect

Works Cited

- 12 AP Students. Mojave High School. North Las Vegas, NV 89084.
- 8 AP Teachers. Mojave High School. North Las Vegas, NV 89084.

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APPENDICES

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APPENDIX A: SAMPLE NEWSLETTER

Literacy Connects

*A Content Literacy Newsletter from Regional Professional Development Program-**Issue LVII***

Understanding the NEPF Series-Standard 4

Standard 4: Students Engage in Metacognitive Activity to Increase Understanding of and Responsibility for Their Own Learning

- **Indicator 1**: Teacher and all students understand what students are learning, why they are learning it, and how they will know if they have learned it
- **Indicator 2:** Teacher structures opportunities for self-monitored learning for all students
- **Indicator 3**: Teacher supports all students to take actions based on the students' own self-monitoring processes

Metacognition, thinking about our own thinking, is a foundational cognitive process that is essential for creating independent learners. Metacognition impacts learning in numerous ways. Research has shown that students who monitor their own thinking and take action based on that knowledge are more successful learners than their peers. They understand the "how" of a task, allowing them to process more deeply, think more critically, and create more meaningful and lasting connections. Metacognition also impacts internal motivation (see *Literacy Connects XLI – XLIII* for more on internal motivation) and creates a sense of self-efficacy in the learner. Students who identify and work towards personally challenging and valued learning goals, while understanding their own strengths and weaknesses, spend more time working on a given task and exert more effort when confronted with a complex task. This type of self-regulated learning also includes the ability to respond to feedback and more successfully cope with new situations.

Metacognition has two components: **Metacognitive knowledge** and **metacognitive regulation**. Metacognitive knowledge is understanding what factors impact performance, including knowledge about oneself as a learner. For example, a student uses metacognitive knowledge when she/he annotates text during reading as a way to stay active and engaged in the reading process. Metacognitive regulation is the actual monitoring of one's own thinking. This promotes awareness of one's own strength and weaknesses and the ability to take responsive action based on this understanding. Setting, revisiting and revising learning goals is requires metacognitive regulation

The following activities will help build students' metacognitive knowledge:

THINK-ALOUDS—Modeling the reading process to teach active reading

When you think aloud—verbalize YOUR thinking process—during a mini-lesson, an oral reading, or problem solving exercise, you are offering students strategies that can enhance their comprehension and self-monitoring abilities. During a reading think-aloud, you are modeling for your class how a reader approaches and understands text. To think aloud, readers pause periodically, think about and verbalize what they remember, understand, and visualize, while integrating the name of the reading strategies they are using. In this way, students actually experience what occurs behind the invisible veil of active reading. Repeated use of this strategy will help students internalize and integrate effective comprehension strategies into their own reading.

Procedure:

1. Explain that thinking aloud means that you say what is going on in your mind as you read and try to understand what you are reading.

2. Before you begin reading, list the strategies you will use while you read:
    - Predicting—What will the reading be about? What do I know about this topic? Why am I reading this piece? What do I need to learn from this passage? What will I do with this information once I've finished? How should I read this (closely, skimming…)?
    - Pre-viewing text—scan headings, subheadings, words in bold/italics, graphs, pictures, etc. Make predictions based on the preview.
    - Picturing—What do I see when I visualize what the author is saying?
    - Making connections—What do I know about this? How does this topic relate to me/to my experiences? This is like…this reminds me of…I remember when…
    - Fixing problems—I need to reread this. I don't know this word, let me see if can use context clues? If I look at the root/prefix/suffix, can I figure this word out? I don't understand this part, maybe I should read on and see if that helps.
    - Summarizing—I understand now, this means…; putting this in my own words…; let me repeat that sentence….
3. Present your demonstration while the students read along with you. For the first few sessions, I proceed slowly, dramatizing each strategy for emphasis. As the students become more accustomed to this activity, you can have them keep track of the strategies you use; this will allow you move more quickly through the text.
4. Spend time discussing the activity. Explain the strategies you used, why you used them, and how they helped you comprehend the passage. Allow time for the students to ask questions and to share their own reading problems and strategies.
5. After students have several opportunities to listen to you model think-alouds and to identify the strategies you use, have them practice think-alouds with a partner. One student should read a paragraph, while the other student plays the part of "the brain," stopping the reader to think aloud. They summarize and discuss the paragraph and then switch roles.
6. Reserve some time for you and your students to continue practicing thinking aloud with any new strategies you introduce or when teaching problem solving.

Literacy Connects

*A Content Literacy Newsletter from Regional Professional Development Program-**Issue LVII***

Understanding the NEPF Series-Standard 4

Scaffolded Reading Experience--Building a purpose for reading

Reminding students of the importance of the reading process and modeling reading using the "Think Aloud" will allow students to see and hear how a strong reader makes sense of difficult text (See *Literacy Connects #1* for The Think Aloud). The Scaffolded Reading Experience (SRE) is a strategy that uses all parts of the reading process, works well as a "Think Aloud" and is flexible enough to be used in all subject areas, with all levels of readers (Graves & Graves, 1994).

Scaffolding refers to the degree of support a teacher must provide to enable students to read more difficult texts. Initially, struggling readers will require a high level of support and more able students less. Before using SRE, consider the needs of your students, the difficulty of the text and the purpose for the assigned reading. This will determine how much scaffolding you will need to provide for your class.

1. **Pre-reading Stage:** In order to build background knowledge before students begin reading, either show a picture that relates to the theme of the reading or have students browse the chapter of their text noting illustrations, graphs and/or headings. Have students work in pairs to answer these questions: What does this picture(s) remind you of? Judging from the illustrations and captions, what do you think this chapter/reading is about? or What do you know about this topic? These questions will trigger students' prior knowledge and help build interest. Next, help students "fill in the blanks" by giving a brief overview of what will be presented in the text. Use only general, non-specific information that requires further investigation by the students to build connections between their prior knowledge and the information they will be reading. Model this step by showing students how you preview and predict content before reading. At this point, you can also identify and explain difficult vocabulary words in the text to support comprehension.

2. **During Reading Stage:** Develop broad, open-ended study guide questions to support student reading of the text. Refer back to your initial planning stage and write questions that match the learning/reading needs and interests of your students and the purpose you set for the reading. Ask yourself questions like: What do my students need to know about this chapter? What do they already know? How can I help them connect prior knowledge to new learning? How can I pique their interest in this material? Students can complete this in pairs or individually (see *Literacy Connect #13* for peer reading ideas). As the year progresses, you can pose fewer questions as students become more proficient readers.

3. **Post Reading Stage:** Once students have finished the reading, help them process and connect to what they have learned through critical response to the text. They can write summaries (See *Literacy Connects #5* for summarizing) or choose from a selection of assignments. Following are a few creative ways to motivate student response: Creating posters that answer questions from the study guide, using a list of stems from Bloom's Taxonomy to create questions for other classmates

to answer, writing from the perspective of someone or something in the text (see *Literacy Connects #7* for R.A.F.T.) or creating a Podcast or PowerPoint.

Reflective Learning

Countless studies have shown that metacognition (thinking about your own thinking) and reflection increase learning in all areas. When we make a mistake, two executive systems in the brain's frontal region react, helping us to correct the mistake. When we see, correct and reflect upon our own errors, we learn (Sousa, 2001; Stuphom, et al. 2000; McDonald, et al. 2000). Reflection should occur at all points in the learning process. Making predictions and creating questions at the beginning of a chapter, lesson or unit, provide the scaffold for self-assessment and reflection during and after learning. In our haste to cover curriculum, we often focus only on the end result. Shifting focus so students reflect on the how and why of learning will enable them to transfer skills learned in one situation to other areas (remember the old adage about teaching a man to fish?). Following are strategies designed to promote metacognition before, during and after learning.

Question Swap: A question swap can help focus the learner and create reading with a purpose, as well as provide the basis for reflection after the reading or lesson (see *Literacy Connect Issues I, IV, XVII, XVIII* and *XXI* for more on generating questions):

1. Students create and write 2 questions about the given topic on a half sheet of paper.
2. They need to know the answer to their own questions.
3. For the first question, they find a partner and swap questions.
4. They answer their partner's first question and include their name.
5. They then repeat Steps 3 and 4 with a second partner for the second question.
6. At the end of the unit or lesson, students reflect upon the questions and answers. What did they get right? Wrong? Why? Have them explain their thinking.

Journals, Learning Logs or Exit Summaries: These forms of informal writing are excellent for promoting metacognition. Following are sample journal starters (see *Literacy Connects XI* and *XII* for more on reflective writing):

- I understand …. but I don't understand …. because ….
- When I don't understand how to solve a problem, I ….
- To solve this problem, I had to….
- If I did this again, I would….
- What part did you struggle with?
- What changes did you make and why?
- How did your thinking change?
- Today my thinking is like … because ….
- What did you do well?

- With what do you need help?
- What was easiest for you? Hardest?
- Which strategies work best for you when reading...?

Portfolios help students, teachers and parents monitor learning. Have students return to their portfolios periodically and reflect on the work represented there. Ask them to choose examples of their best work, work they are most proud of, or work that shows the most growth and have them justify their choices.

Teacher Reflection: End of the year surveys, as well as reflections and portfolios, provide rich data to assess learning, monitor growth, and reveal student attitudes and motivation towards that learning. Instructional changes based on these factors are often more relevant and useful than other more formal types of data.

Process and Discovery Activities for Writing

1. Turn on a tape recorder while you write, and talk out loud about what you're doing. Don't worry about talking in complete sentences. Just talk to yourself, the way you probably do talk without realizing it. "Let's see...mmm...I wonder if...perhaps I'd better go back...no, I guess I'll keep going on this draft...I've got to start this stronger, maybe use a better verb...does that make sense? I need to stop worrying about this part and just get something down...." After you've finished, listen to the tape as you read your draft, then make notes on what you're doing so that you can discover how you write. Share with a classmate or two.

2. Find a painter, composer, scientist, engineer, play director, journalist, or potter—some kind of creative person who will let you observe them while they work, so that you can see another process and discover its relationship to the writing process. Write a short essay comparing and contrasting their process with the writing process.

3. Think back on a skill that you know, and describe it in process terms. Then see if you can translate that skill—taking photographs, cooking, making a dress, repairing a motorcycle—into writing terms to see if it makes sense to take the tricks of one skill and use them in another.

4. Start a process log or daybook, picking out a notebook that feels comfortable to you and is the right size so that you can have it with you almost all the time. Doodle in it, write in it, record dialogue and favorite quotes, paste things in it, put down observations and thoughts, ideas and drafts for titles, leads, endings, middles. Make outlines and diagrams. Talk to yourself, think to yourself, find out what you are seeing, hearing, feeling, thinking and what it means.

5. Draw a picture of your writing process to see what it reveals of how you work when the writing goes well. Draw another picture of your writing when you are stuck and can't produce. Get another

classmate to do the same and compare. List the stages in the writing process that are necessary for you.

Interactive Lectures

A lecture is an activity in which the teacher presents information and knowledge orally through a series of organized and structured explanations. Lectures can be both formal and informal. Formal lectures allow for very limited student interaction. Interactive lectures increase student retention of information by 20 percent over formal lectures.

In contrast to other instructional/cognitive strategies, lectures generally involve the least amount of student involvement. However, there are some ways to vary the lecture approach to make the process more beneficial for the students.

1. **Feedback Lecture:** Provide students with a reading and outline of the lecture notes in advance. Lecture for 10 minutes, and then divide students into study groups (2 to 4 in a group) for 20 minutes. During this time, students should be discussing a high level question related to the material. Reconvene for another 10-minute lecture and address the study questions in your comments.

2. **Guided Lecture:** Provide students with a list of objectives for the lecture. Have them put down their pencils and listen carefully to the lecture for 20 minutes. At the end of the 20- minute lecture, give students 5 minutes to write all the information they can recall individually. Next, involve them in small discussion groups (pairs also work well) to reconstruct the lecture using their notes. Help students fill in the missing information as a class.

3. **Responsive Lecture:** Devote one class period a week to answering open-ended, high level, student generated questions on any aspect of your topic or unit of study. All topics have to be presented as questions; students must specify why they think their question submission is important; the class orders the questions in terms of class interest; and, the lecturer answers as many of the questions as time allows.

4. **Demonstration Lecture:** During the lecture, take time to stop and demonstrate an application to illustrate selected principles of your lecture content. Pose a series of "What would happen if…." "What do you think caused….." type of questions.

5. **Pair/Share Lecture:** Deliver a 20- minute lecture and have students take notes. Every 5 to 10 minutes, pause during the lecture, and give students no more than 2 minutes to share their notes with a partner and fill in any missing information.

6. **Think/Write/Discuss Lecture:** Prepare a set of 3 related high-level questions to ask students throughout the lecture.

a. Give the first question (a motivational question that helps set the stage) before the lecture and have students write a 2-minute response.

b. During the middle of the lecture, pose another question to clarify the information being given. Ask students to write a short response; share some of the questions aloud.

c. At the end of the lecture, ask a reflective question that encourages connections and applications.

Journals

Journals, or learning logs, are among the most worthwhile types of reflective writing. When used purposefully, with instructional objectives in mind, journals allow students to think on paper, thus promoting the development of ideas and content knowledge. Journal writing enhances creativity and organization skills, while developing critical thinking skills through the interpretation and synthesis of the ideas presented. Journal entries are informal and can be used flexibly in all subjects. They can be collected and read or simply acknowledged as completed; they can focus solely on thought process or can be revised and developed into more formal writing assignments. Journal writing is easy to implement; students need only a notebook and 5-10 minutes, several days a week to write.

Following is a list of possible ways to use journals in your classroom:

To initiate learning—to introduce a topic, build background, access prior knowledge
- ✓ Thematic or relevant quote/pivotal quote from text
- ✓ Key concept: "What do you know about…?"
- ✓ Picture: "What is this?" "Describe what you see?"
- ✓ Music

To record thought
- ✓ Notes: "What questions do you have about…?"
- ✓ Reflections: "What do you think about…?" "I wonder…." "What if…?"
- ✓ Summaries: "I learned…"; current events, reading, class activities…
- ✓ Observations/inferences: "What do you see? What does it mean?"

Explore the thought process
- ✓ "How do you solve…?"
- ✓ "Describe the steps…"
- ✓ Where did your thinking go wrong?
- ✓ What will you do differently next time?

Reflect
- ✓ Self-discovery: "How does this relate to you?"
- ✓ Meta-cognition
- ✓ How do you feel about….
- ✓ What would you do if….

Play with thought & language—create, fantasize, imagine

- ✓ Stories
- ✓ Poetry
- ✓ Quotes
- ✓ Art
- ✓ Music

Pre-write & pre-read

- ✓ Explore ideas—who, what, when, where, why, and how?
- ✓ What do you know?
- ✓ What will this be about?
- ✓ Predict outcomes

Writing to Learn for Processing and Reflection

Exit statements or "Ticket out the Door"
This is an ideal summarizer and closure activity for times when there are only a few minutes at the end of the class. Students write something brief related to that day's lesson. Ticket Out the Door allows students to reflect on, connect to, and/or summarize what they have learned; it allows the teacher to assess to what extend students have achieved the lesson's outcome. This activity works well for vocabulary review, as well.

Examples:

- Name one (two, three) important thing(s) you learned in class today.
- Write one question about today's content—something that left you puzzled.
- Read this problem and tell me what you will do first.
- How can you use what you learned today in _____?
- Give me at least one reason why _____.
- How does what you learned today connect to _____?
- Write your own word using the prefix/suffix/root of the week.
- What made learning easy or hard for you today?
- How will you/I know when you have mastered this concept?
- What predictions do you have for tonight's/tomorrow's reading?

Question: Think-Write-Share: The teacher poses a question, the students think for about 1 minute about the question, the student writes a 1 sentence response to the question, and the student shares the response with a classmate. The teacher has three or four students share their response.

Carousel Brainstorming: In small groups students brainstorm ideas on a given topic. They write their thoughts on posted chart paper for a given amount of time. Once their time is up, they rotate clockwise and read what another group has written and add their thoughts. This continues until all the topics have been explored or students have had a chance to read and respond to all the responses from all the groups.

Quick-Draws: Select a "big idea" or major concept within your lesson. Ask students to reflect on the meaning of the concept and crate a visual image that represent that concept (about 3 minutes). Have student share and explain their image with a partner, in a small group (Numbered Heads), or in a Chalkboard Splash.

Chalkboard Splash: This is a variation of the Pair-Share, Quick-Write or Quick-Draw. Once students have recorded their individual thoughts, have them write their responses (or group responses) randomly on the whiteboard or chart/butcher paper. After recording their responses, ask students to create a 3-column chart with the headings: similarities, differences, and surprises. Students read and analyze the other responses and record what they noticed under the columns. Students then get into small groups and share what they noticed. Have groups share with the whole class.

Similes: Create similes using some of the topics you are studying. Ask students to formulate an explanation for how the simile might be true. Ask students to share with their partners, in small groups, or in a Chalkboard Splash their responses. After similes have been modeled a few times, ask students to create their own similes based on the topics they are learning. Always ask them to explain their thinking.

Ranking: Select items, concepts, steps, events, descriptive paragraphs, or other relevant content information that can be analyzed and ranked within you unit or lesson. Ask students to rank them according to specified criteria. Ask them to provide justification for the way they chose to rank the concepts.

Ensuring Higher-Order Thinking

- Always ask students to explain why and justify or defend their thinking
- Use open questions: In what ways…How might things be different if….Why is this important….How does this relate to our lives? So what? Why is this important?
- Use a word bank to ensure that academic vocabulary is used.

The following activities will help promote metacognitive regulation in students:

Reflective Research Log

To facilitate the research process, students can keep a research log. Divide a loose-leaf notebook into six sections. The sections should contain the following information:

- **A working bibliography.** Each potential source is entered in complete bibliographic form and briefly annotated.
- **Notes and quotes.** This section takes the place of the old note cards and is keyed to section one. This is where you take notes and record important quotes from your sources.
- **Working outline.** Because it is virtually impossible to outline anything until you know what you want to say, this is a tentative outline that may change weekly as new ideas and materials surface.

- **Flashes of brilliance**. This is an ideas section where you record your thoughts, reflections, and comments about your topic.
- **Weekly summary**. Each week, you should log time spent on reading, writing, looking, and thinking. Be ready to discuss your summary with me at any time.
- **The rough draft.** Ideally a rough draft grows over time. In this section, write parts of the rough draft whenever you are ready. Sometimes the ending comes first; sometimes you are ready to write one section before others. I encourage you to read and write DURING the research phase and to record your thoughts.

Post Exam Reflection

This activity is designed to give you a chance to reflect on your exam performance and, more importantly, on the effectiveness of your exam preparation. Please be candid in your responses, so they will be valuable to you and to me. Your responses are being collected to improve teaching and learning in this course. They will have no impact on your grade, but you will receive credit for thoughtful reflection.

1. After studying for this exam, how many points (out of 100) did you expect to earn?
2. After completing the exam, how many points (out of 100) did you think you had earned?
3. How many points did you receive?
4. Approximately, how many hours did you spend studying for this exam?
5. Did you study enough?
6. Could you have studied "smarter"?

What percentage of your test-preparation time was spent in each of these activities (total should be 100%).

1. Reading textbook sections for the first time
2. Re-reading textbook sections
3. Answering end-of-section questions
4. Reviewing knowledge survey questions
5. Reviewing your own notes
6. Reviewing handouts
7. Discussing course materials and questions with classmates
8. Study the relationships among concepts and ideas

Carefully look over your exam and estimate the percentage of points you lost to each of the following (total should be 100%).

1. From careless mistakes
2. From not being familiar with terms
3. From not knowing facts

4. From not understanding concepts
5. From not being able to apply concepts in new contexts
6. From not seeing connections between concepts or facts
7. From other reasons (please specify):

Based on your responses to the questions above, describe at least three things that you plan to do differently in preparing for the next exam. For instance, will you spend more time studying, change a specific study habit, or try a new one? Please describe.

Final Question: What can I do to help support your learning and your preparation for the next exam?

Goal Setting

An essential instructional strategy, effective even with students who claim to not be particularly interested in the content being presented, is getting them involved in goal-setting. Students who set their own goals are "more attentive to instruction, expend greater effort, and increase their confidence when they see themselves making progress" (Dembo & Eaton, 2000). Planning goes hand-in-hand with goal setting, and it's important to help students set thoughtful and strategic plans to carry out their goals.

- **Students Set Goals**--Help students set both long and short term learning goals that are both challenging and realistic: For example, for each unit, make it common practice for students to identify the long-term goal they hope to accomplish by the end of the unit. For many students, this will likely center around getting a good grade on an exam, paper, or other project—and that's OK, but you should also encourage students to set goals that don't focus solely on grades.
- Then ask students to break their long-term goal into several short-term, manageable goals so that they can more easily monitor and track their progress toward their bigger goal. For example, students might set short-term goals related to studying: how much time they will devote to studying each week and how they will go about doing that.
- **Students Monitor and Record Progress**--Provide specific strategies students can use to meet their goals and have students monitor the strategies they use and reflect on their effectiveness.
- Students can and should set goals for a variety of activities. For example, before collaborative learning opportunities, ask students to set group and individual behavior goals and group product goals and outline ways to achieve those goals. Afterwards, ask student to reflect on those goals and modify, if necessary. Actively participating in the planning, carrying out, and discussion of and reflection on work within the group can increase students' engagement in the classroom and increase the productivity of collaborative group work.
- **Students Reflect on Progress**--Use question stems to help students reflect on their performance:
  - My goal was _____, and was/was not obtained because _____.
  - I have learned _____ and/or obtained the grade of _____because ____.
  - The strategy I used was effective/ineffective because _____.
  - To continue to improve, I need to change/modify _____ because _____.

Literacy Connects

*A Content Literacy Newsletter from Regional Professional Development Program-**Issue LVII***

Understanding the NEPF Series-Standard 4

Encouraging Positive Self-Talk

Students' self-efficacy and confidence in themselves and their ability to learn something new or complete a task greatly influence their motivation. When students are confident in their abilities and, most importantly, view errors as an informative part of learning something new, they are significantly more likely to persist in their attempts to complete a challenging task.

- Model positive self-talk: When working through a problem or difficult text, use the think aloud to model how the teacher, as a successful learner, deals with difficulties and uses trial and error to navigate problems. For example, "Now, this part looks complicated, but I'm sure we can figure it out.", or "Let's try and see if this will work."
- Focus feedback on processes, not outcomes. Verbal and written feedback should concentrate not on outcomes but on students' selection and use of learning processes and strategies. Doing this focuses students on what they can do to improve their work and gives them a sense of control over their academic success.
- Model the use of learning strategies while thinking aloud, so students are aware of the cognitive processes going on "behind the scene."
- During guided practice, monitor students' use of learning strategies and provide specific feedback.
- Once the task is completed, ask student to reflect on the strategies they used, whether or not they were effective, and why.
- Use the "bits-and-pieces approach" to make a large task less overwhelming and more manageable. Have students break work into numerous small sections and complete only small pieces at a time. This is an effective way to differentiate complete reading assignments. Rather than assigning a less complex piece to struggling readers, assign a smaller more manageable chunk.

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APPENDIX B: PARTICIPANT LETTER

Memorandum of Agreement

First Name _____ Last Name _____

RPDP Student ID[†] _____

School _____

Date _____

As a participant in a SNRPDP course, I agree to the following:

A. I will implement the *Components of an Effective Lesson* and *Teacher Expectancies* in my classroom.
B. I will allow SNRPDP personnel to observe my classroom instruction.
C. I will meet with SNRPDP personnel for a post-observation conference.
D. I will allow SNRPDP personnel to review my student assessments.
E. I will allow SNRPDP personnel to see statistical breakdowns of my student assessments.
F. If needed, I will attend further professional development, which the SNRPDP will compensate at $22/hour.
G. Per CCSD Regulation 26-23, I understand that if I "do not receive a minimum overall grade of 'B' in" this course, that I will have to "repeat the course until the minimum grade is achieved" to receive my Advanced Studies Certification. If I need to retake this course because I received lower than a "B," then I understand that RPDP will cover university and RPDP fees for retaking this course.

Please note that the SNRPDP does not evaluate classroom teachers and the information garnered by classroom observations and other discussions is confidential between SNRPDP and the classroom teacher.

Signed _____

[†] The ID is the comprised of the student's three initials (use "X" if there student has no middle initial) and the student's six digit birth date (modyyr), all together. For example, Daisy E. Duck, born on November 27, 1983, would have the following student ID: DED112783.

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North Las Vegas, NV 89030
(702) 799-3828
FAX (702) 799-3821

Rev: August 14, 2008

APPENDIX C: SAMPLE BOARD MEETING AGENDA

Southern Nevada
Regional Professional Development Program

Governing Board Agenda
May 6, 2014
Phone Conference
2:00 – 3:00
Call in number 888-622-5357
Participant Code 411253

I	Updates Concerning SNRPDP	Information
II	Approval of 2014-2015 RPDP budget with carryover & approval of 2014-2015 budget with carryover & NEPF funds.	Action
III	Approval of next biennium budget.	Action
IV	Approval for Bill to have the flexibility to increase requisitions up to $25,000 during the 2013-14/14-15 budgets. This has been done in the past and is efficient when things must be done quickly.	Action
V	Other	Information
VI	Adjournment	Action

Members of the public who are disabled and require special accommodations or assistance at the meeting are requested to notify Chelli Smith, in writing at 515 West Cheyenne , Suite C, No Las Vegas, Nevada, 89030, or by calling (702) 799- 3832 prior to the meeting.

This agenda has been posted at the following locations:
Clark County School District, 515 West Cheyenne, Suite C, North Las Vegas, NV 89030

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