Northwest Regional Professional Development Program

Self-Evaluation Report

2015 - 2016

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Kirsten Gleissner, Director
380-A Edison Way
Reno, NV 89502
775-861-1242

Executive Summary

During the 2015-16 school year, the Northwest Regional Professional Development Program (NWRPDP) facilitators supported teachers and administrators in a variety of content areas across the region's six districts. Support for diverse learners and parent/family engagement were an integral part of all trainings and workshops. Focus areas included, but were not limited to:

- Professional learning opportunities in understanding the Nevada Educator Performance Framework (NEPF) Instructional and Professional Responsibility Standards for teachers and administrators.

- Ongoing in-depth training and exposure to the Nevada Academic Content Standards (NVACS) in mathematics content for K-12 that included use of the Eight Mathematical Practices during instruction.

- Literacy and English training based on the Nevada Academic Content Standards (NVACS) for K-12-based Literacy development with particular focus on writing and robust vocabulary development.

- Workshops that focused on the incorporation of NVACS-Science Standards (based on the Next Generation Science Standards [NGSS]) into K-8 classrooms with an experiential approach to the application and inclusion of STEM content and practice.

- Focused support of Parent and Family Engagement in curriculum and teaching practice.

- Support for PreK – 3rd Grade teaching and learning strategies including standards alignment and assessment.

- Integration of computer education and technology into K-12 curriculum and instructional practice.

- Teacher Leader development through the National Board Certification process and the Northern Nevada Teacher Leader project.

The following report details the scope, content, type, and impact of services that the NWRPDP has performed within its six districts during 2015-16. This includes 11 narrative evaluation case studies which are representative of the program's overall service to our region and which share a common philosophy of standards-based professional learning delivered in the context of district and school plans. Included in each project is a long-term commitment to follow-up and support for teachers and administrators in order to sustain professional learning. The case studies, which share the story behind the work of our learning facilitators this year, cover a

wide range of subjects that include: increasing teacher learning with respect to the NVACS in literacy, math, and science; instructional strategies and planning that support student learning; strengthening new-hire teacher's math competences; helping teachers improve PreK-3rd grade classroom interactions; supporting teacher pedagogical acquisition of close reading strategies; promoting teacher leadership competencies to address recruitment, retention, and professional learning; and preparing teachers and administrators for inclusion of student data in teacher evaluation models.

Key findings:

- Case study evaluation data reveal a variety of positive outcomes across NWRPDP 2016 case study projects; examples include teacher growth in all eight leadership competencies among Washoe County participants, significant improvements (<.001) in knowledge and implementation confidence among teachers in five districts on close reading of informational text strategies; dramatic increases in teacher knowledge, attitudes, and effective practices in teaching middle school math standards; and increased teacher knowledge and retention of Life Science and STEM content, and project based learning practice.

- Professional development services were conducted in all six districts which comprise NWRPDP, reaching a total of 2,527 unique educators during 2015-2016. Because professional development covers varied training topics and consulting services, the total number of duplicated educators receiving services was 6,228. These robust numbers represent slight declines from 2014-15 when statewide mandates made that an unusual training year, but represent increases over the numbers of educators NWRPDP served in 2013. Elementary teachers (total served = 3,712) again were the largest educator group served this past year, followed by Middle school teachers (843), High school teachers (769), Others, which include substitutes, counselors and district personnel (521), and Administrators (383). Overall, 48% of the approximate 5,305 educators employed in the region participated in programs provided by the NWRPDP during 2015-16.

- Participant ratings of the quality of professional development trainings performed by NWRPDP staff reveal consistent and very high satisfaction ratings over the past several years (all mean ratings of trainings have been between 4 and 5, on a 5 point scale). During 2015-16, this included high mean ratings from educator participants regarding the expertise of the facilitators (4.6) and the quality of the delivery of instruction during trainings, particularly providing opportunities for interaction and reflection (4.6). In addition, educator participants again indicate overwhelmingly that they will use the knowledge and skills learned from NWRPDP trainings in their classrooms (4.5).

- Results indicated that 84.2% of this past year's training participants had attended previous NWRPDP professional development activities, and of those, a large majority

(4.24 mean on a 5 point scale, with 1 specifying ‘Not at all’ and 5 ‘To a great extent’) indicated that their participation had markedly changed their teaching instruction.

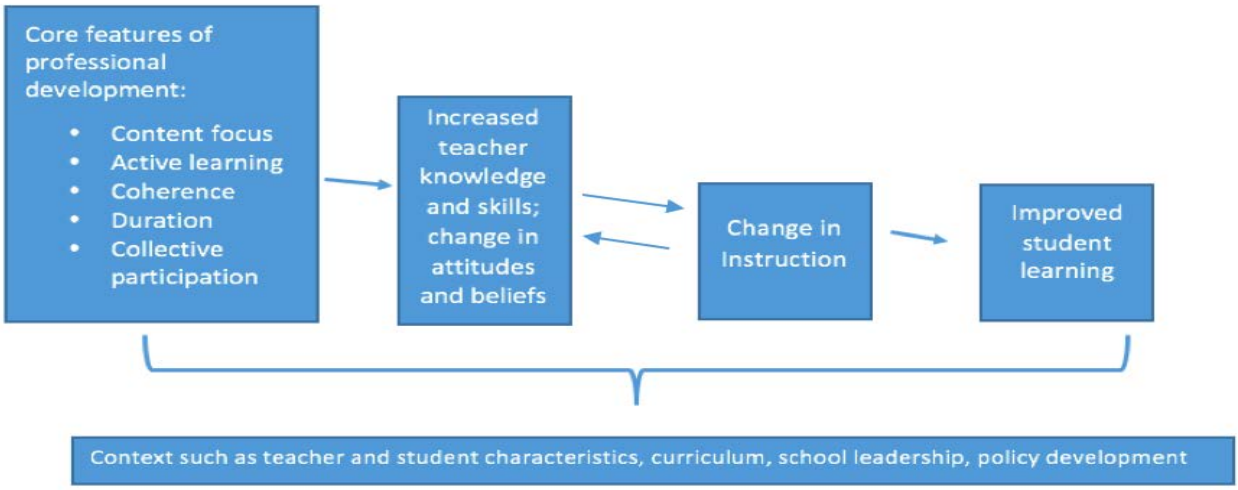
- Professional services this past year were predominately delivered at school sites in the form of in-service classes and workshops. Content was focused on the Nevada Educator Performance Framework (NEPF) and the Nevada Academic Content Standards (NVACS) in math, literacy, and science/STEM.

Table of Contents

Introduction:
Professional Learning Supports State Standards in Education

Teacher quality has long been found to have a considerable impact on student learning and achievement (Meister, 2010; Opfer & Pedder, 2011), and professional development is the primary strategy for affecting teacher quality (Lytle, 2008). This report details the self-evaluation efforts of the Northwest Regional Professional Development Program (NWRPDP) in providing training and professional development to the region's educators. This evaluation integrates several widely-accepted educator professional development frameworks, including Guskey's (2002) and Desimone's (2009) conceptual frameworks that identify critical features of how professional development can influence teacher and student outcomes (see Figure 1). A case study approach has been employed to assess the diversity and wide-ranging impact of various training topics. These mixed method strategies are advocated by Killion (2002), and are consistent with the educator professional development evaluation frameworks of Guskey (2002) and Desimone (2009). NWRPDP staff actively design and implement each evaluative case study that seeks to illustrate changes in teacher practice and student achievement as a result of the diverse professional learning activities employed over the past year.

Figure 1. Conceptual framework for studying the effects of professional development on teachers and students (Desimone, 2009)



The 2015-16 school year brought continued focus on the Nevada Academic Content Standards (NVACS), based on the Common Core, in English language arts and mathematics in the region. The Nevada Educator Performance Framework (NEPF) was officially implemented as the statewide evaluation system for teachers and site administrators with professional learning support from the RPDPs. Project-based Learning with a STEM focus and PreK-Grade Three supports were added as additional foci. Collaboration with the Washoe County School District in writing the Great Teaching and Leading Fund (GTLF) grant brought funding support to the

entire Northwest region to provide targeted training and follow-up on the NVACSS and STEM (based on the Next Generation Science Standards-NGSS). Included in the GTLF grant was support for a teacher leadership cohort to extend the learning of effective teachers and to increase retention and recruitment. Collaboration with regional teachers associations provided support for cohorts of teachers studying for their National Board Certification. NWRPDP facilitators collaborated with the Nevada Department of Education (NDE) to develop resources for End of Course (EOC) remediation in math and English language arts. Additionally, collaboration with NDE provided the opportunity for regional teachers to be certified in English Language Learning (ELL). Regional Learning Facilitators also served on state-wide committees to support the rollout of the state's *Read by Third Grade* grant and legislation, and assisted district personnel in developing district literacy plans. NWRPDP facilitators served on national committees with representatives from higher education, Departments of Education from several states, and national leaders in education. Through the efforts of NWRPDP facilitators, Nevada is now a representative state member of the national professional learning association, Learning Forward. Other collaborators included University of Nevada, Reno (UNR), and outside entities in grants designed to provide intensive content training in mathematics and science for K-12 teachers served by the regional program.

History:

Teacher and Student Performance in an Age of Standards

The Regional Professional Development Program was established by Nevada Revised Statue (NRS) 391.512 in 1999 to provide research-based professional development opportunities to all of the school districts in Nevada. The organization was further directed by NRS 391.544 to focus on training teachers in the standards which were established by the Council to Establish Academic Standards for Public Schools (NRS 389.520) and to establish and implement the Nevada Early Literacy Intervention Program (NELIP). Additionally, the regional program was directed to provide training in one or more of the following: using assessment and measurement of pupil achievement including methods of analyzing data to improve student achievement, instruction in content areas including methods of instruction, training in methods to teach basic skills to students in reading and mathematics, or training for educators who provide instruction to pupils who are limited English proficient. Originally set up as a Trainer of Trainers model, where teacher leaders from each site were trained as Site Trainers responsible for training their colleagues, the program moved to a model based on the National Staff Development Council (NSDC) standards for professional development which includes facilitation of learning, follow-up observations, and coaching with educators. As the trend in professional development moved towards Professional Learning Communities, the *Standards for Professional Learning* developed by Learning Forward, formerly NSDC (see Appendix A), were adopted in 2013. Additionally, the legislature included parent education for teachers as a focus for the regional professional development programs in 2011 (NRS.391.544). In 2013, legislation tasked the RPDPs with supporting training for teachers and administrators in the newly adopted Nevada Educator Performance Framework (NEPF) standards and indicators for evaluation of teachers and administrators (NRS.391.31217).

Implementation of Curriculum Standards
Trainers facilitated teacher learning on content and instructional strategies representing research-based best practices to increase student achievement. Programs were developed to facilitate the movement to standards-based instruction and to improve student achievement through improved teacher skills using backward lesson design (Wiggins & McTighe, 2005), engagement strategies (Marzano, Pickering, and Pollock, 2001; Kagan, 1990; Intrator, 2004), differentiated instruction (Rutherford, 2008; Silver and Strong, 2007; Tomlinson, 2000; Tomlinson and McTighe, 2006), and assessment (Stiggins, Arter, Chappuis and Chappuis, 2004).

The adoption and implementation of the Nevada Academic Content Standards (NVACS), based on the Common Core, resulted in shifts in curriculum, assessment, and instruction. Full implementation was required for the 2014-15 school year. In May of 2014, the Next Generation Science Standards (NGSS) were adopted, which resulted in the need to shift a third major content area to new content and instruction. With the new focus on performance expectations in science, an additional consideration was how to provide materials for hands-on science learning opportunities for teachers. In 2015, official use of the state evaluation system for educators (Nevada Educator Performance Framework – NEPF) required all teachers and site administrators to receive support on the framework. Regional Learning Facilitators continue to serve on national and state-wide committees to plan for the changes in content, instruction, and assessment that drive the implementation of the NVACS in literacy, math, and science.

Nevada Early Literacy Intervention Program (NELIP)
The NWRPDP continued to provide training and support for area teachers as they implemented the Nevada Early Literacy Intervention Program (NELIP), established in 2001. NELIP was specifically funded for the 2001-2003 biennium. However, for the 2003-2005 biennium, "funding for NELIP was consolidated with the RPDPs; this resulted in a State General Fund savings of approximately $1.2 million compared to the amount appropriated for the 2001-2003 biennium" (2007 Nevada Education Data Book, p. 161). Even without specific funding, the RPDPs have continued to include standards for literacy and instruction in the content areas in the early grades. The NWRPDP Kindergarten Cadre project supported Kindergarten teachers with training in phonemic awareness, phonics, vocabulary, fluency, comprehension, and student motivation in Washoe County along with other institutes for K-3 teachers. In the 2015-16 school year, NWRPDP expanded early literacy to include Pre-K to support alignment of PreK through third grade standards.

Collaboration
The NWRPDP has worked collaboratively with researchers, universities, and fellow professional learning facilitators over the years to better support the educational community in the region.

University of Nevada, Reno:
Several programs have grown out of the collaboration between the NWRPDP and the University of Nevada, Reno (UNR). The Northern Nevada Writing Project (NNWP), which started as an institute to support site trainers, still conducts institutes and on-going trainings for teachers in northern Nevada. During the summer of 2014, the NWRPDP collaborated with UNR on a

Mathematics and Science Partnership (MSP) grant which provided content and instructional strategies training in mathematics content and pedagogy to over sixty teachers from all six counties served by the NWRPDP. The NWRPDP also has enlisted the help of UNR professor, Dr. Bill Evans, to help guide the NWRPDP evaluation planning activities and annual report. Historically, a UNR representative sits on the local Governing Board.

Nevada Department of Education:

The NWRPDP has a long history of collaboration with the Nevada Department of Education (NDE). Early collaborations included support of the Student Achievement Gap Elimination (SAGE) initiative. This was followed by the initial data gathering efforts by Huck Fitterer of WestEd Laboratories, which lead to the *Data in a Day*, a teacher observation protocol, which later evolved into the *Teach for Success* protocol and the *T4S Observation Protocol and Program*, still in use in some districts today.

The NWRPDP supported the NDE during the introduction of the Depth of Knowledge (DOK) initiative in 2009 and provided training for educators in the region, which continued as the state moved towards the implementation of the Smarter Balanced Assessment Consortium instruments.

In 2010, extensive collaboration with the Nevada Department of Education (NDE) was initiated as the state began the transition to the NVACS. Initial collaboration focused on developing professional development to introduce educators to the new standards and included facilitators from all three regional programs as well as NDE personnel. Collaboration continued with the NDE and local districts to ensure successful implementation of the new standards and a smooth transition to the new assessments. During the 2014-15 school year, RPDP collaborations with NDE served to provide resources for teachers on the NDE website in support of math, English language arts, and the new Nevada Academic Content Standards in Science, based on the Next Generation Science Standards. Additionally, the Nevada State Literacy Plan was developed during the 2014-15 school year with the help of NWRPDP facilitators.

During the 2015-16 school year, the NDE included NWRPDP learning facilitators in the development of remediation materials for the high school End of Course (EOC) exams in math and English language arts. Ongoing collaboration also continued in support of the Nevada Educator Performance Framework (NEPF) as the state evaluation system went live this year.

Other Regional Professional Development Programs

In 2010, extensive collaboration with the other Regional Professional Development Programs (RPDPs) also was enacted to plan for the introduction of the NVACS, based on the Common Core. This collaboration continues and includes curriculum development and implementation strategies for educators. In 2013, adoption of the new teacher and administrator evaluation framework, the NEPF, began a statewide collaboration across all three regions to implement this new program with a common message and language. During 2013-2015, the RPDPs collaborated with NDE and WestEd in the execution of a validation study of the NEPF system.

Collaboration continues in order to maintain consistent messaging and support as the NEPF becomes embedded. The RPDPs across the state also collaborated this past year in an NDE-sponsored effort to develop a state science plan.

Future Direction

Recent legislative decisions continue to require educators to increase awareness of aligning resources and systems to support positive outcomes for students at all levels (Nevada Department of Education, 2013). To that end, the Nevada Regional Professional Development Programs serve a crucial role in supporting the ongoing professional learning of teachers and administrators.

The future direction of the Northwest RPDP is consistent with the expectations of the legislators, educators, students, and families of our state. In order to increase the learning of our students, ongoing support of the NVACS will be an ongoing focus. Developing pedagogical expertise and sharing curriculum resources to meet the demands of state standards will continue to be an important aspect of our work in collaboration with the Nevada Department of Education, our colleagues in the other two Nevada regional professional development programs, local universities, and district personnel. Supporting our teachers and administrators in aligning curriculum and instruction with assessment will be crucial, as will developing deeper understanding of how to evaluate the success of our classroom practices in terms of our students' learning growth. With this alignment in mind, the NWRPDP will continue to develop training and materials to expand professional learning opportunities for educators throughout the region while integrating 21st century skills and technology appropriate to the needs of each of our districts. It is a goal of the NWRPDP to support the uniqueness of each of our districts, whether urban or rural, and to provide services accordingly.

NWRPDP is committed to ongoing support of regional educators for implementation of the NVACS. Parent Involvement/Family Engagement will continue to be embedded in the NWRPDP work with teachers. The Nevada Educator Performance Framework (NEPF) for all educators will be an ongoing priority as we move into the next phases of application. In this era of transition from No Child Left Behind to the Every Student Succeeds Act (ESSA), creating an understanding of the interconnectedness and alignment of initiatives will be vital to sustaining learning for both teachers and administrators. According to Nevada's ESEA Flexibility Request (2014), "rich, job-embedded professional development is the most important factor for increasing educator capacity to provide learner-centered instruction that supports student growth and proficiency" (p. 16). Therefore, in accordance with legislation, district priorities, and the needs of our students and educators, the NWRPDP will continue to provide professional learning that aligns with the *Education 2020* Characteristics of Quality Professional Development (2014) and the federal Education Law Title 20 U.S.C. 7801(34):

- Continuous learning, not one-time seminars,
- Focused on improving classroom practices that increase student learning,
- Embedded in the daily work of teaching,

- Centered on crucial teaching and learning activities around our new content standards,
- Cultivated in a culture of collegiality around the same student improvement objectives,
- Supported by modeling and coaching that reflects 21st century skills, and
- Based on research-based best practices.

In partnership with our colleagues and communities, providing high-quality professional learning for teachers and administrators to support the needs of Nevada's students in the northwest region remains at the forefront of the Northwest RPDP's goals.

Our Vision: Nevada's Northwest Regional Professional Development Program, in accordance with the Nevada Revised statutes, is committed to elevating teaching and learning by providing sustained professional development and building regional partnerships.

Elevating Teaching and Learning!

Our Mission: Nevada's Northwest Regional Professional Development Program (NWRPDP) collaborates with stakeholders to provide high quality learning opportunities that are aligned with the Nevada Professional Learning Standards and the Nevada Academic Content Standards. NWRPDP offers diverse professional learning opportunities and support based on current empirical research on effective instruction for student learning. We are committed to increasing communication between regional members and families in order to develop capacity among all partnerships and to increase student achievement.

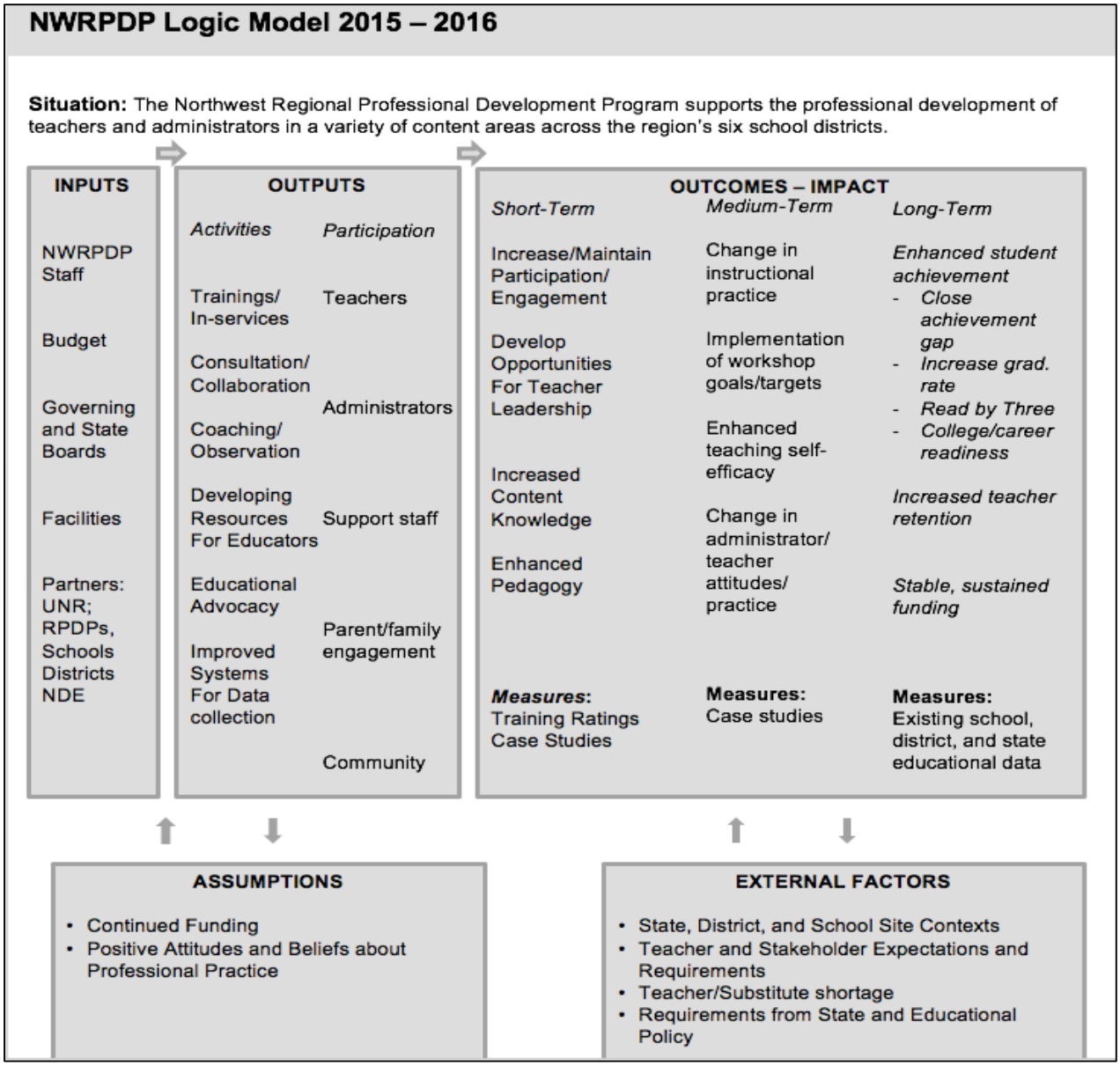
Self-Evaluation Overview

Self-Evaluation Procedures

As outlined in NRS 391A.190, Director Kirsten Gleissner directs the in-house evaluation, assisted by support staff who coordinate data collection and compilation. The Director and an outside consultant, Dr. Bill Evans from UNR, provide support for the rest of the team as they develop logic models, design instruments to gather and analyze data, and create, implement, and write their evaluative case studies. The case studies, based on the Killion (2002) staff development evaluation design, and aligned with recent teacher professional development frameworks (Desimone, 2009; Guskey, 2002), provide in-depth analysis of specific professional development projects, while showcasing the diversity and scope of the support provided by the NWRPDP to schools and educators in the region. These evaluation projects employ both qualitative and quantitative designs and incorporate mixed-methods data collection strategies to assess training outcomes. Collectively, they help to 'tell the story' and document the impacts of the diverse NWRPDP professional development activities this past year. An inclusive logic model depicting NWRPDP activities is shown in Figure 2. This conceptual model presents the overall professional development resources (inputs) and activities (outputs), and links them to the short, medium, and long term outcome objectives of the NWRPDP.

In addition to the case studies, this report describes the results of educator participant ratings of NWRPDP trainings and educational events, and the scope, type, and participant numbers of trainings that staff completed during 2015-16.

Figure 2. Northwest RPDP Logic Model



Legislative Requirements

Nevada Revised Statue (NRS) 391A.190 established the requirements for data collection used by the NWRPDP in the evaluation process. Areas specifically identified for documentation in the NRS include content standards, reading and math literacy, assessment, Nevada Early Literacy Intervention Program (NELIP), meeting the diverse needs of students including English Language Learners, Parent Involvement and Family Engagement support for teachers, Nevada

Educator Performance Framework (NEPF), and on-going follow-up to trainings. Optional areas for documentation identified in the NRS include educational technology, model classrooms, training for paraprofessionals, and suicide prevention.

Statewide Coordinating Council & Governing Board Requirements
The Statewide Coordinating Council and the Governing Board have established the instrument used by the NWRPDP to collect participant evaluation data. The RPDP Activity Evaluation form (see Appendix B), which uses a Likert-type scale, is used to collect data from participants regarding the effectiveness of the professional development provided by regional facilitators. An area for comments also is provided to collect qualitative input.

Services can be requested through direct contact with a facilitator or the director. An initial consultation is scheduled to determine the most effective format, timeline, and content. The updated Contact Form (see Appendix C) provides data including length of the training, group demographics, primary focus of the service provided, and type of service provided. A data tracking method through Google Docs provides additional information regarding initiation, type, and delivery of services by each facilitator in each of the counties served, and more specific data regarding the distribution of services throughout the region. Results from this data collection provided information for this document. In 2010, the Assembly Committee Resolution 2 (ACR2) Report was established to provide districts with information about the trainings provided.

Professional Development Standards
In 2013, the Nevada State Professional Development Standards were replaced by the Learning Forward *Standards for Professional Learning* (see Appendix A). Since that time, trainings have been assessed against the new standards during the planning, delivery, and reflection phases using a rubric (Appendix A). The *Standards for Professional Learning* were reconfirmed by the Statewide Coordinating Council in 2015.

How is the NWRPDP organized?

The NWRPDP is composed of 14 full-time Learning Facilitators, under the direction of Kirsten Gleissner. Support is provided by three full-time regional support professionals. In 2015-2016, four additional part-time facilitators served the region in support of the NEPF rollout. The NWRPDP provides services to Carson City, Churchill, Douglas, Lyon, Storey, and Washoe counties. Nine of the learning facilitators operate out of the Reno office, one facilitator coordinating services in Lyon County. One facilitator serves as liaison for each of the other rural counties and is housed in that district. Learning Facilitators are selected based upon their expertise covering all K-12 grade levels, plus the content, standards, and literacy requirements of the state professional development legislation. Facilitators average almost 20 years of teaching and/or administrative experience with a minimum of a master's degree.

The Statewide Coordinating Council
NRS 391A.130 establishes the Statewide Coordinating Council (SCC), with direct responsibility to coordinate and disseminate information regarding training, programs, and services across the regions; to adopt uniform procedures for professional development and evaluation; and to conduct long-term planning for the program.

As defined in NRS 391A.130, the SCC currently consists of nine members: the Superintendent of Public Instruction or his or her designee; one member who is not a Legislator, appointed by the Majority Leader of the Senate and one appointed by the Speaker of the Assembly; one teacher appointed by the Governor from a list of nominees submitted by the Nevada State Education Association; one administrator at a public school (not at the district level) appointed by the Governor from a list of nominees submitted by the Nevada Association of School Administrators; one member appointed by the Governor; three members, each of whom is a superintendent of schools, or designee, appointed by each of the Governing Boards.

The Governing Board
NRS 391A.150 establishes a governing body for each regional program and the membership of that body. Membership consists of the superintendent of schools or his/her designee for each school district served by the NWRPDP, a master teacher appointed by the superintendent of each represented district, representatives of the Nevada System of Higher Education, and a non-voting member of the Nevada Department of Education.

The duties of the Governing Board include the following:

- Selection of the program coordinator/director
- Annual review of budget
- Acceptance of gifts and grants
- Adoption of a regional training model
- Needs assessment of regional teachers and administrators
- Review of the five-year plan

The NWRPDP Governance Board members for 2015-2016 were alphabetically: Scott Bailey, Chief Academic Officer, superintendent designee, Washoe County School District; Barbara Barker, Washoe County master teacher; Dave Brancamp, Nevada Department of Education; Kirsten Gleissner, Director, NWRPDP; Dr. Melissa Burnham, appointed by the Dean of the College of Education, University of Nevada, Reno; Rommy Cronin, Curriculum and Instruction Director, superintendent designee, Douglas County School District; Damon Etter, Lyon County master teacher; Claudia Fadness, Curriculum and Instruction Director, superintendent designee, Lyon County School District; Susan Keema, Associate Superintendent of Educational Services, superintendent designee, Carson City School District; Kimi Melendy, Curriculum and Instruction Director, Churchill County master teacher; Jamie Nerska, Douglas County master teacher; Candi Ruf, Carson City master teacher; Dr. Sandra Sheldon, Superintendent, Churchill County School District; Dr. Robert Slaby, Superintendent, Storey County School District; Karen Staffen, Storey County master teacher; and Pamela K. Mills, NWRPDP Administrative Assistant. Susan Keema served as chair of the Governing Board in school years 2015-2017.

Governing Board meeting agendas can be found in Appendix D.

Long Range Planning

As required by legislation, the Statewide Coordinating Council (SCC) reviews long-range planning for the three state RPDPs in the form of a five-year plan developed in collaboration with the Governing Board (see Appendix E). The current plan runs from 2012-2017 with a yearly review. NWRPDP Director Kirsten Gleissner uses the five-year plan's goals as a guide to inform the northwest region's annual goals.

Goal 1: Implement the Nevada Professional Development Standards

For the 2012-2013 school year, the Statewide Coordinating Council adopted the *Standards for Professional Learning* (Learning Forward, 2011,) (see Appendix A) for use by the regional professional development programs to replace the Nevada Professional Development Standards. The NWRPDP used the new standards as an ongoing form of self-assessment for collecting data regarding the implementation of projects used in the case studies documented in this report and for assessing the year's work. The Standards were reconfirmed by the SCC in 2015.

Goal 2: Design and implement high quality Professional Development for teachers to improve student achievement

Professional development (PD) is often initiated by requests from district or site administrators based on goals in their District Performance Plans or School Performance Plans. PD is supported by research and conducted as part of a reflective cycle which includes assessment, analysis, and feedback to ensure consistent high quality programs.

Goal 3: Design and implement high quality PD for school administrators that increases their instructional leadership skills to improve student achievement

The three regions generally sponsor an annual one-day Leadership Summit in both the northern and southern sections of our state, in which our director and several trainers participate each year as presenters. Regional trainers included administrators in their trainings at the school sites – in fact, participation of administrators is preferred. The math and science grants also included administrators from the school teams during the summer sessions. In 2015-2016, support for administrators was provided for the NEPF in the form of Maximizing Inter-Rater Reliability workshops, examination of the rubrics for both teachers and administrators, and support for observation, data collection, and conferencing with teachers.

Goal 4: Implement systems to measure impact of RPDP professional development on teacher effectiveness and student learning

In addition to collecting multi-year systematic data on the scope, type, participation, and feedback from NWRPDP PD trainings, a case study approach has been employed to assess the diversity and wide-ranging impact of various training topics. These mixed method strategies are advocated by Killion (2002), and are consistent with the educator PD evaluation frameworks of Guskey (2002) and Desimone (2009). NWRPDP staff actively design and implement each

evaluative case study that seeks to illustrate changes in teacher practice and student learning as a result of the diverse PD activities employed over the past year.

Needs Assessment

The assessment of training needs of teachers and administrators is determined through a combination of planning tools and strategies, including but not limited to the following:

- Collaborative meetings with superintendents or key district personnel to identify priorities and needs on an annual basis guided by the District Performance Plan (DPP).
- Request for services from principals based on their School Performance Plan (SPP) and needs of teachers on staff.
- Collaborative planning meetings with principals and leadership teams to determine goals and objectives for designing a professional development plan.
- Collaborative work with Nevada Department of Education Initiatives to design and implement roll out plans for the NVACS as well as other state initiatives.

Regional Structure Effectiveness

The structure of the region remained consistent during the 2015-16 school year, with all facilitators available to bring expertise to all districts in the region.

Services provided to each county in relationship to the number of schools in that county were as follows: Washoe County, which has 66% of the schools in the region, received 38% of the services; Carson City with 7% of the schools received about 32% of the services, Churchill County with 3.9% of the schools received 39.5%, Douglas County with 9% of the schools received 16% of the services, Lyon County with 11% of the schools received 31% of the services and Storey County with 2.6% of the schools received 6.4% of the services provided by facilitators in the region. The balance of the trainers' time, 8.75%, was allocated to regional projects and collaborations with other state agencies.

Staffing Patterns and Roles

There were no staff changes during the 2015-16 school year. However, a new position for 2015-16 to support PreK through 3rd grade initiatives was successfully integrated. A grade 7-12 math facilitator position was not filled and was reconfigured to support content literacy at the secondary level for the upcoming year. Outside help was contracted to support administrator professional learning as there is no full-time administrator learning facilitator on staff.

Program evaluation continues to focus on the reflective cycle to support quality professional learning throughout the region. Staff provide input to the process through case studies, data collection, and data interpretation. Program evaluation is accomplished via support from an external evaluator to allow outside eyes to critique and clarify the yearly evaluation report.

Learning facilitators bring experience in all content areas at both elementary and secondary levels. Additional areas of expertise, beyond implementation of standards-based instruction focused on the NVACS, include elementary and secondary literacy and Nevada Early Learning Intervention Program (NELIP); pedagogy; Sheltered Instruction; Understanding by Design (UbD-also known as Backward Lesson Design); Student Learning Objectives (SLO); Science,

Technology, Engineering, and Mathematics (STEM); Nevada Educator Performance Framework (NEPF); and parent involvement/family engagement, among others. Learning facilitators update their knowledge and skills through attendance at national, regional, state, and local conferences and workshops. Staff biographies are available on the NWRPDP website located at www.nwrpdp.com. The chart below represents the organization of the NWRPDP for the 2015-16 school year. Table 1 lists staff members, their titles and areas of expertise for the current year.

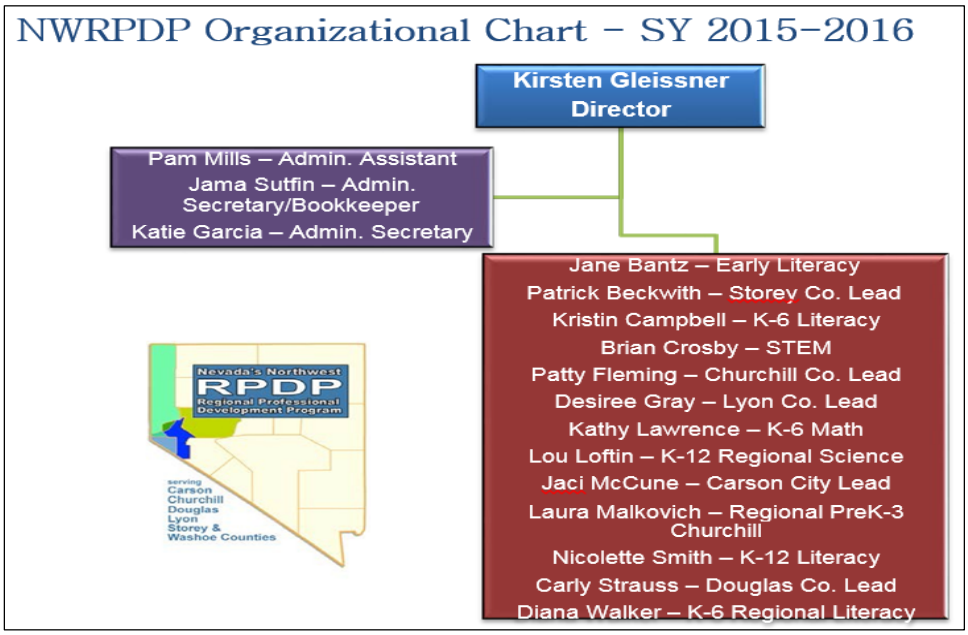


Table 1: NWRPDP Staff Members, titles, and areas of expertise for the 2015-16 school year

Name	Title	Area of Expertise
Kirsten Gleissner	Director	School performance/improvement planning; Leadership Team, Professional Learning Communities, and Data Team support; classroom observation and coaching; Administrative Mentoring; NVACS; NEPF
Jane Bantz	Early Literacy and Numeracy Learning Facilitator	NVACS Best Practices in literacy and numeracy, PreK – 2; NELIP; NEPF
Patrick Beckwith	Professional Learning coordinator for Storey County	Mathematics, Assessment, Administrative Mentoring, NVACS, NEPF
Kristin Campbell	K-12 Learning Facilitator	NVACS, Science and Social Studies content area literacy, Backward Lesson Design (UbD), Assessment, Student Learning Facilitator (SLF) program, T4S, Core Task Implementation Project (CTIP), Writing to Sources, Differentiated Instruction, Project-based Learning, NEPF

Name	Title	Area of Expertise
Brian Crosby	K-12 STEM Learning Facilitator	STEM, Inquiry, Depth of Knowledge, NVACS, Differentiated Instruction, Outdoor Education, technology integration
Patty Fleming	K – 12 Mathematics and Literacy Learning Facilitator, coordinator for Churchill County	NVACS Elementary and Intermediate Math; Sheltered Instruction, Balanced Literacy; T4S; Instructional coaching; New Teacher Induction and Mentoring; Vocabulary Instruction- *OWL: Owning Words for Literacy; W*riting Traits, Differentiating Instruction, Teaching Gifted Students in the Regular Classroom; Formative Assessment; NEPF
Desiree Gray	7-12 Literacy Learning Facilitator, coordinator for Lyon County	Content Literacy, Sheltered Instruction, Academic Vocabulary, Thinking Maps, Constructed Response, Professional Learning Communities, NVACS, NEPF
Darl Kiernan	K-6 Literacy Striving Readers Liaison	K-6 Literacy, Word Study, NVACS, Student Learning Facilitator Program, K-6 Writing
Kathy Lawrence	K-6 Mathematics Learning Facilitator	K-6 Mathematics, Coaching and feedback, collaborative learning, Backward Lesson Design, formative assessment, methods for facilitating student discussion and problem-solving in mathematics.
Lou Loftin	K-12 Science Learning Facilitator	K-12 Science Inquiry, Depth of Knowledge (DOK), NVACS, Differentiated Instruction Science and Math, Informal Science, Outdoor Science Education, Science/Math Integration, STEM
Laura Malkovich	PreK-3rd Grade Regional Learning Facilitator	PreK-3rd Grade Initiatives and planning, Classroom Assessment Scoring System (CLASS) observations and coaching, Early Childhood Environment Rating Scale (ECERS 3) and Early Language & Literacy Classroom Observation (ELLCO) assessments , Family Engagement, WIDA Early Years, NEPF
Jaci McCune	K-6 Mathematics Learning Facilitator, coordinator for Carson City	NVACS Elementary Math content, K-6 science support, Sheltered Instruction Observation Protocol (SIOP), T4S, Stetson Inclusion Model, Gifted and Talented, Assessment, NEPF
Nicolette Smith	K-12 Literacy and Social Studies Learning Facilitator	Differentiated Instruction, Backward Lesson Design, Content area literacy, Student Learning Facilitator (SLF) Program, Social Studies Content, NVACS, NEPF
Carly Strauss	K-8 Mathematics Learning Facilitator, coordinator for Douglas County	NVACS K-6 math content, methods for facilitating student discussion and problem-solving in mathematics, Academic Vocabulary, Assessment, Counseling, Mindset, NEPF
Diana Walker	K-12 Literacy Learning Facilitator	NVACS content area literacy, writing, Academic Vocabulary, Assessment, Differentiated Instruction, English Language Learners, NEPF
Katie Garcia	Support Staff	Administrative Secretary

Name	Title	Area of Expertise
Pam Mills	Support Staff	Administrative Assistant
Jama Sutfin	Support Staff	Administrative Secretary/Bookkeeper

Collaborations

Learning facilitators reported participation in projects which represented collaborations with other state agencies, most notably the Nevada Department of Education and the University of Nevada, Reno. This represented 8.75% of the trainers' time during the 2015-16 school year.

Collaboration with the Nevada Department of Education (NDE) focused on NVACS initiatives, furthering the work started with representatives of the regions, districts, and state. This collaboration included the development of the State Science Plan and placement of resources for teachers and administrators on the NDE website in support of content standards and NEPF. Learning facilitators worked with NDE staff to analyze and develop resources in support of remediation for the high school End of Course exams in math and English language arts. Support from the NDE also provided support for a cohort of teachers to receive English Language Learner certification.

Regional learning facilitators collaborated with the Northern Nevada Mathematics Council to plan the fifth annual Math Academy and to present at sessions throughout the day.

Ongoing grant collaborations included five learning facilitators who collaborated with the University of Nevada, Reno, on the Mathematics Partnership grant which provided training in mathematics content and pedagogy for elementary school (K-6) teachers representing all six counties served by the NWRPDP. Two learning facilitators participated in the Science, Technology, Engineering, and Mathematics (STEM) Education Coalition in collaboration with the university and concluded a significant grant with Project Water Education for Teachers (PWET). Collaboration continued with the Striving Readers grant.

The advent of the new state Great Teaching and Leading Fund grant (GTLF) inspired the collaborative submission of an application by Washoe County School District (the NWRPDP fiscal agent) and NWRPDP. Awards were granted in the area of NVACS Science/STEM and Teacher Leader Development that served teachers across the region.

Regional learning facilitators participated in a variety of other collaborative projects as well. Cross-regional collaboration with districts outside the region included science and STEM content in several rural counties and collaboration with the Nevada Education Association in support of National Board Certification opportunities.

What are the nature and extent of services?

Participant Counts and Training Categorizations

Professional development services are reported in two formats: unduplicated counts which show how many teachers, administrators, and paraprofessionals were served in each county; and duplicated counts which reflect how many educators participated in trainings, many more than once. Tables 2 and 3 show these data.

Table 2: Unduplicated Number of Educators Trained by the NWRPDP

District	ES Teachers	MS Teachers	HS Teachers	Administrators	Others*	Total by District
Carson	231	112	141	40	122	646
Churchill	89	14	34	7	38	182
Douglas	177	44	46	23	22	312
Lyon	259	107	123	25	18	532
Storey	5	3	5	2	0	15
Washoe	566	86	65	34	89	840
Totals	1327	366	414	131	289	2527

Table 3: Duplicated Number of Educators Trained by the NWRPDP

District	ES Teachers	MS Teachers	HS Teachers	Administrators	Others*	Total by District
Carson	926	344	327	162	187	1946
Churchill	543	55	66	23	91	778
Douglas	545	74	75	74	50	818
Lyon	491	202	165	64	28	950
Storey	5	3	6	2	0	16
Washoe	1202	165	130	58	165	1720
Totals	3712	843	769	383	521	6228

*Others in Tables 2 and 3 included certified personnel who did not specify a grade level, substitutes, school counselors, district-level certified positions, and other participants such as parents, paraprofessionals, and community members.

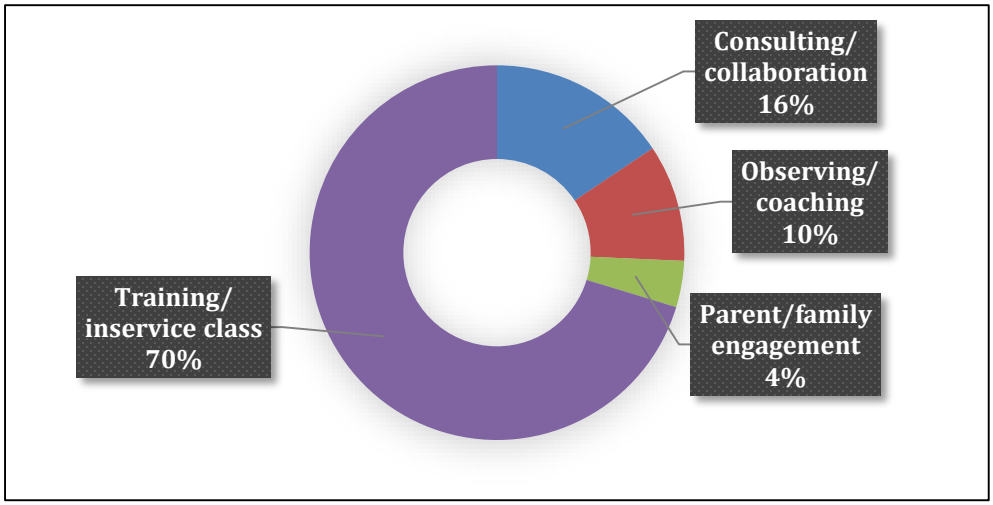
A total of 2,527 educators, 48% of the approximate 5,305 educators employed in the region (National Center for Education Statistics, 2014), participated in programs provided by the NWRPDP during 2015-2016 (unduplicated count). In Carson City, 100% of the teachers and administrators participated in programs, 88% of the teachers and administrators in Churchill County participated in programs, in Douglas County 84% participated, 94% of the certified staff in Lyon County, in Storey County 44%, and 23% of teachers and administrators in Washoe County were served. Many educators attended programs on more than one occasion, resulting in a total of 6,228 contacts between the NWRPDP and educators during the year (duplicated count).

Type and Focus of Services

The NWRPDP provides a wide variety of services for the six counties in the region. Figure 1 shows the breakdown of the types of services provided by regional trainers throughout the

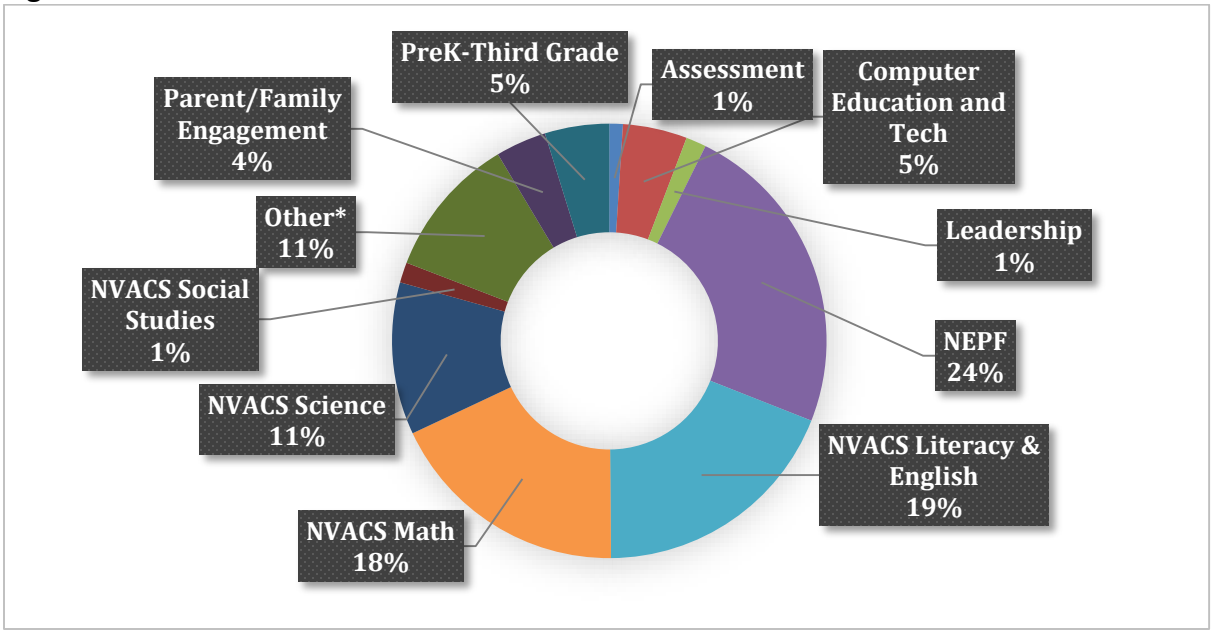
district with a significant majority of services being in the form of training and in-service classes for the 2015-16 school year.

Figure 1: Types of Services Provided by the NWRPDP



Another measure of services is the focus of the services provided. This measure looks at the content of the services offered in the region (See Figure 2). The major areas of services provided in the region for the 2015-16 school year were the ongoing focus training of the Nevada Educator Performace Framework (NEPF) and the implementation of the Nevada Academic Content Standards in literacy (including writing), math, and science/STEM.

Figure 2: Focus of Services of the NWRPDP



Types of Services Provided by District

Carson City School District has eleven schools: six elementary schools, two middle schools, one comprehensive high school, one alternative high school, and one charter school. One full-time learning facilitator is housed in Carson. Training focused mainly on the Nevada Educator Performance Framework and Nevada Academic Content Standards in science and math, followed by computer education and technology. (See Appendix F)

Churchill County School District has six schools: one Pre-K school (early learning center), one Kindergarten-first grade school, one school for grades two-three, one school for grades four-five, one middle school, and one comprehensive high school. There is also a charter school in Churchill County that accesses services. A full-time Learning Facilitator coordinates services for Churchill County. A second full-time facilitator is housed in Churchill but serves the entire region in PreK-third grade initiatives. Primary areas supported by regional learning facilitators this year were Nevada Academic Content Standards in math and literacy, followed by PreK-third grade initiatives, the Nevada Educator Performance Framework, and other supports for English Language Learners. (See Appendix G)

Douglas County School District has fourteen schools: seven elementary schools, three middle schools, and four high school schools. A full-time Learning Facilitator coordinated services for Douglas County. The majority of services provided this year were in support of the Nevada Academic Content Standards in math, the Nevada Educator Performance Framework, and other supports in Mindset/Social Emotional Learning, new teacher training, and formative assessment. (See Appendix H)

Lyon County School District has seventeen schools in five communities (Yerington, Dayton, Fernley, Smith Valley and Silver Springs): eight elementary schools, four intermediate schools, four high schools, one K-8 school, and one K-12 school. A full-time facilitator coordinates services for Lyon County. Services were focused this year on the Nevada Educator Performance Framework followed by the Nevada Academic Content Standards in science and literacy. (See Appendix I)

Storey County School District has four schools and one part-time Learning Facilitator dedicated to organizing professional development for the district. Storey County received services in implementing the Nevada Academic Content Standards in math, science, literacy, the Nevada Educator Performance Framework, and parent/family engagement. In addition, supports were provided in other areas such as assessment and English Language Learners. (See Appendix J)

Washoe County School District is the largest school district in the region with 102 schools: 62 elementary schools, 15 middle schools, 15 high schools, one K-12 school, one online school, and eight charter schools. Nevada Academic Content Standards (NVACS) in literacy (including writing) and math were the main focus of training. (See Appendix K)

What is the quality of NWRPDP professional development?

Participant Rating of Quality of Training

At the conclusion of every training or project, participants are asked to evaluate the training using the form designed and implemented by the Statewide Coordinating Council (See Appendix C). The data in Table 4 reveals the average ratings for all trainings provided in the region over the past three years (see Table 4). In reviewing the ratings in this table, it is notable how consistent and high participant ratings have been over this past 3-year training cycle. The highest levels of satisfaction regarding trainings this past year were on items related to the expertise of the facilitators and the delivery of instruction during trainings, particularly providing opportunities for interaction and reflection. Areas for examination and growth included matching trainings to teachers' perceived needs and teaching skills and connecting professional learning to the needs of diverse students. The data for item 6 (knowledge of standards and/or subject matter content) may be influenced by participants who failed to mark "not applicable" when trainings such as sheltered instruction or pedagogical strategies are not centered on content standards.

Table 4: Participant Mean Ratings on Quality of RPDP Trainings

Question (n = 3024)	2013-2014 Rating	2014-2015 Rating	2015-2016 Rating
1. The activity matched my needs	4.4	4.4	4.3
2. The activity provided opportunities for interactions and reflections.	4.7	4.7	4.6
3. The presenter/facilitator's experience and expertise enhanced the quality of the activity.	4.7	4.7	4.6
4. The presenter/facilitator efficiently managed time and pacing of activities.	4.7	4.7	4.6
5. The presenter/facilitator modeled effective teaching strategies	4.6	4.6	4.5
6. This activity added to my knowledge of standards and/or subject matter content.	4.5	4.5	4.4
7. The activity will improve my teaching skills	4.4	4.4	4.3
8. I will use the knowledge and skills from this activity in my classroom or professional duties	4.5	4.5	4.5
9. This activity will help me meet the needs of diverse student populations (e.g., gifted and talented, ELL, special ed., at-risk students).	4.4	4.4	4.3
(Scale: 1 = not at all: 3 = to some extent; 5 = to a great extent)			

This past year a modification to the training form was made to assess if participants also had taken NWRPDP trainings in past years, and if so, if that previous participation had changed their teaching instruction. Results indicated that 84.2% of 2015-16 training participants had attended previous NWRPDP professional development activities, and of those, a large majority (4.24 mean on a 5 point scale, with 1 specifying 'Not at all' and 5 'To a great extent') indicated that their participation had markedly changed their teaching instruction.

Internal Assessment for Quality Assurance

The region uses an internal program evaluation model as recommended in the *Evaluation Report: Nevada Regional Professional Development Program 2004-2005 and 2005-2006.* Positive feedback from constituents on the expansion of the case study model to include a wide variety of projects throughout the region provided direction for the NWRPDP to maintain this model. Case studies which document the breadth of training topics in the region and showcase the in-depth work of each trainer are included in this report. Projects were designed based on the backward planning model from *Assessing Impact: Evaluating Staff Development* by Killion (2002). Procedures for assessing constituents' needs and project data collection are continually sought and refined.

Professional Learning Standards

In 2015, the Statewide Coordinating Council reconfirmed the adoption of the *Standards for Professional Learning* (Learning Forward, 2011) which serve as the basis for internal evaluation of all projects. These standards are incorporated into NWRPDP planning that help staff monitor critical aspects of their professional learning implementation. NWRPDP facilitators use the standards for self-reflection and rate themselves on each of the seven elements using a descriptive rubric (see Appendix A). The rating scale range includes 0 (not applicable), 1 (ineffective), 2 (minimally effective), 3 (effective), and 4 (highly effective). The NWRPDP staff mean ratings of standards implementation reported below reflect the application of these standards to their training activities and consultation throughout the region for the year.

LEARNING COMMUNITIES:

Professional learning that increases educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment.

Implementation rating: *3.2 Effective*

Rationale and evidence: Participants are engaged in continuous improvement and follow up, take responsibility for the learning, and participate in creating alignment and accountability at least 75% of the time.

LEADERSHIP:

Professional learning that increases educator effectiveness and results for all students requires skillful leaders who develop capacity, advocate, and create support systems for professional learning.

Implementation rating: *3.6 between Effective and Highly Effective*

Rationale and evidence: The project is designed to develop capacity in participants and creates support systems for on-going learning.

RESOURCES:

Professional learning that increases educator effectiveness and results for all students requires prioritizing, monitoring, and coordinating resources for educator learning.

Implementation rating: *3.4 between Effective and Highly Effective*

Rationale and evidence: There is evidence of a system in place to prioritize, monitor and coordinate human, fiscal, material, technology, and time resources to support the project until all participants are trained.

DATA:
Professional learning that increases educator effectiveness and results for all students uses a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning
Implementation rating: *3.2 Effective*
Rationale and evidence: Student, educator, and system data is analyzed initially to plan the project and at the end to evaluate the project.

LEARNING DESIGNS:
Professional learning that increases educator effectiveness and results for all students integrates theories, research, and models of human learning to achieve its intended outcomes.
Implementation rating: *4.0 Highly Effective*
Rationale and evidence: Learning theories, research, and models of human learning, which emphasize active engagement are used consistently by facilitators to plan and deliver the learning. Active engagement is emphasized in training.

IMPLEMENTATION:
Professional learning that increases educator effectiveness and results for all students applies research on change and sustains support for implementation of professional learning for long-term change.
Implementation rating: *3.7 between Effective and Highly Effective*
Rationale and evidence: Change research is consistently applied and follow up systems are sometimes in place to sustain implementation; constructive feedback is provided occasionally to participants as they implement new learning.

OUTCOMES:
Professional learning that increases educator effectiveness and results for all students aligns its outcomes with educator performances and student curriculum standards.
Implementation rating: *3.8 between Effective and Highly Effective*
Rationale and evidence: Educator performance standards are considered throughout the project and learning outcomes are aligned and build coherence throughout the school or district.

Areas of strength for implementation of the Standards for Professional Learning were reported in developing leadership and capacity in participants, support for change during implementation, and increasing focus on outcomes for participants. All facilitators indicated that utilizing research-based learning designs was in place and consistent. Two areas for ongoing growth and consideration were identified as 1) the consistent use of data for planning and assessment of student learning as related to professional learning, and 2) the use and effectiveness of professional learning communities.

Research and Development Base

Professional development (PD) based on current educational literature and aligned to the Standards for Professional Learning (see Appendix A) is the foundation of the NWRPDP's work. A list of the references cited in this report and on which the case studies are based can be found starting on page 85.

How does the NWRPDP measure training effectiveness?

The Case Study Model

The NWRPDP has utilized the case study model to document its work over several years. The regional program has continued an internal evaluation model, which involves a team of facilitators and incorporates case studies from projects throughout the region to document not only the diversity and wide-ranging impact of the work, but also, in some cases, to document the long-term effects of the support provided to teachers in the region. Evaluative case studies facilitate exploration of complex phenomena within their contexts—in this case, professional development (PD) within schools and districts--using a variety of data sources. This ensures that PD is not explored through one lens, but rather a variety of lenses, which allows training effectiveness to be revealed and understood more fully (Guskey, 2002; Yin, 2003). NWRPDP staff actively design and implement each evaluative case study that seeks to illustrate changes in teacher practice and student learning as a result of the diverse professional learning activities employed over the past year. Thus, the following 11 case studies are focused evaluation investigations that incorporate mixed-method research designs to illustrate the breadth of training, variety of topics, and depth of consultation employed by NWRPDP staff over the past year. Each also has a logic model attached that was developed to guide the evaluation of the case study and illustrates the short, medium, and long-term outcomes expected from the professional development project.

NWRPDP Case Studies

Case Study 1: Improving Teacher Content Knowledge in Mathematics

Introduction

"If today's students are to be tomorrow's math and science innovators, then their teachers must equip them with the necessary knowledge and skills. Yet research shows that many teachers... don't understand important math and science concepts well enough to teach them effectively," according to Joan Pasley in *Ramping Up Teachers' Math and Science Content Knowledge* (2011). Pasley cites several research studies showing that when teachers have deeper content knowledge, they are better able to understand the conceptual "story line" in mathematics. Additional studies show that when teachers lack content knowledge in math, they tend to rely more on teaching procedures and algorithms rather than the underlying concepts. The Nevada Academic Content Standards in Mathematics, based on the Common Core State Standards in Mathematics, call for teaching that balances conceptual understanding, procedural skill and fluency, and application to the world. If teaching is going to shift away from relying heavily on procedural skill and fluency, teachers must develop their own conceptual understanding of mathematical concepts.

In Douglas County School District, elementary teachers have been implementing the Nevada Academic Content Standards in math for the last several years. While teachers were familiar with the new standards for their grade levels, it became evident that elementary teachers often lacked conceptual

understanding in mathematics. Douglas County School District is implementing a new math curriculum that not only builds conceptual understanding for students, but also for teachers as they progress through the curriculum.

Instructional Context

Douglas County School District (DCSD) is a rural school district located in Northern Nevada. DCSD is comprised of 13 schools, including 7 elementary schools, 2 middle schools and 4 high schools. Approximately 6,100 students are enrolled in DCSD. The student population is comprised of 68.24% white students, 20.19% Hispanic students, 3.75% American Indian students and 5.55% students who are more than one race. DCSD has an Average Daily Attendance rate of 95.3%. It has a graduation rate of 84.9 as reported in the Nevada Report Card (2014).

According to the Nevada School Performance Framework, Douglas County School District has seven three star schools, four four-star schools and two five-star schools. Table 1 shows a summary of the standards-based test performance for grades 3-5 based on 2013-14 assessment results. Students scoring ED (emerging/developing) and AS (approaching standard) do not meet proficiency. Students scoring MS (meets standard) and ES (exceeds standard) meet or exceed the standard.

Table 1: Standards-based Test Performance Grades 3-5

Grade Level	Reading	Mathematics
3	ED 12% AS 16% MS 41% ES 32%	ED 5% AS 19% MS 34% ES 42%
4	ED 8% AS 15% MS 52% ES 25%	ED 2% AS 17% MS 65% ES 16%
5	ED 9% AS 11% MS 50% ES 29%	ED 14% AS 17% MS 68% ES 2%

Initial Data and Planning

Teachers reported that they did not learn math in the way that the Nevada Academic Content Standards require them to teach. Most teachers reported that they learned math in a procedurally driven manner and that they do not feel certain about the underlying math concepts. The new math curriculum teaches mathematics conceptually, requiring teachers to develop their own content knowledge. Because the materials were new, there was no initial data other than self-report statements made by teachers. Additionally, teachers reported feeling nervous about the new standardized testing for students that assesses students in procedural skill and fluency, as well as conceptual understanding in math. Teachers reported struggling to shift their teaching to a more balanced approach that truly develops conceptual understanding for mathematical concepts in their students.

Delivery of Services

Teachers were asked to implement their math curriculum for the 2015-16 school year. Two math leaders were selected at each elementary school site to hold monthly meetings and support teachers with the new curriculum. Each elementary teacher was given online access to be able view videos

showing how to teach the curriculum and other support resources. A professional development trainer at the district level modeled math lessons in multiple classrooms throughout the district based on teacher request.

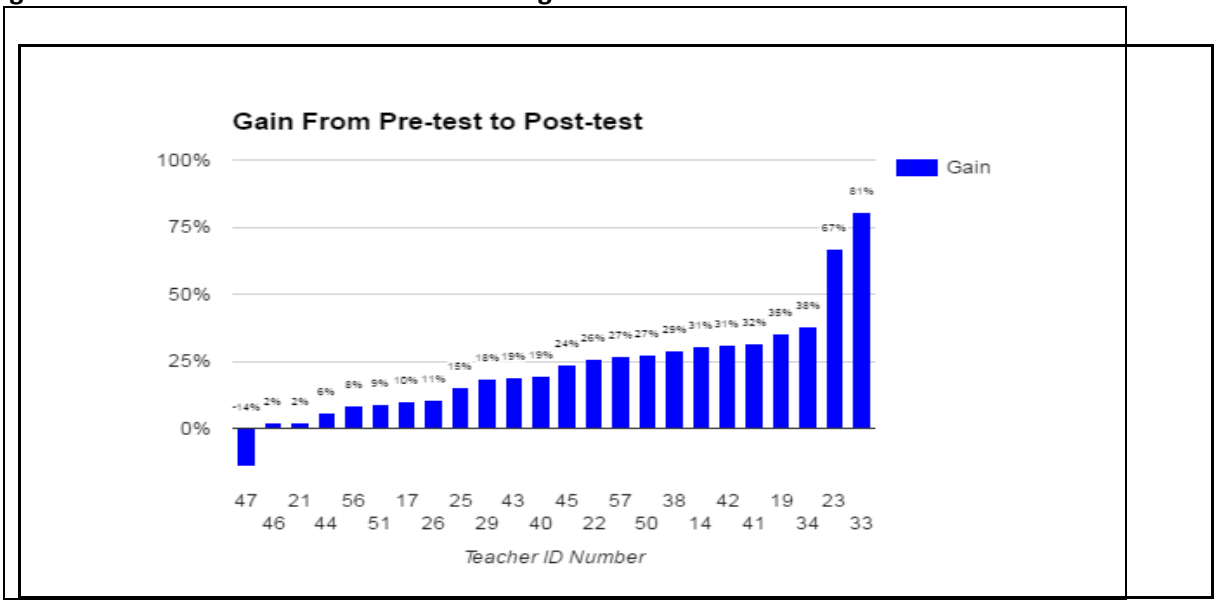
One hundred twenty-five teachers in grades Kindergarten (K)-5 attended a full-day professional development designed to help them understand the curriculum and its instructional design. Fifty-four third through fifth grade teachers participated in a mathematical content pre-test during the professional development training. Of those fifty-four teachers, twenty-four of them completed the post-test designed to see if this curriculum helped develop their own conceptual understanding in mathematics. As an additional support, forty K-5 teachers attended an optional in-service designed to help them plan their lessons and collaborate around mathematical content.

Results and Reflection

The mathematical content pre-assessment and post-assessment were developed by The Nevada Mathematics Project (http://nevadamathproject.com/nevada-mathematics-project/resources/). This assessment is made up of ten mathematical content questions, with each question containing multiple parts. Four perception questions were added to the pre-test and the post-test. The results of the content knowledge scores and gains are summarized in Figures 1 and 2.

Figure 1: Pre-test Post-test Content Knowledge Scores

Figure 2: Pre-test Post-test Content Knowledge Gains



The results reveal great gains in content knowledge in mathematics. Twenty-three of the twenty-four teachers completing both assessments showed gains, with half improving by 22% or more. Two teachers showed gains above 50%.

Teachers also were asked about their perceptions during the pre-test and post-test. Teachers were given four statements that asked them to select from three responses: "Not really, now and then," "Much of the time," or "Yes, absolutely, all of the time." Their responses were given a score of one to three. A not really response was given a one, much of the time a two, and all of the time a three. Table 2 shows the average of teacher response to the four statements. Averages on the pre-test and post-test reveal improvement for all four areas, meaning that teachers feel more confident in their own content knowledge, their students' abilities in mathematics, and their ability to teach math using the new materials.

Table 2: Pre-Post Perception Data

Statement	Pre-test Average	Post-test Average	Gain
I am confident in my students' ability to understand math concepts and skills.	1.91	2.13	+ 0.22
I am confident in my knowledge and expertise in math content and skills.	1.74	2.08	+ 0.34
I am confident in my ability to teach math.	2.04	2.27	+ 0.23
I am confident in my ability to teach using the new math curriculum	1.78	2.17	+ 0.39

I love how lessons and units build on each other. I love the conceptual learning taking place.

After attending the math cohort workshop, teachers reported that they felt more confident in teaching the new math curriculum. Initially, teachers reported that they were struggling with their pacing using the new materials. At the end of the training, some teachers wrote that they would be more strategic in choosing application problems and which problems students would do for practice. Others stated that they would focus more on metacognition as a result of the training and that they liked the idea of extending the debrief portion of the lesson so that their students could have time to share their thinking and their strategies. Teachers also mentioned that utilizing backward lesson planning would help them streamline their teaching in math. The increase in confidence in lesson planning allowed teachers to be able to focus on understanding the mathematical content in the curriculum. As teachers prepared to teach students math in a conceptual manner, their own conceptual understanding of the topics improved.

"I just wanted to let you know I have loved math this year and my kids love it too! My MAP scores were terrific.

As the end of the school year approached, teachers began to share success stories that included gains in MAP scores in math and that their students were persevering in problem solving and incorporating visual models into their thinking. Teachers also reported that their students had multiple strategies to use in problem solving. One teacher wrote, "…My first graders had scratch paper and actually used it because they had so many strategies to draw from. This is the first time I didn't have any kids finish in 15 minutes... They ALL took their time and worked hard." A fourth grade teacher wrote, "Just wanted to share my students' Math Map scores.... I did use our new math curriculum the entire year (with a little crunch at the end) and am very proud of my scores. Love when my kiddos' average comes in below the average target and they leave me with an average score above the target."

Conclusion

Teachers will continue to need additional support as they transition to teaching mathematics in a conceptual manner. Professional development and high quality resources that support teaching for conceptual development will remain essentials in this transition. As Ball, Hill, and Bass (2005) note in *Knowing Mathematics for Teaching*, "How well teachers know mathematics is central to their capacity to use instructional materials wisely...the quality of mathematics teaching depends on teachers' knowledge of the content."

NWRPDP Case Study: K-5 Math Curriculum Implementation Logic Model

Situation: K-5 implementation of math curriculum in Douglas County School District in order to improve content knowledge and math pedagogy.

Inputs	Outputs		Outcomes -- Impact		
	Activities	*Participation*	Short	Medium	Long
RPDP trainers Math curriculum teacher's materials, web access, manipulatives Teachers Students Administrative Expectations Substitutes Budget Training room facilities Support from Douglas County School District RPDP trainer attendance at 3 day math training PD in curriculum Content knowledge pre/post assessment 3-5 Stipends for math leaders Google classroom	K-5 fall math cohorts Lesson planning Modeling lessons in classrooms Classroom observations with feedback Classroom walkthroughs Parent informational nights In-service classes for credit 2 math leaders per elementary site • Monthly staff meetings at sites • Attendance at math leader meetings Site staff meetings Access to online teaching resources	K-5 teachers, specialists, administrators Parents	Improved understanding of the materials and their organization Improved content knowledge in math Improved comfort level with the curriculum and in use of materials Measures: Training Ratings Case Study Pre/Post Content Knowledge Assessment Qualitative Implementation Feedback (post-its)	Enhanced self-efficacy in teaching elementary math Change in instructional practice in math • Increased use of formative assessment in math planning • Increased teaching for mastery over time Measures: Case study Confidence ratings – perception data	Improvement in student achievement in math Increased graduation rate Increased passing rates in secondary math courses Increased student engagement in mathematics Measures: School, District, and State data

Assumptions:
Optional attendance vs. mandatory attendance at math cohorts
Adoption of Eureka materials by school board and DOE
Differing levels of teacher math content knowledge at the elementary level
Math competency leads to higher student engagement and increased graduation rates

External Factors:
District math scores lower than ELA scores
Adoption procedures of new materials

Case Study 2: Strengthening New-Hire Teachers' Mathematics Capacity

Introduction

"Teaching is more than imparting knowledge, it is inspiring change. Learning is more than absorbing facts, it is acquiring understanding." –William Arthur Ward

Elementary educators are content generalists, with general knowledge of grade-specific standards in multiple content areas. Elementary teacher preparation courses are not focused on one specific content area as secondary teacher programs. Elementary educators are gifted in the art of integration and planning multiple content areas; however elevated knowledge of specific content areas fall short. New hire -teacher programs must increase the level of content-specific support in order to increase teacher content knowledge, pedagogical knowledge, and teacher confidence.

In Carson City School District, elementary teachers have been implementing the Nevada Academic Content Standards (NVACS) in Mathematics for five years. During those five years, teachers have received a variety of trainings focused on implementing the standards, increasing student discourse, as well as mathematical modeling.

Instructional Context

Carson City School District serves approximately 7,500 students, 64% of which are ethnicities other than white. At the elementary level, 11.83% of students have Individualized Education Plans, 16% are English Language Learners, and 53.17% qualify for Free and Reduced Lunch.

Carson City School District's Strategic Plan guides district initiatives. The five year plan is comprised of five goals: 1) Community in Full Partnerships; 2) Engages Parents and Guardians; 3) Healthy Generations of Carson City; 4) Curriculum that Matters; 5) Exceptional administrators, teachers, and staff. Goals four and five are the focus of this case study.

Carson City is a 1:1 Mobile Device district. Currently, all students in grades three through twelve have mobile devices, either a laptop or Chromebook, assigned to them at the beginning of the year. As a Google Apps for Education district, teachers have access to a multitude of applications to supplement instruction.

This group of new hire teachers for 2015-16 varied in experience. A small group of them had two or more years of teaching experience outside the school district. Most of the teachers were new to the profession.

The math curriculum for this school district is Houghton-Mifflin, which was adopted before NVACS; hence, the lessons and materials do not always align to the standards. Teachers have flexibility in supplementing their math instruction using any reliable resource that aligns to the standards.

Initial Data and Planning

Feedback from the previous year's new hire training was used in developing the training modules for the 2015-16 school year. An additional day was added for classroom observations and supported planning time was built in to day one. The focus for day one also was modified from previous years' trainings based on feedback and evidence from math walk-throughs. Instead of diving into the history of NVACS, the training centered on the structure and shifts of the standards. Math walk-throughs were completed during the first month of school at every elementary site using the Instructional Practice Guide (IPG).

This proved beneficial in that all new hire teachers received personalized data and were able to set specific goals for the year.

Delivery of Services

All elementary new-hire teachers participated in two full-day trainings, regardless of experience. The first training day focused on the three shifts of instruction aligned with NVACS-Math, a look into assessment, supported planning time, and initial walk-through data review and goal setting. Teachers worked with site based math coaches to develop a coherent and aligned math lesson that would later be observed and include a coaching session. Time was also dedicated to identification of reliable math resources for supplementing instruction.

The second training day included classroom observations using the Instructional Practice Guide (IPG). Grade level teams observed the math block of strong math teachers in the district. After each observation, grade level teams debriefed using the IPG. Conversations also included classroom management, transition activities, management and storage of manipulatives, and effective technology integration.

In addition to the two new-hire training days, teachers had the opportunity to participate in a variety of other math focused trainings throughout the year. Optional trainings included six different classes on manipulatives, technology integration, and book study.

Results and Reflection

All participants completed two pre-assessments. The first was a self-evaluation focused on the structure and integrity of NVACS-Math. The self-evaluation was completed at the start of day one, which was after the school year started. A Likert scale was used for the self-evaluation with zero representing no knowledge at all and five representing very strong knowledge of the item.

The second pre-assessment focused more specifically on knowledge of the standards, including the mathematical practices. This assessment also was completed at the beginning of training on day one. The pre-assessment mean score was 54.3%. All participants in new-hire training completed the standards focused post-assessment at the end of day one. This was done to get immediate feedback on the content included in the training and to assess the knowledge base of the teachers after completing a variety of activities throughout the day (see Table 1).

Table 1: Standards Pre and Post-Assessment Scores

Pre-Assessment Mean Score	54.3%
Post-Assessment Mean Score	90%

A t-test was conducted to assess if the differences between pre- and post-scores were statistically significant. The result of this test revealed: $t(18)= 9.192$, $p < .001$; this means that the pre- and post-scores are significantly different, with a less than one-tenth (<.1%) probability that the results are due to chance.

Participants completed the self-evaluation survey at the end of April (see Table 2). A comments section was added to the survey in an effort to get specific feedback on how the teachers were feeling at the end of the year.

Table 2: Self-Evaluation Post-Assessment

Survey Statement	Pre-Assessment Average Score	Post-Assessment Average Score	Gain
I know my grade level standards, including the cluster headings.	3.5	4.2	+ 0.7
I know standards for the grade level below and above my grade level.	2.3	3.5	+ 1.2
I know what the three levels of rigor look like for the standards in my grade level.	3.1	4.5	+ 1.4
I know the major, supporting, and additional standards in my grade level.	1.5	4.2	+ 2.7
I know where to find reliable and aligned resources for my grade level.	3.5	3.5	No change
Representative Comments: • "I now know why all teachers [need to be] on the same page when discussing the meaning of standards." • "Another great class! Thank you so much." • "Observations were key! Everything I saw influenced my teaching."			

It is interesting to note that one area increased only .7 and another didn't increase at all. Upon further dialogue with teachers, it was discovered that some teachers rated their knowledge level high at the start of training on day one. However, as training progressed throughout the year, those teachers reflected on their true understanding of the standards and realized how much they initially may not have known. It can be assumed that the post-assessment results are more accurate than the pre-assessment results.

"I thought I knew my standards, but I really didn't until I started working with my team and shared information you gave us."

Survey results also indicated a need to continue professional development focused on identification of reliable and aligned resources. As teacher capacity for the standards increases, teachers' confidence in identifying reliable resources will also increase. Additional training opportunities for standards clarification are possible.

Conclusion

The ultimate role of a teacher is to prepare students for success beyond high school or college graduation. This can only be accomplished if teachers have strong knowledge of their own grade level standards, but also an awareness of future expectations. The Nevada Academic Content Standards in Mathematics requires students to be problem solvers, thinking critically not only about their own strategies, but about the strategies of others as well. This skill will help students be successful beyond current grade levels. Strong content knowledge is a necessity in order to facilitate such discourse in the classroom. The teachers who participated in new hire math training for the 2015-2016 school year have increased their math content knowledge and their pedagogical knowledge. They have been exposed to powerful tools that can be used to continue their growth beyond this first year in the school district.

"Rigor is not what I thought it was at the beginning of the year."

References

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NWRPDP Case Study: New-Hire Math Training Logic Model

Situation: New hire elementary teachers in Carson City need training and support in mathematical content and pedagogy in order to increase teacher confidence, effectiveness, and teacher retention.

Inputs	Outputs		Outcomes -- Impact		
	Activities	*Participation*	Short	Medium	Long
Budget NWRPDP Math Facilitators Carson City School District (Elementary New Hire Teachers) Carson City School District Math Coaches Substitute Availability	Training (mandatory New Hire training) Coaching Observations with follow-up coaching Observations of high quality math instruction with debriefing and guided planning Optional Training opportunities	New Hire teachers Math Coaches/ Interventionists Site and district administrators	Increased math content knowledge Increased pedagogical knowledge Increased teacher confidence **Measures**: RPDP Feedback Form, Pre/Post Assessment (content knowledge), Walk-through data using Instructional Practice Guide (observational data), Teacher confidence survey	Enhanced instructional practice (e.g., student discourse, mathematical modeling, rigor) Increased implementation of training goals/objectives Increased grade level collaborative matching at school sites Increased teacher efficacy **Measures**: Walk-through data using Instructional Practice Guide (observational data)	Increased student achievement Increased teacher retention Increased passing rates in secondary math courses Increased high school graduation rate **Measures**: Existing data (Carson City School District)

Assumptions
Teacher orientation and training will lead to teacher efficacy.
All new hires will be available and attend training.
Positive attitudes and beliefs about Professional Practice.
Math competency leads to increased student engagement and achievement.

External Factors
District resources
Release time (substitutes)

Case Study 3: Middle School Math Shifts and Resources

Introduction

Even though our Nevada Academic Content Standards were adopted by the state in 2010, support is still needed to shift instructional practices to reflect the content and the pedagogical intent of the standards.

Many in the teaching workforce today were taught in an environment different from the one they currently find themselves in as educators. “Sit and Get” has been replaced by collaborative problem solving through rich tasks and classroom discourse. Modeling and the creation of multiple student representations take a front seat to “watch what the teacher does and then do it the same way several times on your own.”

This case study focused on supporting middle school math teachers toward shifts in instructional practice, as well as in using a new resource for curriculum and instruction. The overall goal was to increase teachers’ awareness and implementation of best instructional practices and subsequently raise student learning and achievement. This is done through focused professional development including workshops on content and pedagogy, observations, and instructional coaching related to math content, engagement techniques and discourse.

Instructional Context:

This work was completed in a rural district serving approximately 3300 students in pre-K through high school. There is one early learning center for preschool and there are three elementary schools serving grades Kindergarten and one, grades two and three, and grades four and five. One middle school for students in grades six through eight and one four-year high school serve secondary students. The average class size in elementary grades is 26 and the average class size for secondary schools is 28.

Since all students attend the same public middle school, teachers have a wonderful opportunity to meet on a regular basis for professional development, co-planning, and to share resources and ideas. All teachers are familiar with best instructional practices as noted on the T4S® Observation Protocol, including posting and stating objectives, student engagement, instructional and verbal scaffolding, and formative assessment, to name a few of the components. Teachers all have interactive whiteboards and projection systems mounted in classrooms, and two of the math teachers have small notebook computers available for every student with internet access to use for individual lessons, independent practice, and assessments.

Students are released at 1:30 every Friday to provide time for teachers to meet for 90 minutes in professional learning communities. This precious time is used primarily for co-planning and discussion around student data but may include professional development on site or district topics.

Initial Data and Planning:

Professional development focused on strong teaching techniques and pedagogy supports teachers to improve their delivery of instruction in any content area. This work and the corresponding case study aligns with shifts in instruction using the Nevada Academic Content Standards and are named in the five high-leverage instructional practices of the Nevada Educator Performance Framework (NEPF) (high cognitive demand for diverse learners and use of discourse) currently being used as the formal evaluation tool across the state.

While teachers and students are both working hard to bolster instruction and learning, achievement scores have been low for middle school math students for several years. Because of this, support was requested by the site administrator for the goal of increasing students' math achievement. The NWRPDP learning facilitator used a planning and observation tool, Instructional Practice Guide (IPG), created and published by Student Achievement Partners that fully incorporates the shifts of the math content standards to support teachers with lesson planning, delivery, and execution for the benefit of student learning. This tool focuses instructional evidence gathered in three Core Action Areas: 1) Ensure the work of the lesson reflects the shifts of the standards, 2) Employ instructional practices that ensure all students learn the content of the lesson, and 3) Provide all students with opportunities to exhibit mathematical practices while engaging with the content of the lesson. Besides using the IPG for observation and coaching sessions with individuals, math teachers attended workshops provided by the NWRPDP learning facilitator focusing on the major works of the math content for each grade level, instructional practices including discourse and student engagement, and use of district curriculum resources.

At the beginning of the first workshop, teachers completed a self-assessment that collected perception data about how confident they felt in their knowledge and skill with math content, their efficacy in teaching math, how confident they were using the new district math instructional resource, and how confident they were in their students' math abilities. Data showed that while teachers at this grade level knew the math content (average of 3.5 on a scale of 1-4), they perceived their students as having low math ability (average of 2.3 on a scale of 1-4).

Besides meeting for professional development sessions on targeted pedagogy and content, the plan for professional development included observations and coaching sessions with each math teacher at least once per quarter and discussion during planning time with individuals and the group as a whole. Workshops were scheduled for all math educators on discourse in the math classroom, conceptual development, fluency, and customizing lessons.

Delivery of Services

Workshops were scheduled according to district goals, including two days for mathematics support. The learning facilitator met with all middle school math teachers on August 27 for a full day, focusing on the major works of grade level math standards and using district resources to develop math understanding and procedural fluency.

The focus of the second day, October 14, was developing lessons with students in mind, customizing the delivery of instruction, guided practice, and assessments. Methods for high-quality written and verbal discourse were presented and practiced as well. Teachers left with ideas for infusing more student discussion into daily practice, including the use of sentence frames, discussion stems, and open ended questions (Lamberg, 2013; Smith & Stein, 2011).

An optional professional development session was facilitated on September 10 as a follow-up to the August session. Teachers brought questions for discussion and shared possible solutions with one another. This collaborative planning session assisted teachers by providing teaching strategies to address student misunderstandings and to foresee upcoming challenges within the standards and units of study.

The learning facilitator conducted classroom observations and coaching sessions using the Instructional Practice Guides at least once each quarter with a combination of announced and unannounced visits. Coaching sessions followed each observation and provided a time for feedback, reflection, and planning.

Results and Reflection

The professional development workshops were conducted as scheduled. Workshop evaluation marks from participants on the standards RPDP evaluation were high with an average of 5 on a scale of 1-5 on several points including *the activity matched my needs, the presenter/facilitator modeled effective teaching strategies,* and *I will use the knowledge and skills from this activity in my classroom or professional duties.*

Teachers reflected that their knowledge in math and their ability to teach math increased as a result of using the district resource and sharing ideas and teaching points with one another.

Teachers completed self-reflections in mid-May paralleling the prompts asked on August 27. Results of the survey showed that teachers see students' mastery of math concepts and skills a bit higher than what they thought at the beginning of the school year (2.6 out of 4).

Teachers identified a few specific areas for math support for next school year including ways for students to productively show and share work, understanding the concepts and skills around using proportions, and incorporating technology, including use of Chromebooks, into math instruction.

Observation and coaching sessions provided a time for teachers and the learning facilitator to discuss planning, lesson delivery, and student learning. Positive rapport supported conversations and shifts aligned with the Core Actions in the Instructional Practice Guides.

Table 1. Core action teacher observational ratings in the Instructional Practice Guides; Core Action 1 measured in % of YES or NO, Core Actions 2 and 3 measured on a scale of 1-4.

Core Actions		Oct, 2015	Apr, 2016
1 A	The lesson focuses on the depth of grade-level cluster(s), grade-level content standards or parts thereof.	100%	86%
1 B	The lesson intentionally relates new concepts to students' prior skills and knowledge.	100%	100%
1 C	The lesson intentionally targets the aspects of rigor called for by the standard being addressed.	100%	100%

Core Actions		Oct, 2015	Apr, 2016
2 A	The teacher makes the mathematics of the lesson explicit by using explanations, representations, and/or examples	4	3.8
2 B	The teacher provides opportunities for students to work with and practice grade-level problems and exercises.	2.6	3.3
2 C	The teacher strengthens all students' understanding of the content by sharing a variety of students' representations and solution methods.	2.2	3.1
2 D	The teacher deliberately checks for understanding throughout the lesson and adapts the lesson according to student understanding.	2.6	3.4

Core Actions		Oct, 2015	Apr, 2016
2 E	The teacher summarizes the mathematics with references to student work and discussion in order to reinforce the focus of the lesson.	2.8	3.7
3 A	The teacher poses high-quality questions and problems that prompt students to share their developing thinking about the content of the lesson Students share their developing thinking about the content of the lesson.	2	3.3
3 B	The teacher encourages reasoning and problem solving by posing challenging problems that offer opportunities for productive struggle. Students persevere in solving problems in the face of initial difficulty.	2.2	3.8
3 C	The teacher established a classroom culture in which students explain their thinking. Students elaborate with a second sentence to explain their thinking and connect it to their first sentence.	1.2	2.4
3 D	The teacher creates the conditions for students' conversations where students are encouraged to talk about each other's thinking. Students talk about and ask questions about each other's thinking, in order to clarify or improve their own mathematical understanding.	1.4	1.6
3 E	The teacher connects and develops students' informal language to precise mathematical language appropriate to their grade. Students use precise mathematical language in their explanations and discussions.	1.8	3.1
3 F	The teacher establishes a classroom culture in which students choose and use appropriate tools when solving a problem. Students use appropriate tools strategically when solving a problem.	2.6	3.7
3 G	The teacher asks students to explain and justify work and provides feedback that helps students revise initial work. Student work includes revisions, especially revised explanations and justifications.	2.2	3.4

Data revealed an increase in use of effective practices in all areas except for 2 A (see Table 1). Great gains were realized in areas of Core Actions 2 and 3, pertaining to the teacher sharing a variety of student representations and solution methods (2 C), the teacher posing high quality questions (3 A), connecting and developing informal language to precise mathematical language (3 E), and asking students to explain and justify work and providing feedback for students to revise work and justifications (3 G).

Conclusion

While teachers' use of instructional practices improved greatly according to the observation data on Instructional Practice Guides, improvement is still needed for teachers to release the responsibility to students for productive discourse to improve mathematical understanding (3 D above). Interestingly, this data reflects the request by teachers to learn more about supporting students in productively showing and sharing their work (in Results and Reflections above).

The district's goal in providing an updated mathematics instructional resource to all teachers strongly supports full inclusion of the Nevada Academic Content Standards (NVACS) in Math, including the shifts to use the Eight Standards of Mathematical Practice in all classrooms. This coherence and consistency of practice brings strong vertical alignment of academic language, instructional processes and methods, and forms the basis for collaborative conversations along with consistent structure for students and parents. By providing a resource aligned to the NVACS, teachers raised the cognitive rigor of math instruction, providing students a stronger foundation in mathematics conceptual understanding and opportunities to apply math learning in real-world contexts. These moves will strengthen students'

knowledge and skills to better prepare them for mandated norm-referenced assessments, future math learning, and real-life application.

References

Lamberg, T. (2013). *Whole class mathematics discussions*. Boston, MA: Pearson.

Smith, M., Stein, M. K., (2011). *5 Practices for orchestrating productive mathematics discussions.* Reston, VA: ASCD.

NWRPDP Case Study: ___Shifts in Middle School Mathematics Instructional Practices Logic Model

Situation: The Learning Facilitator supports professional development of teachers and classroom instruction with effective techniques for implementation in content areas, including math. This project is timely with the addition of new curricular resources in math as well as the need to increase student learning and achievement in math at the middle school level.

Inputs	Outputs		Outcomes -- Impact		
	Activities	*Participation*	Short	Medium	Long
Learning Facilitator Budget for books, subs and other resources Facilities in Churchill County School District Partners in NWRPDP and CCSD NEPF Framework	Training on ways to support Students in Making Meaning utilizing the Core Actions of the *Instructional Practice Guides (IPG)* by Student Achievement Partners. Quarterly Observations using the *IPG.* Support using Eureka Math Resources (customizing lessons)	Math Teachers (6-8) Math Teachers (6-8) Math Teachers (2-8)	Knowledge gains and attitudes regarding efficacy in teaching math Increased knowledge of effective practices in math instruction including modeling and discourse Increased Knowledge of resources available and how to effectively and efficiently use them **Measures:** -Workshop evaluations -Case Study Data including perception of knowledge and skills	Implementation of Workshop Goals including use of student discourse Increased collaboration and communication in CCMS Math Dept Teachers **Measures** -Student Work- Mid-Module and End of Module Assessments	Increase in Observation Data of effective pedagogy (IPG) Increase in perception data on efficacy in teaching math **Measures** -Increased number of students meeting growth targets in math as measured by NWEA MAP data (fall to spring) -increase in IPG data -staff surveys

Assumptions

- Continued funding
- Positive attitudes and beliefs about instruction based in conceptual understanding, application, discourse
- Positive intention to use the NEPF framework as a way to improve/enhance instruction
- Effective Math Instruction is evidenced by the *IPG*

External Factors

- Time for workshops and observation/coaching sessions
- Interest and 'buy in'
- Purchase of curriculum resources

Case Study 4. Learning Brought to Life with Project Based Learning

Introduction

> *"PBL allows students to be active learners and thinkers in rigorous standards based instruction and problem solving within relevant and authentic contexts."* – Elementary School Principal

Project based learning (PBL) affords students an opportunity to learn and apply the six dimensions of 21st Century learning (Collaboration, Knowledge Construction, Real-World Problem Solving and Innovation, Use of Technology for Learning, Self-Regulation, and Skilled Communication) while digging deeply into academic content aligned to the Nevada Academic Content Standards (NVACS). A focus for the STEM/PBL Learning Team in this case study was to integrate PBL with the NVACS Science standards, based on the Next Generation Science Standards (NGSS), so students and educators could experience the natural connections between STEM and PBL. The emphasis on inquiry provided opportunities for student-centered learning that is relevant to real-world problems. One key component of PBL is the inclusion of community member expertise to expand the real-world context and enhance the learning experience.

> *"My favorite part of our project was being able to present what we learned to the students at UNR. I will never forget that opportunity."* – Middle School Student

In order to build a deep understanding of the PBL Project Design Elements and their impact on teaching and learning, the STEM/PBL Learning Team was designed to create a space for educators to engage in PBL design and instruction through a constructivist approach modeling the PBL Gold Standard method of teaching "in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an engaging and complex question, problem, or challenge" (BIE, 2015). The goal for learning team members was to develop a community of learners across school sites who support teaching and learning through collaboration, reflection, and feedback. The overarching goal for the project was to create sustainability for PBL to support teaching and learning in the STEM disciplines. The essential questions that drove the STEM/PBL inquiry were:

- What makes a project worth doing and how do we know?
- How might the "Gold Standard Elements" inform all of my instructional practices?

Instructional Context

The professional learning for the STEM/PBL Learning Team took place in the second largest school district in Nevada. The demographics for the total enrollment show the diversity of students enrolled in the district (Table 1).

Table 1. Training district student demographics

District Demographics 2014-2015							
	Ethnicity						
Total Enrollment	Am Indian/ AK Native	Asian	Hispanic	Black	White	Pacific Islander	Two or more Races
63,108	1.64%	4.3%	39.54%	2.34%	45.65%	1.07%	5.06%
Source: Nevada Report Card							

Educators from TIF3 and TIF4 schools (schools receiving funds from the federal Teacher Incentive Fund grant) were invited to participate in the year-long STEM/PBL Learning Team. The elementary, middle, and high schools included in the invitation included sites designated Title I and schools not receiving Title funding. The only prerequisite was for participants to have already received the PBL101 workshop training. A mix of teachers and coaches signed up for the training, representing students from Kindergarten to 12th grade (Table 2).

Table 2. STEM/PBL Learning Team Participants

STEM/PBL Learning Team Participants			
Grade/Assignment	**Number of Educators**	**TIF3 Grant School**	**TIF4 Grant School**
K-3 grade	7	6	1
4-6 grade	11	5	6
7-8 grade	0	0	0
9-12 grade	1	0	1
Elementary STEM Implementation Specialists	4	2	2
High School STEM Master Teachers	2	0	2

The STEM/PBL Learning Team supported the district strategic plan through implementation of rigorous instruction designed using NVACS. College and career readiness skills were honed by students engaging in, reflecting on, and being assessed on their use of the 21st century learning competencies. The instructional design also asked educators to seek to engage community members in their classrooms.

Initial Data and Planning

The STEM/PBL Learning Team met six times throughout the year for a full day as a cohort from August - May. Participants were subbed out for the whole group meetings. The facilitation of the professional learning included engaging in project design, reviewing video exemplars, determining publication criteria, providing critique and revision, and implementing STEM/PBL instruction in their classrooms between cohort meetings. Small "Critical Friends" groups were formed to provide on-going support to learning team members and offered a way for participants to engage in critique and revision protocols. The anticipated outcomes at the end of the school year included participants sharing their learning and their students' experiences at a PBL Showcase, an event open to the public and all stakeholders. In addition, participants published implemented projects online to provide resources for other educators interested in utilizing PBL in their classrooms. Participants received stipend monies for the project publication and critical friends work completed outside of contract hours.

Delivery of Services

In February, an additional classroom visit was added to the initial professional learning plan to focus teachers on using the Gold Standard Elements throughout instruction (beyond project implementation). Participants selected the date and time for the 30 minute visit along with the area of focus based on the Gold Standard Elements. The visits were scheduled between February and April.

Another element added to the professional learning was a video-taped lesson for reflection. Participants were provided with cameras and asked to film a 20-30 minute instructional sequence and watch it once prior to the next cohort meeting. At the March cohort meeting, participants were guided through a self-reflection protocol based on Jim Knight's work in *Focus on Teaching*, but modified to align with the PBL

Gold Standard Elements. The videos were only viewed by the teachers being filmed and used as a resource for reflection.

Results and Reflection

At the final cohort meeting in May, STEM/PBL participants were given a retrospective survey in order to gather data about implementation of the PBL Gold Standard Elements and how participation in the learning team contributed to their change in implementation. A Likert scale from one to five was used with 1 being "not at all," 3 being "somewhat," and 5 being "very much." Twenty participants completed the survey and the results are shown below in Table 3. The area where participants showed the greatest impact on implementation was using reflection in their instruction. Utilization of sustained inquiry is an area where participants had the smallest change. Participants were also asked how their participation in the learning team impacted their role at their sites and some of the qualitative data is shared below in Figure 1. At the PBL Showcase, STEM/PBL Learning Team participants shared their learning with stakeholders. More than 240 people attended the showcase which included videos, display boards, robotics, and two panel discussions. As a result, there are currently 23 projects being published online to share with all teachers.

Table 3. Training participant perception of change in implementation of STEM/PBL

PBL Gold Standard Element	**To what extent has your participation in the STEM/PBL Learning Team contributed to any change in implementation?** *(participants were instructed to leave this area blank if their implementation had not changed)*				
	Not at all		**Somewhat**		**Very Much**
1. Using knowledge, understanding, and success skills to design instruction			12%	43%	43%
2. Using a challenging problem or question aligned to learning goals			11%	47%	41%
3. Providing opportunities for sustained inquiry and student questioning	5%	5%	5%	35%	50%
4. Bringing relevance to instruction that allows students an authentic context and real-world connection.			12%	43%	43%
5. Creating opportunities for student ownership of learning through voice and choice.			.05%	36%	57%
6. Using thoughtful reflection during and post instruction, so students can reflect on their learning and experience.			10%	35%	55%
7. Providing students opportunities to give and receive feedback about quality and process during learning.			15%	36%	47%
8. Creating opportunities for students to share their learning with a public audience outside their classmates.			11%	33%	55%

Figure 1. Participant Comments on participation in the Learning Team

How has participation in the STEM/PBL Learning Team impacted your role?

- *"I am better able to integrate subjects to teach content using relevant, rigorous and engaging problem-solving tasks"* – Elementary Mentor Teacher
- *"Changed my role from 'lecturer' to 'facilitator' – stand back, watch, assist, guide, but not answer to allow for student self-discovery."* – High School Classroom Teacher
- *"I have used the Gold Standards across my teaching. They are incorporated into my best practices."* – Elementary Classroom Teacher
- *"It has helped me with the reflection process by providing resources, and made me realize when I'm interfering too much rather than coaching."* – Master/Mentor Teacher

Conclusion

The most lasting impressions from participating in the STEM/PBL Learning Team are the numerous accounts of teachers being surprised by what their students could accomplish when engaged in an authentic problem solving task. Also, the voices of the students themselves revealed how fortunate they were to be able to participate in this type of learning. Thus, the question becomes one of how can we continue to expand the capacity of educators to increase the impact on student learning in Nevada.

References

BIE - Buck Institute for Education (2015). http://bie.org/

NWRPDP Case Study: STEM/PBL Learning Team Logic Model

Situation: In collaboration with the Washoe County Teacher Incentive Fund grants, provide professional learning to extend educators' Project Based Learning experience.

Inputs	Outputs		Outcomes -- Impact		
	Activities	*Participation*	Short	Medium	Long
• Staff • Budget • Partnerships (TIF3, TIF4, BIE) • Resources	• Determine scope and sequence of professional learning • Identify vetting protocols for PBL projects • Coordinate classroom visits at during course of learning team calendar • Designate publishing criteria for sharing projects digitally	• Invite past PBL101 participants to join year-long learning team	• Increased in PBL project designs and use of critique and revision feedback from colleagues. • Increase in implementation of the designed projects and data gathered from students. **Measures**: Observation Participant Logs Teacher/Student reflection.	• Increased collaboration across school sites. • Increased use of the "Gold Standard Elements" of PBL in instruction outside of project implementation. **Measures**: Evaluations, reflections, interviews, and classroom observations.	• Increased understanding of the PBL Project Design Elements and their impact on teaching and learning. • Increased sustainability for PBL to support teaching and learning of the STEM disciplines. **Measures**: Publication of vetted projects on website, evaluations, participation in the PBL Showcase.

Assumptions
This project requires a year commitment to professional learning which includes designing projects, implementing them in classrooms, and collaborating with colleagues. It is assumed all participants will follow through with the commitment.

External Factors
Participation/interest in a climate of "initiative fatigue" along with available substitutes for coverage during learning team meetings due to shortages are the major external factors impacting this project.

Case Study 5: Hands-on Life Science Learning: NVACSS (based on the NGSS) Supported by the Great Teaching and Leading Fund Grant for 2015-16

Introduction/Abstract

The focus of introducing and training on the Nevada Academic Content Standards for Science (NVACSS) is of great importance for Nevada teachers. The updated standards are based on the Next Generation Science Standards (NGSS) and were adopted by the State of Nevada in May of 2014. At that time, teachers were surveyed and it became clear that they understood very little about how to interpret the new standards. Based on this feedback, the two NWRPDP science and STEM facilitators worked together with regional staff to research, author, and submit a Great Teaching Leading Fund (GTLF) grant proposal for K-8 teachers in the northwest region. Funding of state grants such as the GTLF grant are intended to help meet the mandate of Nevada law that requires the standards to be implemented in schools within two years and that teachers receive the professional development necessary to implement them in their classrooms.

With the grant application acceptance in August 2015, the NWRPDP facilitators worked to design, prepare, and implement grade level specific trainings for two cohorts in the area of Life Science. Each of the two cohorts, of nine grade level specific groups, received three full days of instruction. Cohort 1 received training from December 2015 through February 2016 and Cohort 2 received training from March 2016 through May 2016, culminating in a two-day summer follow-up/networking opportunity on Friday, June 3rd, and Saturday, June 4th, 2016.

Instructional Context

Nevada's Northwest Regional Professional Development Program (NWRPDP) serves six Northern Nevada school districts: Carson, Churchill, Douglas, Lyon, Storey, and Washoe. The participants from each district served were: 44 Carson, 14 Churchill, 16 Lyon, 117 Washoe (total participants 191). Of the participants, 151 were K-5 teachers and 40 were middle school teachers. Experience levels of teacher participants ranged from first year novices to more than 20-year veterans.

The goal of the face to face workshops was to provide teachers the training and support required to engage students in quality science instruction that incorporated the NVACSS (based on the NGSS). Teachers gained an understanding of what science education is and how they could utilize it in their classrooms.

Initial Data and Planning

Prior to the training, participants were administered a 5-question survey about the Nevada Academic Content Standards in Science (NVACSS), based on the Next Generation Science Standards (NGSS). The pre-workshop data scores (between 2.5 and 4.4 out of 10) indicated the need for this professional development. The survey was focused on the K-8 NVACSS Life Science standards. Based on the information gleaned from the initial survey, examination of the standards was planned as well as instruction on the deeper understanding of the three-dimensional aspect of the standards: disciplinary core ideas, cross-cutting concepts, and science and engineering practices. Hands-on activities were planned for participants in collaboration with Delta Education who provided professional development support and standards-based materials through FOSS kits.

Delivery of Services

The NWRPDP trainers successfully implemented 2 cohorts of teacher trainings. Actual numbers of participants that completed the trainings were 95 in cohort 1 and 96 in cohort 2, 191 total. Cohort 1 consisted of 12 Kindergarten teachers, 19 first grade teachers, 12 second grade teachers, 13 third grade teachers, 15 fourth grade teachers, 14 fifth grade teachers, and 10 sixth grade teachers. Cohort 2 consisted of 10 Kindergarten teachers, 12 first grade teachers, 13 second grade teachers, 18 third grade teachers, 4 fourth grade teachers, 10 fifth grade teachers, 15 sixth grade teachers, and 14 seventh grade teachers.

Each grade level received instruction that consisted of training for the implementation of the NVACSS/NGSS in the domain of Life Science for their specific grade level. Each grade level received 3 days of training that included a history of how the NVACSS were developed through a basic understanding of how the standards are intended to be implemented in the classroom. Teachers studied the 3 dimensions of the standards (disciplinary core ideas, cross-cutting concepts, and science and engineering practices) and received access to resources such as science equipment (in the form of FOSS kits and other supplies) and an online component that included curriculum aligned to the standards. Also addressed were notebooking, assessments, video collections, fiction and nonfiction literature, and other ELA supports.

Finally, 125 teachers participated in the two-day conference which provided opportunities for reflection and sharing of questions and ideas among colleagues and science experts.

Results and Reflection

At the conclusion of the project, the facilitators conducted a post- reflective survey with GTLF workshop participants regarding their learning and teaching of the NVACS Science and STEM Standard (see Table 1). The 5 pre-workshop questions were again asked and participants rated themselves on a scale of 1 to 10 in terms of where they would rate themselves post-training in the following areas: 1) Knowledge of standards, 2) Teaching of standards, 3) Availability of resources, 4) Teaching hands-on inquiry-based science, and 5) Knowledge of the 3-dimensional aspects of NVACSS. The results of the Pre/Post Survey questions 1 - 5 are displayed below. Survey results from the 191 teachers revealed an average increase of 4.1 points (on a 10 point scale) in confidence regarding teaching the NVACS Life Science standards.

Table 1. Pre- and Post-Workshop Survey Item Average Ratings. Scale 1 - 10. (1 = Not at all, 10 = Yes, I feel so comfortable I could train teachers on this topic)

Question	Pre-Workshop Average	Post-Workshop Average	Average Change
1. I feel comfortable in my knowledge of the Nevada Academic Content Standards in Science (NVACSS based on the NGSS) in the DCI of Life Science.	4.0	8.1	+ 4.1
2. I feel comfortable in teaching the Nevada Academic Content Standards in Science (NVACSS based on the NGSS) in the DCI of Life Science.	4.0	7.2	+3.2
3. I have the materials / resources necessary to teach the Nevada Academic Content Standards in Science (NVACSS based on the NGSS) in the DCI of Life Science.	2.5	8.1	+5.6
4. I feel comfortable in teaching hands-on, inquiry based science that address the Nevada Academic Content Standards in Science (NVACSS based on the NGSS) in the DCI of Life Science.	4.4	7.9	+3.5

Question	Pre-Workshop Average	Post-Workshop Average	Average Change
5. I feel comfortable in my knowledge of the 3 dimensional aspects of the Nevada Academic Content Standards in Science (NVACSS based on the NGSS) in the DCI of Life Science.	3.0	7.1	+4.1
Average Change Increase			**+4.1**

An additional three questions were added to the Post-Training Survey (see Table 2: questions 6 - 8 below) to determine future use of materials and content. Average answers on a scale of 1-10 were between 8.9 and 9.6 regarding use and value of training for teachers and students:

Table 2. Post-reflective survey ratings regarding future use. Scale 1 - 10 (1 = Not at all, 10 = Yes, fully)

Question	Average Response
6. I plan on using the FOSSNG kit next year	**9.3**
7. Do you feel this training was valuable for you	**8.9**
8. Do you feel that your students enjoyed and learned quality Life Science from using the FOSSNG kits	**9.6**

Finally, all Regional Professional Development Programs in the state administer the same required program activity evaluation. The responses on the program activity evaluation reflected favorable experiences on a scale of 1-5 (5 = To a great extent) (see Table 3). All responses fell between 4.3 and 4.7. The highest responses (4.7) indicated future use of knowledge and skills in the classroom and regard for expertise of the facilitators. The next highest average (4.6) indicated increased knowledge of standards and content.

Table 3. RPDP Program Activity Evaluation. Scale 1-5 (1 = Not at all, 5 = To a great extent)

Question	Average Rating
1. The activity matched my needs.	**4.5**
2. The activity provided opportunities for interactions and reflections.	**4.5**
3. The presenter/facilitator's experience and expertise enhanced the quality of the activity.	**4.7**
4. The presenter/facilitator efficiently managed time and pacing of activities.	**4.5**
5. The presenter/facilitator modeled effective teaching strategies.	**4.3**
6. This activity added to my knowledge of standards and/or subject matter content.	**4.6**
7. The activity will improve my teaching skills.	**4.5**
8. I will use the knowledge and skills from this activity in my classroom or professional duties.	**4.7**
9. This activity will help me meet the needs of diverse student populations (e.g., gifted and talented, ELL, special ed., at-risk students).	**4.5**

The Pre/Post Surveys revealed an overall substantial increase in all areas evaluated by the survey. The post-training survey indicated that the teachers and their students were engaged by and found value from the training to motivate them to use the FOSSNG Kits during the upcoming school years. Participant responses to the program activity evaluation were all highly positive. Based on this information we believe the training was highly successful.

Conclusion

Having the opportunity to offer a grade level specific program, provide all participating teachers the materials and resources required to implement the new NVACSS, along with follow-up support sessions was critical to the overall success of this project. The main goal of the GTLF grant was to increase teacher knowledge of the standards and to facilitate them in successfully implementing the NVACSS in their classrooms. The data and teacher reflections indicated that this goal was met.

Examples of final comments from participating teachers:

- "The trainers showed a high level of understanding in the standards and how to implement instruction. The materials provided helped increase my teaching instruction."
- "The trainers have been a tremendous asset in providing training and assets to my district. I frequently seek out training from them."
- "This class really supported my teaching as I used the FOSS Life Science Kit. Through the instructor's help I was able to understand the science standards better."
- "This professional development training has been very beneficial. My science instruction has improved greatly as a result of this opportunity. My students love to explore science concepts."
- "FOSS training was invaluable to me as a first year teacher. I was given guidance and tools to teach science in a confident way. This training gave me the ability to know I reached all my students on some level. This training also gave me the guidance to plan a successful science unit using backwards planning models with goals set out straight forward. I can't begin to tell you how this helped make my first year successful."
- "Having time to go through standards and the experiments in the FOSS kit was priceless. Science is hard for me, so teaching science is something I dread! But using these kits has allowed for me to have a deeper understanding on concepts and also allowed for my students to have a deeper understanding of the science standards! Well done!"
- "Thank you! So grateful to use FOSS."
- "I'm looking forward to the next session (upon grant approval)!"
- "I really appreciated the time we were given to ask questions and reflect."
- "The instructors were very helpful with questions, finding resources, advice!"
- "Great class! Aligns with NVACSS and CCSS. Crosses curriculums- ELA and math. Students are excited to come to school to observe investigations."

"Thank you for the strategic skills you modeled and presented. I can use it in my class."

"The RPDP trainings are very useful and practical for teaching all students. I always walk away with great strategies and resources. Thank you!"

"The instructors are extremely knowledgeable and always willing to assist with needs and concerns."

HANDOUT Articles:

Science, Technology, Engineering, and Mathematics (STEM) Education
http://www.currtechintegrations.com/pdf/STEMEducationArticle.pdf

Fact Sheet: What STEM Education Is & What STEM Education Isn't
http://www.sdcoe.net/lret2/math/pdf/Fact_Sheet_STEM.pdf

Prepare and Inspire: K-12 Education in Science, Technology, Engineering, and Math (STEM) Education for America's Future
http://www.whitehouse.gov/sites/default/files/microsites/ostp/pcast-stemed-execsum.pdf

Making science elementary
http://articles.boston.com/2011-03-04/news/29339334_1_science-education-science-instruction-middle-school-level

How Science Works chart
http://undsci.berkeley.edu/flowchart_noninteractive.php

NWRPDP Case Study: Life Science Standards Logic Model

Situation: Great Teaching and Leading Fund Grant Implementation (GTLF)

Inputs	Outputs		Outcomes -- Impact		
	Activities	*Participation*	Short	Medium	Long
Standards in Science NVACSS/ NGSS standards in Life Science Introduce teachers to the intent of how the NVACSS/NGSS were designed Learning Facilitator Budget for books, subs and other resources School Facilities District Partners with NWRPDP	Teachers will be guided through the format and background of the NGSS and the K12 Science Framework for Science Education	Participation in discussion and activities based on NVACSS/NGSS Guided time to prepare science lessons utilizing the provided resources from the grant	Increase awareness of NVACSS/NGSS Increase knowledge of NVACSS/NGSS Improve attitudes toward NVACSS/NGSS Improve skills related to NVACSS/NGSS Measures: Pre/post Surveys	Increase use of NVACSS/NGSS in the classroom Increase use of NVACSS/NGSS in decision-making Increase use of NVACSS/NGSS in policies Measures: Ongoing surveys; Interviews	Improve educational, social, economic, civil, and environmental conditions Measures: Existing District and student data

Assumptions:

Participation/interest in science standards; District support for trainings.

External Factors:

- Time and teacher ability to participate
- Administrator Expectations
- State, District, and Social Site Contexts

Case Study 6: Improving Student Writing through Writer's Workshops

Introduction

"Children are vulnerable to writing instruction." Lucy Calkins

Dr. Calkins reminds us that explicit instruction in writing is essential to developing students who can write effectively across genres, subjects, and audiences. This case study focused on teachers and students in Washoe County School District during the 2015-16 school year who utilized the Teachers' College Reading and Writing Project Writing Units of Study. Fourth and fifth grade teachers at the school decided to focus on writing instruction as their primary professional learning based on a teacher needs survey that was developed based on the Nevada State Literacy Plan. Teachers identified their own areas of professional learning needs. Then, they evaluated student needs based on classroom observations and assessments. According to the observations and classroom assessments, the majority of students were significantly below grade level in writing skills. This discrepancy was later confirmed by an informative writing pretest evaluated by the standards aligned writing rubric provided in the Writing Units of Study. This group of teachers committed to implementing a comprehensive writing program for the informational genre. After participating in the explicit informative writing instruction, students improved their informational writing skills.

Instructional Context

The focus school for this case study was an urban Title I qualified school that did not receive Title I funds during the 2015-16 school year. However, the school was an identified school to receive Striving Readers support. During the 2014-15 school year there were 511 students at the school. The school had a 25% transiency rate, 16% of students had an IEP, 17% of students were ELL, and 50% of students had free and reduced lunch. The ethnic breakdown of the students was as follows: 6% of students were American Indian or Alaskan Natives, almost 6% were Asian, 36% were Hispanic, and 40% were white. The demographic information for the 2015-16 school year was similar to the 2014-15 school year.

This study focused on the fifth grade group of teachers and one fourth grade teacher. There were three teachers that taught fifth grade. Two of the teachers were using the units of study for the first time, and two of the teachers were using it for the second year. Three of the teachers were GLAD trained and one was gifted trained. Years of teaching experience ranged from 4 to 28 years. The school provided differentiated professional learning for the staff. There was a separate primary group and a second group of intermediate teachers that focused on small group instruction. The teachers in the professional learning writing group opted into the group.

Initial Data and Planning

Through observations, the site principal had identified multiple professional learning needs at her school site that included: early literacy teaching and learning, high quality small group instruction, and K-6 explicit writing instruction. Not every teacher needed all three. In order to provide differentiated professional learning, teachers were given a professional learning needs survey. The survey was developed based on the Nevada State Literacy Plan in order to align resources. The primary teachers were given a survey tailored to primary teachers and the intermediate teachers were given a survey tailored to intermediate teachers. The teachers self-reported their comfort level with teaching the literacy topics. The overall results matched what the principal had observed as professional learning needs for her staff. Partial results of the survey are in the Tables 1 and 2 below. The provided tables

display the data that was used to make the decision to provide professional learning focused on explicit writing instruction. The teacher responses indicated a need for writing instruction professional learning and support for a subgroup of the intermediate teachers.

The numbers are a 1-4 scale and indicate the following in regards to writing: A one means that it is an area of struggle, a two means that part of it is in place but other parts are a struggle, a three means that the teacher solidly has it, a four means that the teacher feels that she can teach it and share expertise during the professional learning time. The blue and orange bands indicate an area of need/focus for the teachers.

Figure 1. Teacher Self Report of Best Practice Usage for Reading and Writing Instruction

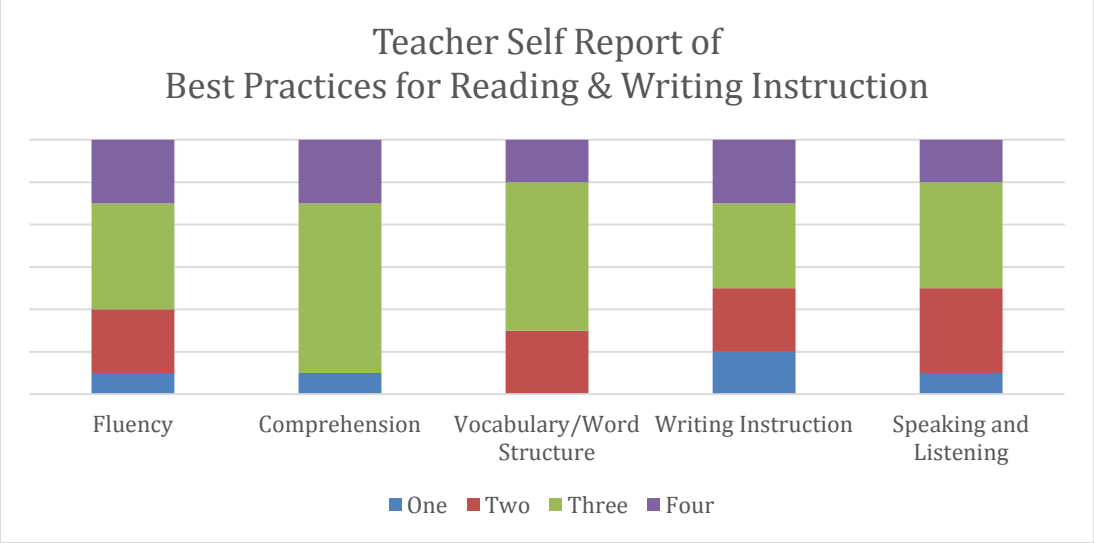
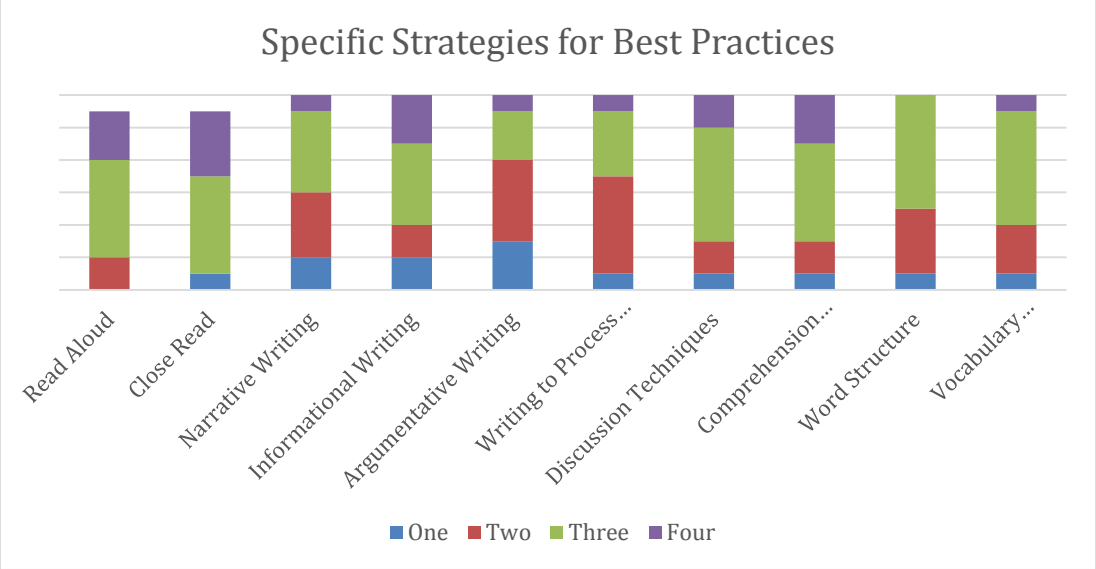


Figure 2. Teacher Self Report of Specific Strategies Usage for Best Practices



Through principal observation and the literacy needs assessment survey, it was identified that there was a need for professional learning for teachers in explicit writing instruction. Through student writing samples and teacher observation, teachers identified writing skills as an instructional concern. As a

result, the professional learning plan focused on writing instruction. Due to the time of year and in an effort to better prepare students for the demands of Smarter Balanced state proficiency assessments, the teachers chose to begin with the information genre.

In order to clearly identify and define students' writing instruction need, an on-demand writing assessment was conducted. Each student wrote to a prompt for 45 minutes. The student writing was evaluated with the Information Writing Rubric provided in the Units of Study. The results indicated that most of students were writing below grade level.

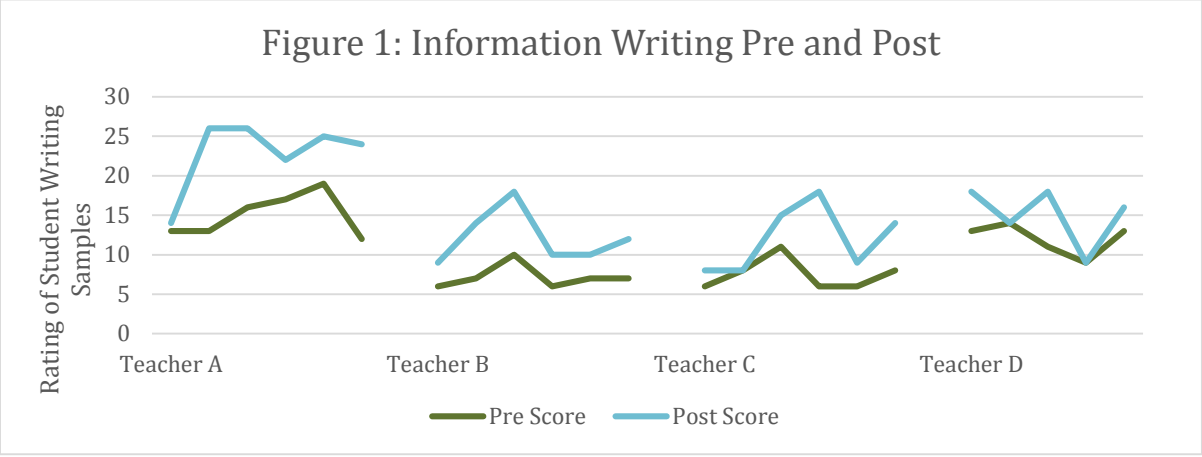
The teachers committed to implementing the Writing Units of Study for informational text in order to improve student writing skills for the information genre. The teachers received training that included Writer's Workshop format, the mini-lesson, conferencing, and small group instruction. In addition, the Writer's Workshop materials and lessons were provided to the teachers. Each teacher agreed to teach the workshop 3 times per week for 45 minutes. In addition, teachers were observed for implementation 1-2 times between training sessions and given feedback based on the Units of Study model. At the end of the unit, students were given a post-assessment writing prompt (the same as the pre) and given 45 minutes to write an informational piece.

Delivery of Services

The plan was closely followed and extended. The teachers were provided 23 hours of professional learning and 14 hours of observation, feedback, and coaching. The teachers agreed to and taught the workshop at least 3 times per week. The professional learning included the content listed above in the plan and, in addition, the opinion/argument genre professional learning was provided. The teachers decided to continue teaching using the workshop model and the Units of Study resources beyond their initial commitment. They incorporated the resources into their Student Learning Objective (SLO).

Results and Reflection

Figure 1 below shows the pre- and post-test results for a sampling of students from each teacher's classroom. The Calkins information analytic writing rubric was used to evaluate student writing. The results are raw scores where each of six points on the analytic rubric had a possible score of 1-8. The code for each point on the graph is as follows: student number, teacher, and grade. A code of 1A4 means student one in that class, teacher A, grade four. To be included in the sample, the student sample had to have both a pre- and post-test and be eligible. Then, 6-7 students were pulled at random from complete samples.



Teachers A and B were in their second year of implementing the Writing Units of Study. Observations of the two teachers during Writer's Workshop time indicated that the teachers were consistently utilizing the underlying architecture of the mini-lesson and conferencing during instruction. The graph results indicated consistent growth in students. Teacher A consistently mentored Teacher C. Teacher C struggled in the beginning with management and consistently utilizing the underlying architecture of the Writer's Workshop model. However, later observations indicated that she had resolved the classroom management challenges and more consistently implemented the model. Teacher D's graph indicated more variability in student growth. The variability was consistent with classroom observations. During times of observation, the teacher applied the elements of the model inconsistently.

Conclusion

The results of this study support two claims. First, explicit writing instruction is essential for students to become better writers. Second, with that explicit instruction, their writing will improve.

References

Calkins, Lucy. (2013). Units of Study in Opinion, Information, and Narrative Writing. Heinemann, Portsmouth, NH.

Program: Logic Model: Writer's Workshop (WW)

Situation: A K-6 elementary school principal decided to offer differentiated professional learning for her staff. The staff was given a literacy teaching self-assessment survey. The results indicated that a group of 4-6 grade teachers would benefit from a focus on writing instruction. The Writer's Workshop Model using the Lucy Calkins resources were decided on by the teachers to be used as central resources (but not limited to these). There are two cohorts of teachers: 1st year and 2nd year.

Inputs	Outputs		Outcomes -- Impact		
	Activities	*Participation*	Short	Medium	Long
Substitute Teachers Facilitator/Coach Writer's Workshop (WW) Resources (Units of Study, Writing Thief, How's it Going?, One to One) School Site for training Results of the Teacher Literacy Needs Assessment Survey	Writers' Workshop Training 3rd Wednesday of the month from September to March -Structure -Mini-lesson -Conferencing -Small Group Instruction Observation/Feedback WW time is scheduled 3-5 times a week.	4-6 Grade teachers	<u>Increased Direct Writing Instruction</u> WW time is taught 3-5 times a week <u>Increased use of Resources</u> WW structure is used as a guideline to structure writing time Mini-lessons begin each WW time Teachers confer with students Teachers work with small group based on predictable problems Observation/Feedback is scheduled at least 2X's per teacher between PD sessions **<u>Measures:</u>** Teacher Needs Survey Observation/Coaching	<u>Documented Increase in:</u> WW time is maintained 3-5X's per week WW structure is fully used Mini-lessons are 10-12 minutes consistently. Mini-lessons include all parts. Conferring architecture is used consistently in conferences All students participate in conferences Teachers work with small groups based on student writing needs Observation/Feedback indicates teacher practice includes WS strategies <u>Increased positive attitude for PL</u> Observation/Feedback is positively viewed by teachers **<u>Measures:</u>** Student writing pre/post tests Observation/Coaching	Increased student writing skills that can be applied in multiple contexts for multiple audiences Increased student achievement in writing Increased graduation rates **<u>Measures:</u>** Student writing Smarter Balance MAP

Assumptions: Direct instruction in writing will result in student writers having more writing skill. Teachers will incorporate writing instruction into their instructional day effectively with professional learning, practice and support.

External Factors – multiple district initiatives including Student Learning Objectives (SLOs). Low district reading and writing scores.

Case Study 7: Close Reading of Informational Text

Introduction/Abstract

The first and foremost objective of our education system is to create students who are college and career ready and, ultimately, lifelong learners. In order to accomplish this goal, students need to be able to create academic goals, develop metacognitive thinking, assess progress toward their goals, and independently utilize reading strategies when needed. Informational text poses several challenges for students such as lack of background knowledge, difficulty figuring out content vocabulary words, and unfamiliarity with the way that information texts are structured and how to use text features to navigate text. Close reading is one way to analyze and make sense of difficult text. Close reading can be supported by utilizing annotation strategies, answering and discussing text-based questions, and learning to look for specific questions and features of the author's craft that are evident in informational text.

The primary goal of this study will be to provide teachers the opportunity to explore the components of close reading strategies across subject areas. In addition, teachers will participate in professional development that requires them to engage in activities that allow them to discuss, practice, and reflect on reading strategies. Collaboration time will emphasize developing a positive mindset, reflecting on teaching practice, and developing instruction that incorporates self-regulation and independence in close reading.

The text that will be studied is called *Reading Nonfiction - Notice and Note: Stances, Signposts, and Strategies* by Kylene Beers and Bob Probst. Information text requires a different stance when reading. Readers must develop a critical, attentive stance. Informational text requires the reader to search for new ideas and consider unfamiliar material. Good readers approach informational text anticipating what the author assumes that a reader will know and understand. This assumption can create confusion for the reader. Once readers can identify their confusion, they are able to determine what they need to know to understand a text. One of the key aspects of the book study is to learn basic "moves" that an author uses to influence the reader. Kylene Beers and Bob Probst created five signposts to help readers recognize these "moves." The moves discussed are Contrasts and Contradictions, Extreme or Absolute Language, Numbers and Stats, Quoted Words, and Word Gaps. Once readers are able to recognize these author "moves" in informational text, they are better able to understand the important details and essential understandings of the text. Reading strategies are also practiced and discussed after reading various pieces of text.

Instructional Context

Teachers who participated in the case study were from Carson City School District, Lyon County School District, Churchill County School District, and Washoe County School District. Teaching experience ranged from first year teachers to veteran teachers. There were approximately 35 certified teachers and four substitute teachers total. Teachers come from a variety of grade levels, schools, and districts. The majority of schools were Title 1 or Title 1 Eligible.

Initial Data and Planning

The initial planning of the class came as a request from an Implementation Specialist in Carson City School District, based on requests for literacy support. In addition, close reading and reading comprehension skills needs were specified as an area of improvement in the four participating districts.

The initial training expanded across Northwest Nevada in the spring and will be repeated as a district initiative in Carson City School District in the fall.

Delivery of Services

Teachers participated in a 16-hour in-service class in the four participating districts. Teachers read the book, *Reading Nonfiction* throughout the course, engaged actively in discussion, and collaborated on how to best implement close reading strategies with their content. Teachers created close lesson plans, tried the strategies with their classes, and reflected on the quality and effectiveness of the strategies.

Results and Reflection

Qualitative data was collected in the form of survey ratings and annotations. The teacher survey results in the table below reflect pre- and post-assessment feedback about teachers' understanding of how to teach and implement informational text strategies with their students. Teachers also listed the strategies and components of the class that were most helpful in creating close reading lessons and ideas that made the greatest positive difference with their students.

Table X. Course Assessment and Feedback: 1 (Low) to 5 (High)

Question	Before	After	Change	t-score*	p value*
I have an understanding of how to teach the close reading of informational text with my students.	1.52	4.35	+2.83	15.39	< .001
I feel confident in my ability to implement close reading strategies for informational text with my students.	1.45	4.23	+2.78	16.01	< .001

* T-scores indicate that there are statistically significant differences in pre/post scores for each of the two questions. The p values indicate that there is less than a 1% probability that these significant differences are due to chance.

Qualitative data was also collected in the form of annotations. Teachers appreciated the deep discussion related to the definition of nonfiction. The variety and depth of resources were greatly valued as well as seeing the instruction and strategies presented. The concepts in the book studied impacted instruction as teachers returned to their classrooms and introduced their students to the stance of informational text, the signpost "look-fors" and the variety of strategies presented and discussed. Examples shared from fellow teachers were also beneficial. Teachers noticed that the different ideas and strategies practiced in class increased student engagement and motivation to read informational text and students were better able to comprehend and discuss important concepts that were presented. Several participants enthusiastically wrote that the in-service class was well worth their time and dramatically helped their students read and understand informational text. One excited teacher sent an email specifically relating the in-service training to student engagement, motivation, and effort.

> "After taking your training over the weekend, I decided to print out an article and have my students read it together and discuss some of the signposts and things that they noticed. I knew it would be fun and engaging, but I was impressed by the richness of the conversation that came out of it. You know those videos that show model students having a discussion about a passage

> and we all go, “Yeah right, where’d they find those kids?” – well, one of those discussions took place in my classroom today! I was so excited that I had to share with somebody.”

Another teacher appreciated the clarification of what “nonfiction” is and how to transfer this learning to her students.

> “The course helped me to implement the “truth about nonfiction” right away. The Big Idea that nonfiction means more than “not fake” helped me see that children need to be taught how to discern fact from fiction and not take everything at face value. The training made me look closer at text and helped me guide my students to do the same.”

Conclusion

In working with this group of teachers, it is evident from the data collected that close reading of informational text has become a focus. Participants became mindful and explicit about teaching critical reading and thinking skills that are needed to navigate complex informational text. Participants felt more confident about implementing close reading strategies and better prepared to support and assist their students. It was indicated that further training and planning is needed for finding and incorporating informative and expository text into literature units as well as incorporating highlighting and annotating in other subject areas.

References

Beers, K. and Probst, B. (2016). *Reading nonfiction: Notice and note- Stances, signposts, and strategies.* NH: Heinemann.

NWRPDP Case Study: Close Reading of Informational Text Logic Model

Situation: Three In-service Classes in Fallon, Dayton, and Carson City

Book study will focus on teaching informational text, considering literacy related reading issues, reading for purpose and with an appropriate stance, learning specific "close reading" techniques and teaching strategies.

Inputs	Outputs		Outcomes -- Impact		
	Activities	*Participation*	Short	Medium	Long
• Notebook with Dividers • *Reading Nonfiction: Notice and Note Stances, Signposts, and Strategies* by Kylene Beers and Robert Probst • *Text and Lessons for Content-Area Reading* By Harvey Daniels • 16 hours of instructional time	• Teachers discuss assigned text • Teachers practice 1-2 strategies/ideas and 1-2 literacy/ engagement strategies during the collaboration • Teachers brainstorm and have dialogue about implementation • Teachers may opt to work with content area to plan implementation • Teachers use content area text to develop a close reading plan • Assessment of Teacher Growth and Understanding	• Teachers from Washoe County School District, Churchill School District, Lyon County School District, and Carson School District • K-12 grade teachers and Implementation Specialists • Librarians • Substitute Teachers	Learning • Increased Pedagogical Knowledge Emphasizing Close Reading • Increased Teacher Confidence and Efficacy Measures: • Case Study • Workshop Ratings	Action • Increased use of Close Reading and Annotation Practices • Increased Teacher Collaboration/ Development of Close Reading Lessons • Phase 2 Case Study- creating instructional materials Measures: • Coaching • Case Studies	• Increased Student Achievement in Reading. • Increased Graduation rates • Increased Teacher Retention Measures: • Existing Data

Assumptions
Training will increase student achievement and be evident to the administration during the evaluation process.
Continued Funding

External Factors State, District, and Social Site

- Time and student ability
- Administrator Expectations
- State, District, and Social Site Contexts

Case Study 8: CLASS: A P-3 Initiative: Improving Classroom Interactions

Introduction

Effective interactions between teachers and students promote children's social, emotional, and cognitive development. Additionally, students thrive in nurturing, well-managed settings with frequent, engaging opportunities to learn. Increasing these positive interactions, especially in early education (PreK-3rd grade), can lead to greater achievement gains for students. The focus of this study was on the impact of increasing teacher awareness of these components and their implementations in classrooms as measured through the CLASS Observation Tool. CLASS stands for **Cl**assroom **A**ssessment **S**coring **S**ystem. CLASS measures the interactions students experience in classroom/educational settings. The interactions teachers have with children impact learning, development, and even lifelong achievement (teachstone.com, 2016). CLASS is the observation tool developed to assess these interactions, from infant care through 12th grade. Two rural primary schools and ten teachers were involved in learning the CLASS Observation Tool to improve classroom interactions and positively affect student achievement.

Instructional Context

This case study was conducted in a frontier county in Northwest Nevada in two primary schools serving PreK-1st grade students. Community demographics for 2012 show that the population was comprised of approximately 85.7% white only, 2.1% Black/African American, 5% American Indian, 3% Asian/Pacific Islander, 12.8% Hispanic, and 4% Mixed races (forwardchurchill.com). In 11% of households English was not the predominant language spoken at home, and 13.2% of the population was living under the poverty level (census.gov). In the two schools participating in this case study, there were approximately 675 students. One school was approximately 84% below the poverty rate. Both schools were Title I school-wide schools and ethnically had populations that were representative of populations in the greater community. Students in Pre-K attended school for 5 hours per day with breakfast and lunch served at the school. Children in Kindergarten and First Grade attended school for 7 hours per day with both breakfast and lunch served.

The teachers participating all served PreK-1st grade students. They had varied teaching experiences and trainings. There were 3 pre-K, 1 Kindergarten, 4 1st grade, and 2 special education teachers. The teachers' experience varied from teachers with less than one year to teachers with up to 25 years teaching experience. District initiatives had previously provided SIOP training and teachers had completed from one to three training courses in SIOP. Teachers were provided scheduled collaboration time through the provision of an early release day for students. This provision of collaboration time was tasked with data analysis, professional development, or meeting time to inform, improve, and differentiate instruction. All K-1 students participated in a common "Walk-to-Read" time that allowed for targeted reading interventions. Summer school was provided to a limited group of deficient readers.

The existing district English Learner (EL) Policy required the maintenance of a positive climate and culture that provided for safe, secure, and nurturing learning environments; rigorous, explicit, high-quality language instruction; and data-driven accountability. The 3 CLASS domains of Emotional Support, Classroom Organization, and Instructional Support complemented the EL requirements.

Furthermore, the NSLP (Nevada State Literacy Plan) is a proponent of early childhood literacy leaders to support children's emerging literacy development from birth through grade 3 by providing developmentally appropriate instruction. NSLP also calls for the coordination of Pre-K through grade 3

efforts across the state that support early literacy efforts. CLASS is a research-based assessment tool that spans all of these grades.

Lastly, the District Performance Plan for these two schools states that the district will develop and utilize professional development programs that support and improve student growth and achievement. Professional development regarding the CLASS Observation Tool provided teachers with instruction and guidance to improve student growth and achievement by increasing the effective interactions within classrooms.

Initial Data and Planning

According to the Churchill County School District Literacy Committee, Read by Grade 3 Round 1 Application Grant (2016),

The district's 3rd grade class experienced a downward trend in performance over the last three years of the state Criterion Reference Test (CRT) administration. In spring of 2014, just over half of the 3rd grade class, 56%, met proficiency. This percentage was down by 5% from the previous year's (2013) rate of 61%, and down 8% from the 2012 rate of 64%. Both the Limited English Proficient (LEP) and economically disadvantaged (FRL) sub-groups experienced a similar downward trend with LEP achieving a proficiency rate of 38% in 2012 and 35% in 2014 and the FRL group decreasing from 2012 to 2014 of 55% to 48% respectively. The Exceptional Needs Student (IEP) group achieved 27% proficiency in 2012, 33% in 2013, and then dropped to 20% in 2014. With just over half of the district's 3rd grade students meeting proficiency on the 2014 CRT, and with an awareness that *students who don't read at grade level by third grade are four times more likely to leave high school without a diploma than kids who are proficient readers* (Annie E. Casey Foundation, 2012)*,* this district fully recognizes a critical need to address its early literacy instruction" (p. 3).

In order to effect positive changes in literacy instruction, the goal was to improve the environment and instruction in these classrooms.

This case study was designed to assess the effect of increasing awareness and knowledge of the types of effective interactions that positively affect student outcomes in Pre-K-1st grade classrooms. Participants participated in two groups. Both groups attended 7.5 hours of initial training with the CLASS observation tool and were observed using the tools and then. Participants then received coaching with the data. Both groups reflected on the knowledge gained and set a goal. Participants had an option to receive an additional 7.5 hours of training using peer observation and coaching to increase knowledge and implementation of effective classroom interactions. All participants completed feedback surveys for pre/post data and received data from CLASS Observations.

Delivery of Services

This case study assessed the effect of increasing awareness and knowledge of the types of effective interactions that positively influenced student outcomes in Pre-K-1st grade classrooms. Participants completed a perception survey prior to participation and upon completion of each 7.5 hour (.5 credit) instruction phase. Teachers could participate in a variety of training options. Ten participants completed a half credit of professional development and exit surveys. Five participants completed the initial .5 credit course and an additional .5 credit course to arrive at one full credit of professional development. Participants were involved in professional development and coaching around the CLASS tool. They were observed and scored using the tool prior to the professional learning opportunities. Ten participants

attended 7.5 hours of instruction on the ten dimensions of the CLASS tool and had the opportunity to be observed and to receive individual coaching three times, once for each of the three large domains (Emotional Support, Classroom Organization, and Instructional Support). As a component of the professional development opportunity, participants were asked to reflect upon their knowledge and use of the components of CLASS and to set personal goals for growth. Perception data was taken again at the completion of the 7.5 hours of training. An additional 7.5 hours of professional development was completed by five teachers. This group conducted three 2.5 hour observation/peer coaching/feedback sessions with extended discourse, analysis, and feedback around the dimensions of the CLASS observation tool. Perception data was taken at the completion of these 7.5 hours as well. In addition, CLASS observations were conducted at the end of these 15 hours. Training evaluations, observation data, surveys, and participant comments were collected to determine success and impact of the case study project.

Results and Reflection

Both quantitative and qualitative data were collected regarding the CLASS tool. Teachers were observed three times using the CLASS protocol. Collective scores are shown below in Table 1. Additionally, perception data was collected from participants prior to, during, and at completion of the CLASS professional development. The CLASS table includes beginning data for 10 teachers. Ten teachers completed 7.5 hours of instruction plus individual coaching. The results for these 10 teachers are found in the middle column of the table. Of the 10 teachers who began the study, 5 chose to continue the study with an additional 7.5 hours of instruction in the form of instruction/peer observations/peer review with individual coaching. The third column in the following table represents the data from the 5 teachers who completed all components to include 15 hours of training with peer modeling/coaching.

Table 1. CLASS Data observation Scores

Observation Category	Pre-Training Observation Scores (Ten teachers)	Observation scores after 7.5 hours of training (Ten teachers)	Observation scores after 15 hours of training (Five teachers)
Total Emotional Support Positive Climate Negative Climate Teacher Sensitivity Regard for Student Perspective	**5.49**	**5.6**	**6**
Total Classroom Organization Behavior Management Productivity Instructional Learning Formats	**5.58**	**5.6**	**6**
Total Instructional Support Concept Development Quality of Feedback Language Modeling	**3.84**	**4.2**	**4.8**

When teachers were afforded training in all ten dimensions and observation/coaching around each of the three large domains, all scores increased as an average. Emotional Climate increased .11 and .51 over the course of the study. Classroom Organization increased .02 and .42, and Instructional Support increased .36 and .96 respectively. The greatest increase was in Instructional Support, which was the area of particular concern for the teachers as a whole.

Likewise, participant perceptions reflected in Table 2 below uses a common set of questions at all points *(same questionnaire given at different points in study). Questions were given to all ten teachers at the beginning. At the mid-point, where all 10 teachers had completed 7.5 hours plus scoring and individual coaching, the questionnaire read, "At the beginning I rated….., now I rate…..," for all of the questions. This same question bank was used with the 5 who completed the additional 7.5 hours to include peer observation/coaching/review.

Table 2. Participant Perception of Class Components Prior, During, and After Professional Development (Average Score 1-5 with 1 as Low and 5 as High)

Beginning Perception	Beginning perception taken after 7.5 hours	Beginning perception taken after 15 hours	**Average beginning perception**		**Ending Perception**	***Average Change/ % Change***
1.55	1.58	1.5	**1.54**	I have an understanding of the CLASS Observation tool	**3.5**	***1.96/39.2***
2.27	2.41	2.3	**2.32**	I know the components necessary to be emotionally supportive in my classroom.	**4**	***1.68/33.6***
3.18	3.36	3	**3.18**	I feel confident in my ability to be emotionally supportive within my classroom.	**4.25**	***1.07/21.4***
2.72	3.17	3.25	**3.05**	I know the components necessary to be organized in my classroom.	**4.5**	***1.45/29***
3.18	3.42	3	**3.20**	I am confident in my classroom organization system.	**4**	***.8/16***
2.64	2.71	2.75	**2.70**	I know the components necessary to provide a high level of instructional supports for students.	**3.5**	***.8/16***
3.18	2.46	2.75	**2.80**	I am confident in my ability to provide a high level of instructional supports in my classroom	**4**	***1.2/24***
3.5	2.83	2.75	**2.93**	I am confident that I provide high quality interactions for students in my classroom.	**4**	***1.07/21.4***

Teachers were asked to rate their level of attainment on the above questions using a 1-5 scale with 1 being low and 5 being high. The questions were asked at the beginning of the case study. Upon finishing the first course and observation/coaching rounds, teachers completed the questionnaire again with the directions to first rate themselves where they thought they should have scored at the beginning and then to rate themselves where they were on that date. This perception survey was again given at the completion of the case study. Perception data showed an increase in knowledge and confidence in providing components of the CLASS tool within their classrooms. Greatest gains were seen in overall understanding of the components of the CLASS Observational Tool. Teacher perception was that they better understood all three of the overarching domains of CLASS. Teachers also felt their confidence in providing quality interactions as measured by CLASS increased, although the increase in confidence did not match the confidence in knowledge.

Teachers were given multiple opportunities to provide feedback throughout the case study. Some comments were as follow:

> *This is an interesting new tool! We got relevant, timely feedback using CLASS that will help us grow as educators.*
>
> *The CLASS protocol is a great tool to reflect on how to build a positive environment and strengthen interactions. Understanding it can help me better (more objectively) reflect on my practices.*
>
> *My only recommendation would be that I wish this class had more sessions. One session per domain was good, but left little time to bring it all together.*

Overall, teachers felt value in learning this tool. The data represents growth both qualitatively and quantitatively.

Conclusion

The data collected demonstrated an increase in content knowledge, confidence, and application of some of the types of effective interactions that positively affect student achievement. As a result of training, teachers increased their awareness and understanding of the specific need to shift classroom practices to reflect more positive interactions within the CLASS domains. Furthermore, teachers were able to participate in peer observation and coaching around the CLASS domains and to act as peer models for each other and within their buildings. The overall perception of using CLASS to improve classroom interactions was positive.

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www.Forwardchurchill.com

www.census.gov

NWRPDP Case Study: CLASS: A P-3 Initiative Logic Model

Situation: Classroom interactions are a critical indicator in student achievement and outcomes. Engaging teachers in professional development, coaching, peer coaching, collaboration, reading and productive discourse will increase positive classroom interactions and positive outcomes for students.

Inputs	Outputs		Outcomes -- Impact		
	Activities	*Participation*	Short	Medium	Long
CLASS Observation Protocol Training and Certification (Pre-K, K-3) Budget Partnering Schools (training location and teachers/administrators/ participants)	Pre Assessments Trainings/in-services Teacher Peer Observations Coaching and Collaboration Developing and/or finding resources Advocate for teacher awareness and understanding of the specific needs of students in PreK -1st grade classrooms Advocate for improved classroom interactions for PreK-1st grade students. Development of resources for teachers Data Collection Post Assessments	Teachers and Administrator(s) Support Staff	Increased content knowledge of indicators of effective interactions in the classroom. Enhanced pedagogy (Enhancement of/shift in usage of effective teaching practices/ methods for primary students). Increased opportunities for Teacher Leadership (Knowledge of CLASS/collaboration focused around CLASS tool). **Measures:** Pre/Post CLASS data Pre/Post Survey Anecdotal/Reflection Notes	Enhance Instructional practice Implementation of CLASS behavioral markers Increased teacher support, confidence, and competency Enhanced Teaching Self Efficacy Increased teacher interdependence through collaboration between grade level and vertical teaching teams Enhanced Administrator awareness and feedback around effective interactions for positive student outcomes **Measures:** Future: CLASS data, NEPF	Increased Student Engagement Enhanced student achievement -Close achievement gap -Read by 3 Improved teacher interactions and instructional practices Increased teacher efficacy Increased leadership competencies Increased teacher retention **Measures:** School and Classroom based data CLASS data NEPF Mentoring Capacity/Sustainability

Assumptions:
Training Classroom, Staff to train, Materials and Supplies, Growth Mindset

External Factors
Continued participation in CLASS Observation protocol,
District and School initiatives,
Continuation of collaborative teacher opportunities

Case Study 9: Observing for Change over Time in the Classroom

Introduction

Marie Clay's book, Change Over Time, emphasizes careful watching of children in order to see "change over time" in students. This idea became the impetus for a model of classroom observation for teachers participating in Years II and III of the NWRPDP/NELIP Early Literacy Cadre.

It was noted by Muir and Beswick (2007) that professional learning should be grounded in teachers' learning and reflection on classroom practice. Lovitt and Clarke (1988) found that success was more likely to occur if this learning took place as close to the teacher's own working environment as possible, provided opportunity for reflection and feedback, involved a conscious commitment by the teacher, and used the services of a consultant and/or critical friend.

Learning from other teachers is an important means of professional development. A good teacher is always becoming a better teacher and one of the most powerful ways to do this is to observe other teachers. According to the University of Minnesota Peer Observation Guidelines (2013), "formative peer observation assists in the improvement of teaching" (p. 1). According to Freeman (1982),

> Development, on the other hand, focuses on the process of reflection, examination, and change which can lead to doing a better job, and to personal and professional growth. Development assumes that teaching is a constantly evolving process of growth and change. It is an expansion of skills and understanding, one in which the teacher is responsible for the process. (p. 21)

Likewise, Bilash (2009) observed, "Teachers are forever reflecting and making decisions, and when they see someone else in action, in as much as they are seeing someone else, they are almost simultaneously seeing themselves" (p. 1).

The goal of the NWRPDP/NELIP Early Literacy Cadre(s) was to refine and increase teacher effectiveness through observation, thereby increasing student achievement. Participants in Cadre Years II, and III observed for a morning in the same model classroom three times a year in order to watch for change over time in classroom environment, teacher practice, and student practice. Reflective dialog took place during the afternoon with the classroom teacher, observing teachers, and the NWRPDP Learning Facilitator. Teachers used an observation tool to document what they saw occurring within the three focus areas and to reflect on the changes occurring (or not occurring) in their own classrooms over time.

Instructional Context

Observing for Change Over Time took place at four elementary schools within Washoe County School District. The four schools represent a diverse socio-economic climate and ethnic make-up: School A was a Title I school with a 74% minority population (majority Hispanic) and 99% free and reduced lunch, School B was a low to middle income school with a 56% minority population and 53% free and reduced lunch, School C was a middle to upper income school with a 24% minority population and 13% free and reduced lunch, and School D was an upper income school with a 14% minority population and 2% free and reduced lunch. A total of ten teachers representing these schools participated in the observation process. Four of the ten participants worked at Title I schools, one taught at a private school, and the others taught at middle income schools.

Data and Planning

This qualitative and reflective case study used classroom observation to deepen teacher understanding of classroom, teacher, and student change over time that facilitated learning and habituated teacher self-reflection and goal setting. The emphasis was on classroom and teacher change to meet the change in student acquisition of knowledge and skills. Dialogue was focused on thinking about the model classroom teacher's classroom environment, instructional decision making, and the students' learning over time in comparison to one's own classroom. Teachers internalized a dialog: What can I take away today that will change my practice and thus accelerate student achievement? An observation reflection documented change in teacher practices, student understanding and classroom environment.

Delivery of Services

Nine three and a half hour classes occurred after school between August, 2015 and May, 2016 in the North Training Room at RPDP's Edison facility. Three classroom observations at the beginning, the middle, and end of the school year followed by reflective dialogue occurred throughout the training year.

Results of Qualitative Reflection

At the conclusion of the series of workshops, observations, and debriefs, participants were asked to consider how the information would impact their classroom management and teaching as well as their students in the future. Teachers identified specific ideas to incorporate into their classrooms and indicated an increased awareness of how to raise student metacognitive practices and independence. Table 1 below represents a sampling of the consensus of teacher responses.

Table 1. Consensus of Teacher Responses

Question	Consensus of Teacher Responses
1. How this professional development observation activity promoted behavioral intent to change classroom management and teaching:	"For next year, I am looking into flexible seating. I also want students to take more ownership of materials and have them more accessible at all times" "…more student written posters, more interactive writing, cover phonics during interactive writing". "Better flow/transitions" "Work with lower students more often and for a longer period of time". "How to use non-fiction books to write 'facts and articles'." "Better use of student writing. Less waiting for all."
2. How these changes might affect my students:	"…become more independent, be able to self-monitor, be in charge of their own learning, increase confidence." "…increased responsibility to self-manage, better focus as transitions are quick!" "…form connections to no-fiction text and daily life (self)". "More engagement and student buy-in." "I hope to be more relaxed and enjoy teaching, if it really is about the kids, then I need to get back to enjoying them and watching them learn and grow."

Conclusion

Observing master teachers and processing how new strategies and techniques can improve teacher performance can be an important component of teacher growth. In this case study, teachers became careful observers of best practices from master teachers in order to improve individual teaching practices and thus improve student learning.

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NWRPDP Case Study: Observing for Change Over Time

Situation: Early Literacy Cadre Year II and III observe master teachers three times during the year watching for change over time.

Inputs	Outputs		Outcomes -- Impact		
	Activities	*Participation*	Short	Medium	Long
• Staff - Facilitators and support staff • Budget – sub money	• Year II – Three classroom observations with debriefs • Year III – Three classroom observations with debriefs • Observation form after each visit	• 5-10 PK-2nd grade teachers • 5-7 PK-2nd grade teachers	• Increased knowledge of best practice in the early grades. • New awareness of observing students, the classroom environment and teaching. • Motivation to make changes in their classroom practice. • Collaboration with peers focusing on change over time. Methods: Classroom observation; Teacher reflection papers	• Increased use of strategies observed in classroom environment, and teaching. • Increased reflection on teaching practice • Increased reflection on decision making within the classroom and teaching. Methods: Classroom Observation	• Changes in classroom practices • Increased literacy of students whose teachers participate in Early Literacy Cadre II and III. Methods: Interviews; student achievement data

Assumptions: Continued funding, positive attitudes and beliefs about professional practices, reflective practice will develop through observations and exposure to best practice. For Years II and III after observing for two years for change over time teachers will be more comfortable moving into Year IV of cadre which is filming of their lessons and refection of practices within that leasson.

The national iniative for a P-3 model of education as well as the state of Nevada's Read by Three iniative have brought focus to the early grades. Knowledge of best practices in literacy for early learners and teacher competency in those practices are needed by local districts. The Early Literacy Cadre observations are a big part of increasing knowledge and competency.

External Factors- Funding, support, participation/interest

Case Study 10: Teacher Leadership Cohort – Teachers Leading Change

Introduction

Nevada has a significant issue with the recruitment and retention of effective teachers. Research shows that this growing tension has multiple contributing factors such as initiative overload, insufficient pre-service programs, assessment and accountability concerns, and general lack of professionalization of teaching, to name a few (Miles, Husson, & Berns, 2016; Morton, 2015). This concern is not a "Nevada" issue, it is a concern across the United States, begging the question, How can we attract and retain good teachers? This national conversation has launched a number of different efforts, one of which is the focus on teacher leadership. Teacher leadership has been loosely defined as educators that lead within and beyond the classroom, influencing others toward improved educational practice, and accepting responsibility for achieving the outcomes of their leadership (Katzenmeyer & Moller, 2001).

Instructional Context

The professional learning featured in this case study is from the Teachers Leading Change Cohort (formerly known as the Nevada Network of Teacher Leaders). This two-year cohort was launched in August 2015, with 23 teachers from Washoe County School District (WCSD). The project was funded by a collaborative grant application between the Northwest RPDP and WCSD for the Great Teaching and Leading Fund. The intent of the project was to build the teacher leadership competencies of participants to enable them to support the instructional practice of their colleagues. Participants in this professional learning represented a wide array of educational areas: K-12th grade, core content, special education teachers, English language learner support, and music. A variety of different types of schools were also represented from low socio-economic and low performing schools to high socio-economic and high performing sites. These demographically diverse groups of educators were also employed in a variety of different teaching contexts: classroom teachers, Teacher Incentive Fund (TIF) master/mentor teachers, data coaches, and instructional coaches. Experience ranged from three years of teaching to 26 years in the classroom. With all these factors in mind, the curriculum design team ensured that all participants had multiple opportunities to engage in learning that supported application within their own context, experience, and professional capacity.

The curriculum of this class had a broad scope and sequence ranging from leadership styles, leading during change, and developing one's own mission and vision to mentoring, observation, feedback, and coaching. Meeting twice a month for three hours each time, the embedded model of professional learning set the expectation that the participants would implement their new learning from each class and return with anecdotal evidence to share. In addition to this continuous cycle of implementation, all participants were expected to design and implement an action research project that collected evidence of impact on teaching and learning in the classroom. These action research projects were monitored on a continual basis by the three facilitators and all participants were offered feedback on an ongoing basis.

Initial Data and Planning

A needs assessment was collected by NWRPDP staff in the fall of 2014. The instrument was structured around collecting data regarding the perceived gaps in professional learning opportunities in WCSD. Data from this needs assessment informed the decision to move forward and design professional learning opportunities for the teacher leadership audience: educators already in "teacher on special assignment" positions (TOSAs) such as implementation specialists, embedded coaches, or instructional leaders; and educators who were interested in assuming leadership responsibilities but not leaving the classroom. The scope and sequence for this cohort was strategically designed to ensure participants

would be adequately prepared to assume these new responsibilities as well as to strengthen the competencies of those teachers already serving in leadership roles.

When the cohort launched in the fall of 2015, the 23 participants all took two pre-assessments. The first instrument used was a Teacher Self-Efficacy Survey, TSES (Tschannen-Moran & Woolfolk Hoy, 2001). The second tool that was used was a Teacher Leader Competencies Self-Reflection. The intent of both tools was to collect data regarding teachers' perceptions of self-efficacy in the instructional setting as well as in a teacher leadership role. The results of the TSES indicated that the participants in the cohort already saw themselves as efficacious instructional leaders. Not surprisingly these experienced teachers had a strong grasp of how to support student growth, motivation, and engagement through powerful instructional practices.

Delivery of Services

Services were delivered in two different ways, monthly meetings and two teacher substitute work-days. The monthly meetings were held twice a month from 4:00-7:00 p.m. and the two substitute days were scheduled to ensure that the teachers were offered time for reflection and collaboration with one another and to work on their action research projects.

Results and Reflection

Data collected in the spring of 2016 indicated a marked increase in the participants' perception of their ability to manage student behavior in the classroom (See Tables 1 and 2). In particular, the data show that participants of the Teachers Leading Change (TLC) Cohort felt more efficacious in calming students who were upset and in getting students to follow rules in the classroom. There was an increase in teachers' perceived self-efficacy in their ability to differentiate classroom management for all students. The curriculum of the class offered teachers the opportunity to engage in a significant amount of research regarding resistance and how to de-escalate conflict. While the content was framed for the participants in adult learning and resistance, the data may offer evidence that the learning was applied in classroom structures and engagement as well.

Table 1: TSES Results Fall 2015

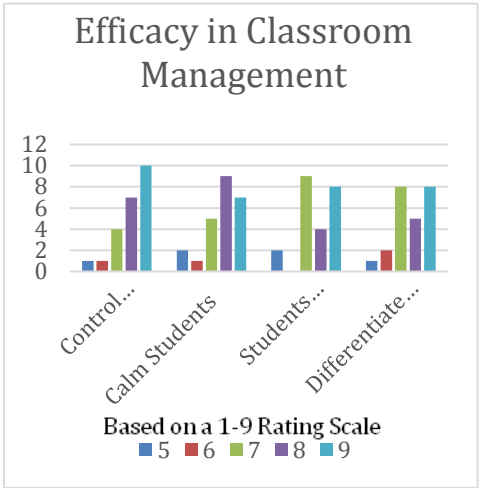
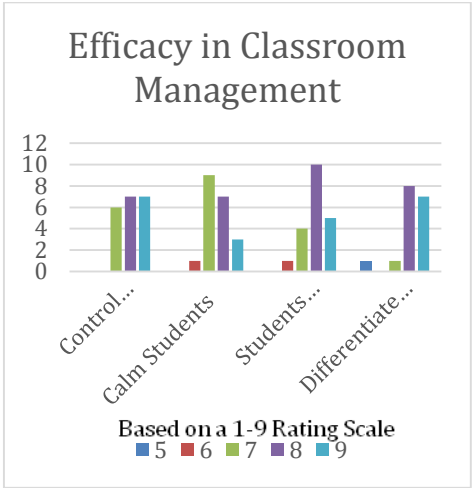


Table 2: TSES Results Spring 2016



The Teacher Self-Efficacy Survey also offered detailed data regarding teachers' perceptions of their efficacy in instructional strategies (See Tables 3 and 4). While the data were able to capture growth

across all the categories in this area, the most remarkable was in the area of questioning. In the fall of 2015, only six respondents indicated the highest level of efficacy on this item. In the spring 2016, the number of teachers doubled, with 12 respondents indicating that they felt they were efficacious in using questioning as an instructional strategy. The intentional design of the 45 hours of learning in the TLC Cohort, focused on discussion, questioning, and practical application of new learning, had a positive impact on teachers' self-efficacy.

Table 3: TSES Results Fall 2105

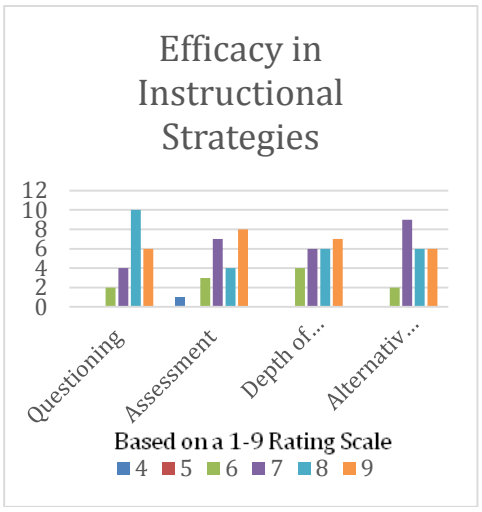
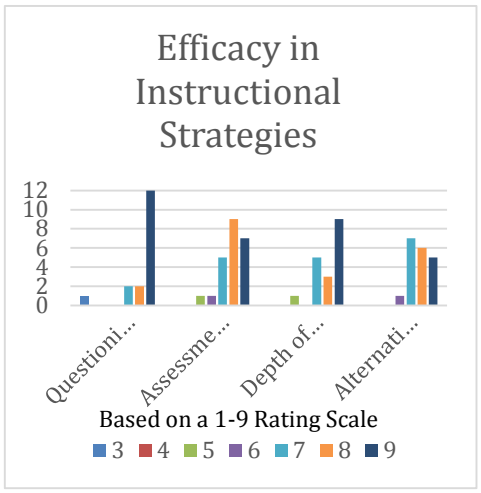


Table 4: TSES Results Spring 2016



The data collected regarding teachers' efficacy in student engagement followed the trend of the other areas assessed; an upward trend toward increased self-efficacy was reported by all respondents (See tables 5 and 6). The data regarding student value in learning and mindset were particularly interesting, as it appears that the majority of participants believed they significantly increased their ability to positively impact a student's belief that they can be successful in school. These data support research conducted by Klassen, Tze, Betts, and Gordon (2011) who found that teachers with high self-efficacy were more likely to positively impact their students' perception of self-efficacy, engagement in learning, and attitude toward adversity than educators with lower perceived self-efficacy. The data collected from the TLC Cohort participants indicated that participation in the project positively impacted teachers' self-efficacy.

Table 5: TSES Results Fall 2015

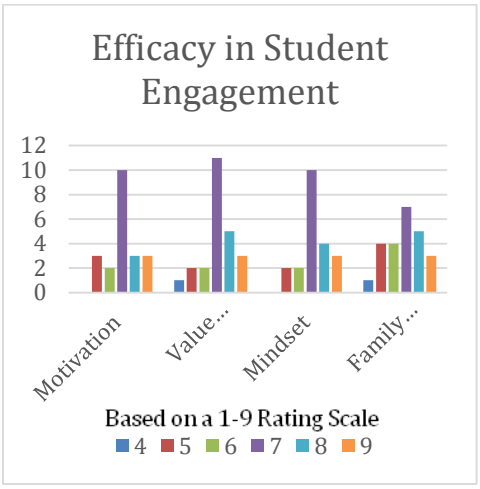
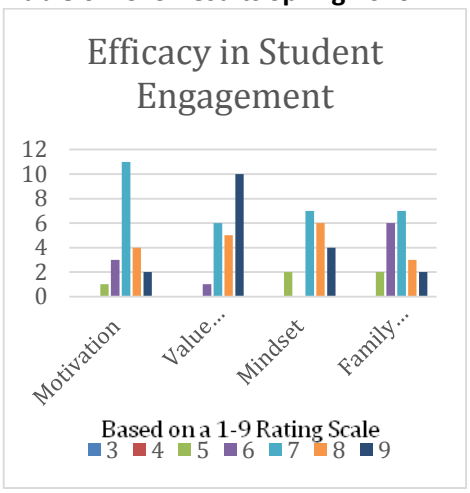


Table 6: TSES Results Spring 2016



Evaluation Comments

The comments below are examples of how participants described their learning and how they intend to apply it to their role as a teacher leader. Participants strengthened collaboration skills and the ability to advocate for positive change.

- *"I am more comfortable saying what I believe. And I love having the time to get ideas from others."- Elementary participant*
- *"I have learned the importance of being able to work with other teachers and administrators to create and be a part of change at my school." -High School participant*
- *"After collaborating with the other teachers [in the cohort], I go back to my classroom with enthusiasm and a sense of motivation to drive my students." – Elementary participant*
- *"I feel inspired by the other teachers in the room and this has motivated me to work toward the change I want to happen." –High School participant*
- *"The Cohort has helped me walk the walk, and talk the talk. I have much more credibility now." – Elementary participant*
- *"The biggest impact of the cohort is that it has given me the confidence to challenge beliefs and practices at my school that are static."- High School participant*

The data collected from the Teacher Leader Competencies Pre and Post Assessments (See Tables 7 and 8) offered a view of how teachers grew significantly in many additional areas. Technological facility, reflective practice, and personal effectiveness in particular were areas where participants indicated growth. A remarkable aspect of these assessments was captured more in the qualitative reflections of the participants. Narratives largely indicated that, upon reviewing their pre-assessment scores, participants' original self-ratings had not reflected where they actually were in the fall. Participants shared the following comments: "I had no idea how much I actually had to learn," "I didn't even realize how much I didn't know," and, "looking back now I should have had a zero in every area!" With these additional reflection comments, the upward trend of strengthened competencies identified in these results may be even more significant.

Table 7: Teacher Leader Competencies Self-Reflection Pre-Assessment Fall 2015

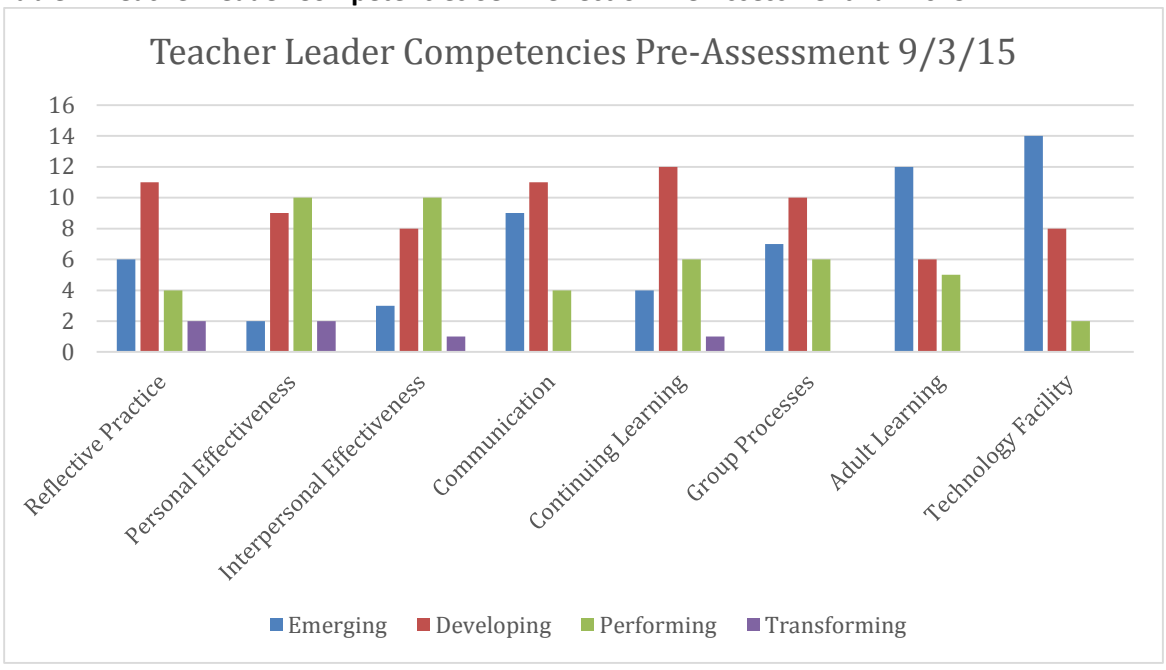
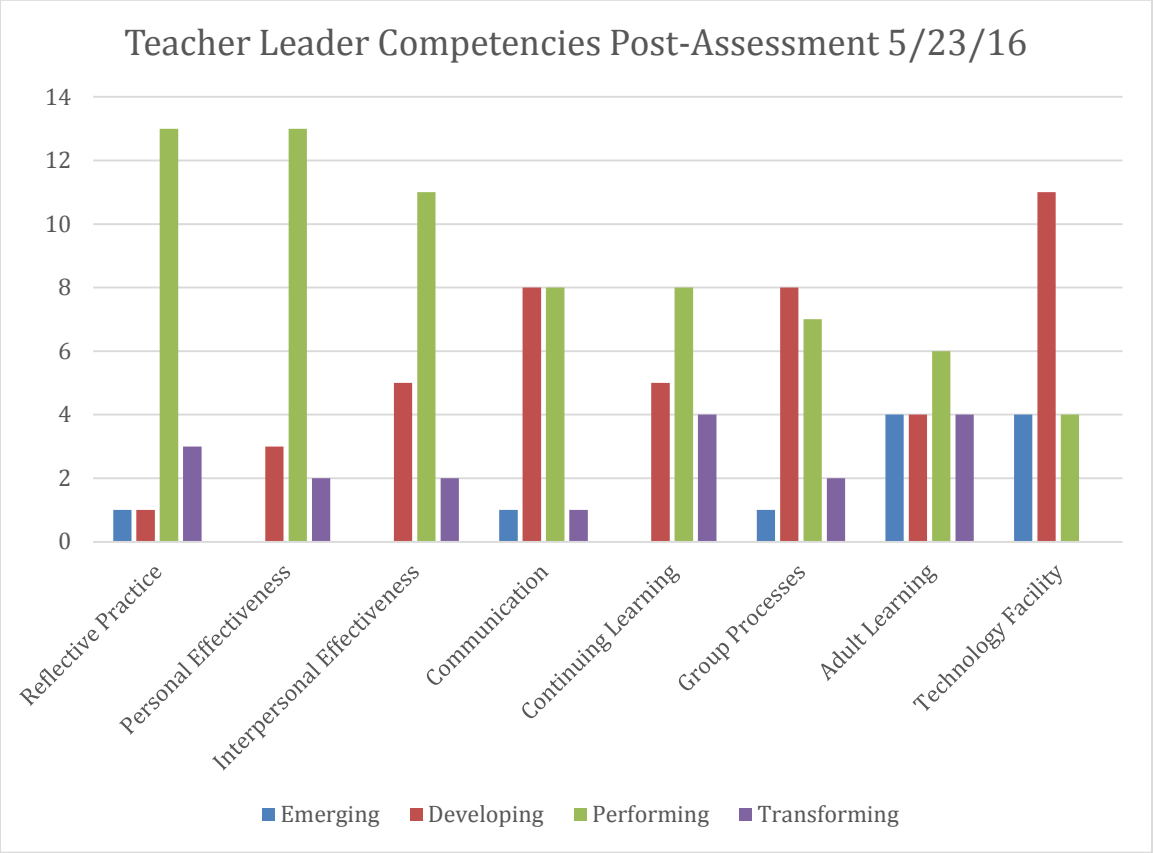


Table 8: Teacher Leader Competencies Self-Reflection Post-Assessment Spring of 2016



Conclusion

Based on the evidence collected from the pre-post assessments on the TSES, the Teacher Leader Competencies, and a variety of other formative assessments, this professional learning was successful in raising the self-efficacy and leadership skills of the participants. The intent of the cohort was to offer participants learning that would elevate their understanding of the competencies necessary to assume teacher leadership responsibilities. All the data collected indicated that this goal was achieved. In addition to their learning and growth, all participants designed action research projects that positively impacted teaching and learning in Washoe County School District. There will be a year two of this cohort, again funded by the Great Teaching and Leading Fund grant, where the action research projects will continue to be refined and build sustainability. A second cohort with 26 new participants will begin in the fall of 2016.

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Teachers Leading Change Logic Model

Situation: Leadership Development (recruitment and retention): Provide professional learning in Teacher Leadership in order to develop sustainable leadership capacity for change and improvement in schools by retaining and supporting excellent teachers and education leaders.

- Provide professional learning opportunities for teachers and other education leaders who want to be instructional leaders without becoming administrators and provide training for principals to support teachers as instructional leaders.

Inputs	Outputs		Outcomes – Impact		
	Activities	*Participation*	Short	Medium	Long
Staff - Funding - Partnerships - Facilities	Teachers Leading Change Cohort Design of Teacher Leadership curriculum Design Weebly to share information and projects 4 day Summer Coaching Institute NSEA state Network of Teacher Leaders professional development	Nevada K-12 teachers Department of Professional Learning (WCSD) Department of Professional Growth Systems (WCSD) Northwest Regional Professional Development Program Nevada State Educators Association Nevada Department of Education Nevada Network of Charter Schools University of Nevada, Reno Striving Readers Grant (Northern Nevada) WCSD Curriculum and Instruction Learning Forward Nevada	- Increased self-efficacy of Teacher Leaders. - Enhanced understanding of the roles and hybrid opportunities for Teacher Leadership inside and outside of the classroom. - Increased knowledge of the Teacher Leader Competencies and how they frame Teacher Leadership, roles, and dispositions in Nevada. These competencies include 60 hours of learning and practical application in: - Group Processes - Personal Effectiveness - Interpersonal Effectiveness - Communication - Adult learning - Continuing learning and education - Technological facility - Reflective practice **Measures:** -Pre and post Teacher Self-Efficacy Survey (TSES) - Pre and post survey to measure Teacher Leader Competences - Qualitative perception survey	- Increase the use of embedded action research designed to impact teaching and learning. - Develop an infrastructure of Teacher Leaders within each school that enhances a sustainable system of growth and development impacting teaching and learning. - Increase the number of Teacher Leaders in coaching, mentoring, and support roles that have engaged in learning on the Teacher Leader Competencies in Nevada. - Increase the curriculum design and support for Read by Three Learning Strategists in Nevada. **Measures:** - Pre and post survey to measure Teacher Leader Competencies - district data regarding number of hybrid and embedded Teacher Leader roles -Read by 3 data regarding Learning Strategist impact - Case study	-Develop a statewide Network of Teacher Leaders with enhanced professional capacity to supports teaching and learning for students and colleagues. -Increase the statewide alignment of Teacher Leadership curriculum with the Teacher Leader Competencies, roles, and dispositions of Teacher Leaders. - Create sustainable infrastructure that increases collaborative discourse about leadership, instruction, and best practices in Nevada. - Create a Network of Teacher Leaders across Nevada that enhances advocacy work of teachers to uplift teaching and learning. -Increased retention of excellent teachers. Through the process of developing teacher voice grounded in deep pedagogical and content knowledge, TLC graduates will foster professional learning environments that elevate learning forward for all Nevada teacher and students. **Measures:** -Existing district data on: retention of teachers, graduation rates, teacher satisfaction and climate surveys

Assumptions

-This project is a highly collaborative effort between NWRPDP, C&I, DPL, and PGS. If any of those partnerships were to be withdrawn this project may be difficult to implement. It is assumed that all partnerships will continue.

- This project was heavily funded by grant funds received from GTLF in 2015. There is an assumption that there will be continued support at the state level to continue growing Teacher Leadership work.

External Factors- Funding, support, participation/interest

Case Study 11: Teacher Evaluation on the Comstock: Getting Ready for the Inclusion of Student Achievement Data in the Teacher Evaluation Process

Introduction

The Storey County School District (SCSD) is in its third year of implementing new instructional materials and methods, along with interim assessments and student interventions, which align with the Nevada Academic Content Standards. This alignment, in grades Kindergarten through 8th in both Mathematics and Language Arts, fits into the core belief system of the SCSD, which is grounded in the idea that a vertically aligned curriculum is the foundation on which student achievement and growth are built.

The SCSD believes that the fundamental purpose of any school or district is to ensure that all students learn at high levels. All staff must be committed to becoming a lifelong learner to make this a reality. Collaborative teamwork and interdependence among teachers and administrators allows schools and districts to continuously improve and avoid stagnancy. To that end, staff input was crucial in preparation for the new state requirement of including student achievement data in teacher evaluations for the first time in Nevada education history for the 2016-17 school year.

Instructional Context

Storey County is a rural school district with four schools. Three of the schools are located in historic Virginia City: Hugh Gallagher Elementary, Virginia City Middle School and Virginia City High School. The fourth school, Hillside Elementary School, is located in the town of Lockwood just east of Sparks. The student population consists of approximately 410 students.

Since the inception of No Child Left Behind (NCLB) in 2002, all four schools, as well as the district, made Adequate Yearly Progress (AYP) as measured by NCLB. In 2013, 2014, and 2015, the first three years of the Nevada School Performance Framework (NSPF), all four schools were rated as 3-star schools. Despite being one of only two Nevada districts to have this level of success, academic challenges still exist due to the small, rural, and isolated nature of the district and the schools. With Nevada's transition to a school accountability system based largely on student growth, and not proficiency, Storey County moved to a blended learning model for its instructional and assessment methods.

Data and Planning

The 2015-16 year marked a hold harmless year as it pertained to student data as part of the Nevada Educator Performance Framework (NEPF). The lack of data, caused by the significant testing irregularities in Nevada during the spring of 2015, made this component impossible to assess. Therefore, student outcomes will not become part of the NEPF until 2016-17. In that year, 20% of teacher evaluations will be based on student data, with half derived from data directly related to district/school level assessments. For the first time, districts will be required to wrap student data into the individual teacher evaluation. It is projected that this percentage will increase to 40% in 2017-18.

In the first few weeks of the 2015-16 school year, the site administrators, along with the district's chief academic officer, met with each school staff. A discussion began on how the district could use student performance data, generated by the district's blended learning programs, as part of the NEPF in 2016-17. After a review of preliminary data, coupled with teacher input, it was decided that the district would develop a student performance model, to be used in 2016-17, based on results from the I-Ready interim assessments. The district adopted *I-Ready Diagnostic and Instruction* (Curriculum Associates) in 2013-14. It is a computer based program, used for both diagnostic and interim assessments as well as

remediation and extension activities. The district administers interim assessments three times a year in both ELA and Math for grades K-8. These assessments could provide both baseline data for developing student learning goals as the district measure of student learning for the NEPF as well as achievement data for the results of the goals.

In the three years of transition from AYP to NSPF/NEPF, the Storey County School District has been High Achieving-Low Growth in both Mathematics and English Language Arts. The *Ready Common Core and I-Ready* blended learning programs, coupled with *Time to Know* in grades 4-6, allow for consistent standards-based instruction and assessment across grade levels. The use of common curriculums and assessments over the past three years has allowed SCSD to build an instructional foundation that enables SCSD to reliably measure student growth and proficiency.

Delivery of Services

In order to develop a district-wide understanding of the new evaluation requirements, four full-day professional development days were conducted beginning in September of 2015. Traditionally, teachers in SCSD have examined student data individually and developed group goals in a tangible way. Therefore, because the staff is small (approximately 45 members), initial whole group discussions were held to examine data collaboratively so that everyone was included. Small group break-out sessions were also facilitated so that staff could discuss what it would look like to attach student data to the evaluation. The first two days were devoted to computing measures of central tendency for the ELA and Math *I-Ready* data for the previous two years. Teachers used the fall and spring assessments to measure median growth at all grade levels (K-8) in both ELA and Math. Additionally, a district-wide median growth was computed along with a standard deviation.

Based on this data, the Chief Academic Officer developed several potential model concepts. These models were presented to all staff in during the March professional development day. Teachers discussed the models in small groups and then presented back to the entire group. After much debate, it was decided that using the district-wide median growth offered the fairest analysis of student growth in the Storey County School District. With only 280 students in grades K-8, the sample sizes made it impractical to use a separate growth measure based on individual grade levels.

Results and Reflection

In May, the CAO presented a potential growth model to be used for the 2016-17 NEPF. It was jointly decided by teachers and administrators that data from all three years would be used to establish a district growth measure in both ELA and Math, built on a baseline developed to use for a three-year rolling average. This information will provide guidance for setting grade level or department level student learning goals (see table 1).

Table 1. Point Distributions based on Standard Deviations

Student Growth Standard Deviation Ranges	Assigned Teacher Evaluation Ratings: Math	Assigned Teacher Evaluation Ratings: ELA
> +1	4	4
Within +/- 1	3	3
-1< and >-2	2	2
-2< and >-3	1	1
<-3	0	0

Each teacher will receive a score for both Math and ELA. Those two scores might then be used as the basis for the point allocation in the teachers' final NEPF evaluation. A range for an effectiveness rating will be developed later in the year, based on a 1-4 scale. With the adoption of Student Learning Goals (SLGs) as the district measure for student growth at the teacher and administrator level, this plan will be revisited and adapted to meet the requirements of the NEPF.

Conclusion

The transition to the NEPF has been very difficult for teachers. The addition of student performance data will only heighten that anxiety. That is why the cooperative development of the student growth model was so critical. Incorporating teacher voice into the process was a significant step to increasing teacher understanding of the process, to easing the transition, and to providing context for how the new expectations would affect each teacher specifically. By engaging in this process, teachers learned a great deal about data and how to use them to track student growth in learning as related to their own evaluation. To further relieve stress, the SCSD will use 2015-16 *I-Ready* data to produce NEPF "mock-ups" for teachers. They will get the opportunity to see how the district level student data would have impacted their individual evaluations from the previous year. This mock-up will give staff the opportunity to provide feedback and input prior to going live with the student data and student learning goals in 2016-17.

NWRPDP Case Study: **Teacher Evaluation on the Comstock Logic Model**

Situation: The 2015-16 year marked a hold harmless year as it pertained to student data as part of the Nevada Educator Performance Framework (NEPF). The lack of data, caused by the significant testing irregularities in Nevada during the spring of 2015, made this component not possible to assess. Therefore, student outcomes will not become part of the NEPF until 2016-17. In that year, 20% of teacher evaluations will be based on student data, with half derived from data directly related to district/school level assessments. For the first time, districts will be required to wrap student data into the individual teacher evaluation. This professional training was developed to help prepare teachers for this change in evaluation practice.

Inputs	Outputs		Outcomes -- Impact		
	Activities	*Participation*	Short	Medium	Long
• Teachers • Budget • District support • Resources • NWRPDP Staff	• Facilitate education of new teacher evaluation policy • Encourage discussion of alternate models: Promote teacher voice in process • Encourage assessment of strengths and weaknesses of various models	• Teachers and Administrators	• Increased knowledge of new teacher evaluation policy • Encourage Teacher voice in decision making of policy **Measures**: Training feedback assessments	• Provide opportunity to see how the district level student data would have impacted their individual evaluations from the previous year • Provide feedback and input prior to administration of policy • Support teachers in transition of new evaluation policy **Measures**: Training feedback assessments, Reflections and interviews	• Increased teacher and public satisfaction with evaluation process • Improved correlation between teacher evaluation and student performance **Measures**: Teacher retention data; student performance data

Assumptions
Individual teacher evaluations will become more accountable with student data being added into assessment models.

External Factors
Teacher Evaluation model not yet finalized, and could change after piloted

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Appendix A: Standards for Professional Learning and NWRPDP Rubric for Implementation

Learning Communities
Professional learning that increases educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment

Leadership
Professional learning that increases educator effectiveness and results for all students requires skillful leaders who develop capacity, advocate, and create support systems for professional learning

Resources
Professional learning that increases educator effectiveness and results for all students requires prioritizing, monitoring, and coordinating resources for educator learning

Data
Professional learning that increases educator effectiveness and results for all students uses a variety of sources and types of student, educator and system data to pan, assess, and evaluate professional learning

Learning Designs
Professional learning that increases educator effectiveness and results for all students integrates theories, research, and odes of human learning to achieve its intended outcomes

Implementation
Professional learning that increases educator effectiveness and results for all students applies research on change and sustains support for implementation of professional learning for long-term change

Outcomes
Professional learning that increases educator effectiveness and results for all students aligns its outcomes with educator performances and student curriculum standards

Standard	4=Highly Effective	3=Effective	2=Somewhat Effective	1=Ineffective	0=Not Applicable
LEARNING COMMUNITIES: Professional learning that increases educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective	All participants engage in continuous improvement and follow up, take collective responsibility for the learning, and participate in	Most participants are engaged all of the time, or all participants are engaged at least 75% of the time	Some participants are engaged in all levels	Few participants are engaged in all levels	This category would not apply to this project

Standard	4=Highly Effective	3=Effective	2=Somewhat Effective	1=Ineffective	0=Not Applicable
responsibility, and goal alignment	creating alignment and accountability				
LEADERSHIP: Professional learning that increases educator effectiveness and results for all students requires skillful leaders who develop capacity, advocate, and create support systems for professional learning	The project is designed to develop capacity in all participants and creates support systems for ongoing learning	The project develops capacity in most participants and creates support systems for ongoing learning	The project develops capacity in some participants, support systems are incomplete	The project fails to develop capacity in participants and does not result in support systems for ongoing learning	This category would not apply to this project
RESOURCES: Professional learning that increases educator effectiveness and results for all students requires prioritizing, monitoring, and coordinating resources for educator learning	There is evidence of a system in place to prioritize, monitor and coordinate human, fiscal, material , technology and time resources to support the project longterm	There is evidence of a system in place to prioritize, monitor and coordinate human, fiscal, material , technology and time resources to support the project until all participants are trained	There is evidence of an inadequate system in place to prioritize, monitor and coordinate human, fiscal, material , technology and time resources to support the project	There is no evidence of a system in place to prioritize, monitor and coordinate human, fiscal, material , technology and time resources to support the project longterm	This category would not apply to this project
DATA: Professional learning that increase educator effectiveness and results for all students uses a variety of sources and types of student, educator and system data to pan, assess, and evaluate professional learning.	Student, educator and system data is continually analyzed to plan, assess progress and evaluated the project	Student, educator and system data is analyzed initially to plan the project, and at the end to evaluate the project	Data from any one source is analyzed prior to initiating the project and at the end of the project to determine improvement	Data is not used to determine the need for the project nor the success of the project	This category would not apply to this project
LEARNING DESIGNS: Professional learning that increase educator effectiveness and results for all students integrates theories, research, and odes of human learning to achieve its intended outcomes	Learning theories, research and models of human learning which emphasize active engagement are used consistently to plan the learning	Learning theories, research and models of human learning are used to plan the learning	Learning theories, research and models of human learning are used occasionally to plan the learning	Learning theories, research and models of human learning are not used to plan the learning	This category would not apply to this project

Standard	4=Highly Effective	3=Effective	2=Somewhat Effective	1=Ineffective	0=Not Applicable
IMPLEMENTATION: Professional learning that increase educator effectiveness and results for all students applies research on change and sustains support for implementation of professional learning for long-term change	Change research is consistently applied, there are follow up systems in place to sustain implementation, and constructive feedback is provided regularly to participants as they implement the program	Change research is inconsistently applied follow up systems are loosely in place to sustain implementation, and constructive feedback is provided occasionally to participants as they implement the program	Change research is inconsistently applied, there are no follow up systems in place to sustain implementation, and constructive feedback is not provided regularly to participants as they implement the program	Change research is not applied, there are no follow up systems in place to sustain implementation, and no constructive feedback is provided to participants as they implement the program	This category would not apply to this project

Appendix B: Statewide Coordinating Council Evaluation Form

RPDP Activity Evaluation Form
2015-2016 School Year

PRINT Participant Name (Optional): _____
E-mail address: _____
Role **Select One**: ❑ Teacher ❑ Administrator ❑ Parent ❑ Other
Grade Level: ❑ Elementary ❑ Middle ❑ High School
Circle appropriate grades: K 1 2 3 4 5 6 7 8 9 10 11 12
Teaching Assignment: ❑ Math ❑ Language Arts ❑ Science ❑ Social Studies ❑ Other: _____
School: _____District: _____
Activity/Training Title: _____Activity/Training Date: _____
Facilitator/Presenter: _____ Location: _____
Sponsored by: ❑ Southern Nevada RPDP (Clark, Esmeralda Lincoln, Nye, Mineral) ❑ Northeastern Nevada RPDP (Elko, Eureka, Humboldt, Lander, White Pine, Pershing) ❑ Northwestern Nevada RPDP (Carson, Churchill, Douglas, Lyon, Storey, Washoe)

Please rate the following characteristics of the activity.

	Not at all		To some extent		To a great extent	Don't know	N/A
1. The activity matched my needs.	1	2	3	4	5	6	7
2. The activity provided opportunities for interactions and reflections.	1	2	3	4	5	6	7
3. The presenter/facilitator's experience and expertise enhanced the quality of the activity.	1	2	3	4	5	6	7
4. The presenter/facilitator efficiently managed time and pacing of activities.	1	2	3	4	5	6	7
5. The presenter/facilitator modeled effective teaching strategies.	1	2	3	4	5	6	7
6. This activity added to my knowledge of standards and/or subject matter content.	1	2	3	4	5	6	7
7. The activity will improve my teaching skills.	1	2	3	4	5	6	7
8. I will use the knowledge and skills from this activity in my classroom or professional duties.	1	2	3	4	5	6	7
9. This activity will help me meet the needs of diverse student populations (e.g., gifted and talented, ELL, special ed., at-risk students).	1	2	3	4	5	6	7

10. Have you attended an NW RPDP professional development training prior to today? Yes_____ No_____

11. If **Yes**, has your past participation changed your teaching instruction?

Not at all To some extent To a great extent
1……2……3……4……5

Please add any questions or comments you may have for us or for future professional learning needs, questions, comments: _____

_____

Appendix C: The NWRPDP Professional Development Contact Form

NWRPDP CONTACT FORM 2015-2016

GENERAL INFORMATION					
Title of Class/Work:					
Date(s):					
Length of Services:	hours **(rounded to the nearest .5 hour)**				
Trainer(s):					
COUNTY		**# OF TEACHERS EACH COUNTY**		**GROUP DEMOGRAPHICS**	
☐	Washoe County			# of elementary teachers	
☐	Storey County			# of middle school teachers	
☐	Carson County			# of high school teachers	
☐	Lyon County			# of administrators	
☐	Churchill County			# of parents	
☐	Douglas County			# of other *(paraprofessionals, subs, district-level certified staff, HS counselors, etc.)*	
☐	Other County(ies) - List:			Total number of participants	

TYPE OF INTERACTION (CHECK 1)					
☐	Training/In-service Class	☐	Observing/Coaching	☐	
☐	Consulting/Collaboration	☐	Parent/ Family Engagement	☐	
☐		☐			

FOCUS OF SERVICE (CHECK 1)			
☐	NVACS Literacy & English (including reading, writing, and composition)	☐	Parent/ Family Engagement
☐	NVACS Math	☐	Nevada Educator Performance Framework
☐	NVACS Science	☐	English Language Learners
☐	STEM	☐	PreK-Third Grade
☐	NVACS Social Studies	☐	Leadership
☐	Computer Education and Technology	☐	Assessment
☐		☐	
☐		☐	Other

Please attach this form to a readable participant list (include: <u>first name, last name, school, position</u> <u>and county</u>) and evaluation (if primary service was training).

Submitted by: **Date:**

Notes:

Appendix D: The NWRPDP Governing Board Meeting Agendas

Northwest RPDP Governing Board
AGENDA

September 10, 2015
9:00 – 12:00 PM
Gleason Building, Room 4, 604 W. Musser Street, Carson City, NV

1.	Welcome and Introductions	
2.	Public Comment (Comments from the public are invited at this time on topics not specifically addressed elsewhere in the agenda.)	
3.	Approval of today's agenda	Possible Action Item
4.	Election of New Chairperson	Information and Discussion Possible Action Item
5.	Review/approval of meeting notes from May 6, 2015	Possible Action Item
6.	State (NDE) Update	Information and Discussion
7.	Budget Updates	Information and Discussion Possible Action Item
8.	RPDP Administrative Support Funds	Information and Discussion Possible Action Item
9.	How are districts approaching the new Read By Three legislation?	Information and Discussion
10.	NEPF: Sharing Tools and Ideas	Information and Discussion
11.	Northern Nevada Leadership Summit	Information and Discussion
12.	Superintendents' Update	Information and Discussion
13.	District Members' Announcements	Information and Discussion
14.	Public Comment (Comments from the public are invited at this time on topics not specifically addressed elsewhere in the agenda.)	
15.	Adjournment	Possible Action Item

Members of the public who are disabled and require special accommodations or assistance at the meeting are requested to notify Pam Mills, in writing at the NWRPDP, 380 – A Edison Way, Reno, NV 89502 or by calling (775) 861 – 4470.

This agenda has been posted at the following locations:
Southern Nevada RPDP, 515 West Cheyenne, Suite C, North Las Vegas, NV 89030
Douglas County School District, 751 Mono, Minden, NV 89423
Nevada State Department of Education, 700 E. Fifth Street, Carson City, NV 89701
Carson City School District, 1402 West King Street, Carson City, NV 89703
Churchill County School District, 690 S. Maine Street, Fallon, NV 89406
Washoe County School District, Administration Building, 425 East Ninth, Reno, NV 89512
Washoe County School District, Regional Center for Teaching and Learning, 380 Edison Way, Reno, NV 89502
Storey County School District, P.O. Box C, Virginia City, NV 89440
Lyon County School District, 25 E. Goldfield Avenue, Yerington, NV 89447
Northern Nevada RPDP, 1290 Burns Road, High Tech Center Room 119, Elko, NV 89801

Northwest RPDP Governing Board AGENDA
REVISED on 1/8/2016

January 14, 2016
9:00 – 12:00 PM
Gleason Building, 604 W. Musser Street, Room 4, Carson City, NV

1.	Welcome and Introductions	
2.	Public Comment (Comments from the public are invited at this time on topics not specifically addressed elsewhere in the agenda.)	
3.	Approval of today's agenda	Possible Action Item
4.	Review/approval of meeting notes from September 10, 2015	Possible Action Item
5.	State (NDE) Update	Information and Discussion
6.	Regulation Updates – Dr. M. Burnham, UNR	Information and Discussion
7.	Budget Updates	Information and Discussion Possible Action Item
8.	RPDP Administrative Support Funds	Information and Discussion
9.	Development of Priorities for Professional Development/GTLF Grant	Information and Discussion Possible Action Item
10.	Superintendents' Update	Information and Discussion
11.	District Members' Announcements	Information and Discussion
12.	Public Comment (Comments from the public are invited at this time on topics not specifically addressed elsewhere in the agenda.)	
13.	Adjournment	Possible Action Item

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Lyon County School District, 25 E. Goldfield Avenue, Yerington, NV 89447
Northern Nevada RPDP, 1290 Burns Road, High Tech Center Room 119, Elko, NV 89801

Northwest RPDP Governing Board
AGENDA

March 10, 2016
9:00 – 12:00 PM
Gleason Building, 604 W. Musser Street, Room 4, Carson City, NV

1.	Welcome and Introductions	
2.	Public Comment (Comments from the public are invited at this time on topics not specifically addressed elsewhere in the agenda.)	
3.	Approval of today's agenda	Possible Action Item
4.	Review/approval of meeting notes from January 14, 2015	Possible Action Item
5.	State (NDE) Update	Information and Discussion
6.	Budget Updates	Information and Discussion Possible Action Item
7.	RPDP Administrative Support Funds	Information and Discussion
8.	Superintendents' Update	Information and Discussion
9.	District Members' Announcements	Information and Discussion
10.	Public Comment (Comments from the public are invited at this time on topics not specifically addressed elsewhere in the agenda.)	
11.	Next Meeting: April 28, 2016 (Final meeting of 2015-2016)	Information and Discussion
12.	Adjournment	Possible Action Item

Members of the public who are disabled and require special accommodations or assistance at the meeting are requested to notify Pam Mills, in writing at the NWRPDP, 380 – A Edison Way, Reno, NV 89502 or by calling (775) 861 – 4470.

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Lyon County School District, 25 E. Goldfield Avenue, Yerington, NV 89447
Northern Nevada RPDP, 1290 Burns Road, High Tech Center Room 119, Elko, NV 89801

Northwest RPDP Governing Board
AGENDA

April 27, 2016
9:00 – 12:00 PM
Gleason Building, 604 W. Musser Street, Room 4, Carson City, NV

1.	Welcome and Introductions	
2.	Public Comment (Comments from the public are invited at this time on topics not specifically addressed elsewhere in the agenda.)	
3.	Approval of today's agenda	Possible Action Item
4.	Review/approval of meeting notes from March 10, 2016	Possible Action Item
5.	State (NDE) Update	Information and Discussion
6.	Budget Updates	Information and Discussion Possible Action Item
7.	RPDP Administrative Support Funds	Information and Discussion
8.	NWRPDP Goals	Information and Discussion
9.	Superintendents' Update	Information and Discussion
10.	District Members' Announcements	Information and Discussion
11.	2016-2017 Meeting Dates	Information and Discussion Possible Action Item
12.	Public Comment (Comments from the public are invited at this time on topics not specifically addressed elsewhere in the agenda.)	
13.	Adjournment	Possible Action Item

Members of the public who are disabled and require special accommodations or assistance at the meeting are requested to notify Pam Mills, in writing at the NWRPDP, 380 – A Edison Way, Reno, NV 89502 or by calling (775) 861 – 4470.

This agenda has been posted at the following locations:
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Storey County School District, P.O. Box C, Virginia City, NV 89440
Lyon County School District, 25 E. Goldfield Avenue, Yerington, NV 89447
Northern Nevada RPDP, 1290 Burns Road, High Tech Center Room 119, Elko, NV 89801

Northwest RPDP Governing Board
AGENDA

May 9, 2016
7:45 a.m.
Gleason Building, 604 W. Musser Street, Room 4, Carson City, NV

1. Welcome and Introductions
2. Public Comment (Comments from the public are invited at this time on topics not specifically addressed elsewhere in the agenda.)
3. Approval of today's agenda — Possible Action Item
4. Budget Updates — Information and Discussion
   Possible Action Item
5. Public Comment (Comments from the public are invited at this time on topics not specifically addressed elsewhere in the agenda.)
6. Adjournment — Possible Action Item

Members of the public who are disabled and require special accommodations or assistance at the meeting are requested to notify Pam Mills, in writing at the NWRPDP, 380 – A Edison Way, Reno, NV 89502 or by calling (775) 861 – 4470.

This agenda has been posted at the following locations:
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Lyon County School District, 25 E. Goldfield Avenue, Yerington, NV 89447
Northern Nevada RPDP, 1290 Burns Road, High Tech Center Room 119, Elko, NV 89801

STATE COORDINATING COUNCIL
REGIONAL PROFESSIONAL DEVELOPMENT PROGRAM

Statewide Coordinating Council
Regional Professional Development Program

Plan for Professional Development

2012-2017

PURPOSE....MISSION...Why we exist...

Core Elements of the Mission of the State Coordinating Council of the Regional Professional Development Programs (SCCRPDP)
To strengthen the Regional Professional Development Programs (RPDPs) through ongoing collaboration, communication, and networking
To promote the design and provision of high quality professional development aligned with the *Standards for Professional Learning* as a foundation for continuous school improvement
To increase student achievement through support for the provision of high quality professional development for teachers and administrators addressing issues of equity, access, and excellence in education for all students

FUTURE DIRECTION....VISION....Our future...

Core Vision Elements
SCCRPDP will facilitate collaboration and communication of the RPDPs for continued growth and improvement in the quality of services provided.
Teachers will have the pedagogy, content, and assessment strategies to improve student learning. High quality professional development will deepen and enhance teacher practice through embedded activities and follow-up.
School leaders will provide effective instructional leadership that supports teacher professional growth and development for improved student learning.
All RPDP professional development will be aligned to the *Standards for Professional Learning*.

STRATEGIC DIRECTION.... LONG-TERM GOALS....Getting to where we want to be…

KEY GOALS...STRATEGIC DIRECTION
Goal 1: To implement the *Standards for Professional Learning*
Goal 2: To design and implement high quality professional development for teachers to improve student learning
Goal 3: To design and implement high quality professional development for school administrators that increases their instructional leadership skills to improve student learning
Goal 4: To implement systems to measure impact of RPDP professional development on teacher effectiveness and student learning

KEY STRATEGIES....ACTION STEPS...How to get it done...

Key Strategies
Goal 1: To support the use of the *Standards for Professional Learning* in the design and delivery of professional development for educators statewide
Strategies: ▪ Identify common services, actions, and practices of the RPDPs ▪ Establish a collective voice on professional development issues as appropriate ▪ Promote delivery of high quality professional development aligned with the *Standards for Professional Learning*. ▪ Support opportunities for regional trainers to share expertise between and within regions and participate in their own personal professional development
Goal 2: Oversee the design and implementation of high quality professional development aligned with the *Standards for Professional Learning* in order for educators to improve student learning and close achievement gaps
Strategies: ▪ Utilize a third-part evaluator to monitor the provision of high quality professional development focused on the *Standards for Professional Learning* to improve teaching and learning ▪ Provide support to educators in the development, implementation, and evaluation of their school improvement initiatives
Goal 3: Oversee the development and implementation of high quality professional development for school administrators that increases their knowledge of curriculum, instruction, and assessment to improve teaching and learning
Strategies: ▪ Provide for the delivery of high quality professional development on instructional leadership skills that has sustained impact on teacher effectiveness and student learning ▪ Oversee support to school administrators in the development, implementation and evaluation of their school improvement initiatives ▪ Ensure professional development supports the school leadership responsibilities in the areas of: curriculum/instruction, assessment/accountability, vision/culture, and operations/management
Goal 4: To implement systems by region to measure impact of RPDP professional development on educator effectiveness and student learning
Strategies: ▪ Provide a forum for the discussion and refinement of evaluation practices that can most effectively measure the impact of professional development on teacher effectiveness and student learning ▪ Oversee systems for communicating and reporting findings ▪ Review evaluation data for analysis, decision-making, future offerings, goal-setting, and continuous improvement

Appendix F: Carson City School District Services Summary

Carson City School District has 11 schools: six elementary schools, two middle schools, one comprehensive high school, one alternative high school, and one charter school. Carson has 7% of the schools in the NWRPDP Region, which includes 154 schools. One full-time learning facilitator is housed in Carson.

Training focused mainly on the Nevada Educator Performance Framework and Nevada Academic Content Standards in science and math, followed by computer education and technology.

Participant Mean Ratings on Quality of RPDP Trainings

(Scale: 1 = not at all, 3 = to some extent, 5 = to a great extent)	CCSD	Region
The activity matched my needs	4.2	4.3
The activity provided opportunities for interactions and reflections	4.6	4.6
The presenter/facilitator's experience and expertise enhanced the quality of the activity.	4.5	4.6
The presenter/facilitator efficiently managed time and pacing of activities.	4.5	4.6
The presenter/facilitator modeled effective teaching strategies.	4.5	4.5
This activity added to my knowledge of standards and/or subject matter content.	4.4	4.4
The activity will improve my teaching skills.	4.2	4.3
I will use the knowledge and skills from this activity in my classroom or professional duties.	4.4	4.5
This activity will help me meet the needs of diverse student populations (e.g., gifted and talented, ELL, special education, at-risk students).	4.1	4.3

Number of Educators Trained by NWRPDP

	Unduplicated	Duplicated
ES Teachers	231	926
MS Teachers	112	344
HS Teachers	141	327
Administrators	40	162
Others	122	187
Totals	646	1946

Carson educators were 25.5% of the educators served in the region (Using the unduplicated regional count of 2527 educators).

Regional Learning Facilitator (LF) Productivity:

- LFs spent 1,619 hours planning for CCSD interactions.
    - This was 36% of the total planning time (4,515 hours).
- LFs spent 1,818 hours in interactions with CCSD employees.
    - This was 29% of total interaction time (6,296.5 hours).
- Overall, LFs spent 32% of their time working with educators in CCSD.
- LFs spent approximately 8.75% of their time working with the Nevada Department of Education and other state committees in support of the Nevada Academic Content Standards, End of Course remediation, NEPF, and science and STEM initiatives.

Figure 1: Types of Services Provided

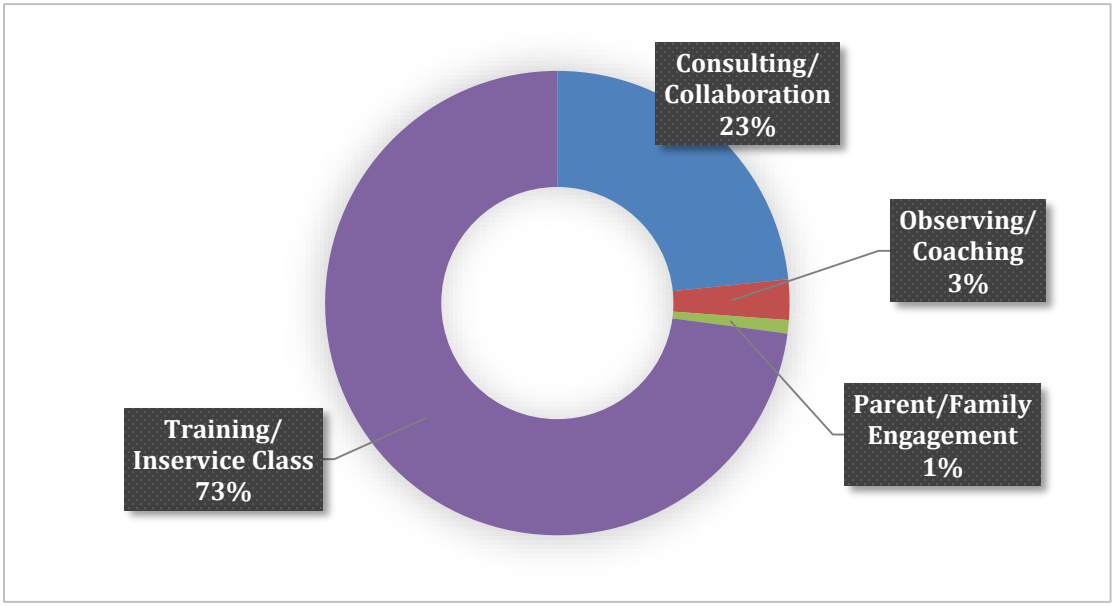
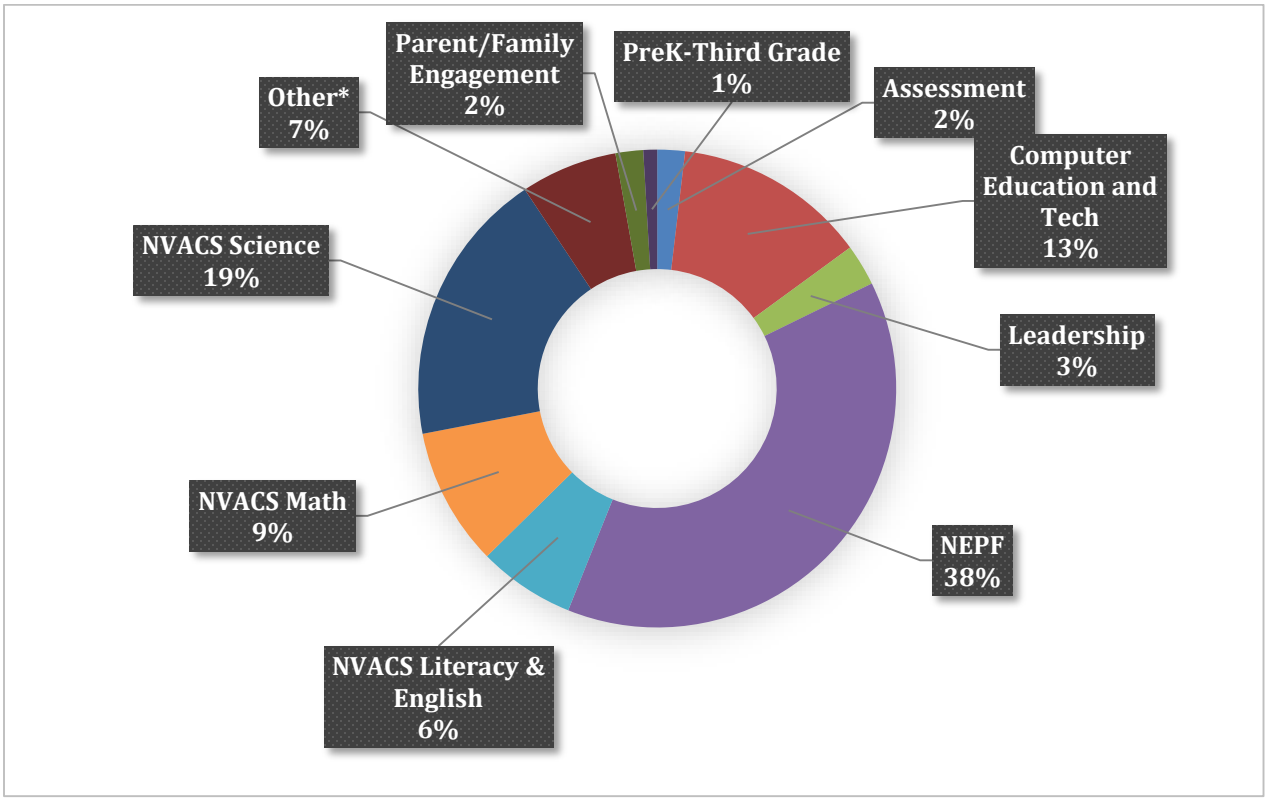


Figure 2: Focus of Services



Appendix G: Churchill County School District Services Summary

Churchill County School District has six schools: one Pre-K school, one Kindergarten-First grade school, one school for grades two-three, one school for grades four-five, one middle school, and one comprehensive high school. A full-time Learning Facilitator coordinated services for Churchill County. A second full-time facilitator was housed in Churchill but served the entire region in PreK-third grade initiatives.

Primary areas supported by regional learning facilitators this year were Nevada Academic Content Standards in math and literacy, followed by PreK-third grade initiatives, the Nevada Educator Performance Framework, and other supports for English Language Learners.

Participant Mean Ratings on Quality of RPDP Trainings

(Scale: 1 = not at all, 3 = to some extent, 5 = to a great extent)	CCSD	Region
The activity matched my needs	4.4	4.3
The activity provided opportunities for interactions and reflections	4.6	4.6
The presenter/facilitator's experience and expertise enhanced the quality of the activity.	4.5	4.6
The presenter/facilitator efficiently managed time and pacing of activities.	4.6	4.6
The presenter/facilitator modeled effective teaching strategies.	4.5	4.5
This activity added to my knowledge of standards and/or subject matter content.	4.4	4.4
The activity will improve my teaching skills.	4.3	4.3
I will use the knowledge and skills from this activity in my classroom or professional duties.	4.5	4.5
This activity will help me meet the needs of diverse student populations (e.g., gifted and talented, ELL, special education, at-risk students).	4.3	4.3

Number of Educators Trained by NWRPDP

	Unduplicated	Duplicated
ES Teachers	89	543
MS Teachers	14	55
HS Teachers	34	66
Administrators	7	23
Others	38	91
Totals	182	778

Churchill educators were 7.2% of the educators trained in the region (Using the Unduplicated regional count of 2527 educators).

Regional Learning Facilitator (LF) Productivity:

- LFs spent 1,968 hours planning for ChCSD interactions.
    - This was 44% of the total planning time (4,515 hours).
- LFs spent 2,306 hours in interactions with ChCSD employees.
    - This was 37% of total interaction time (6,296.5 hours).
- Overall, LFs spent 39.5% of their time working with educators in ChCSD.
- LFs spent approximately 8.75% of their time working with the Nevada Department of Education and other state committees in support of the Nevada Academic Content Standards, End of Course remediation, NEPF, and science and STEM initiatives.

Figure 1: Types of Services Provided

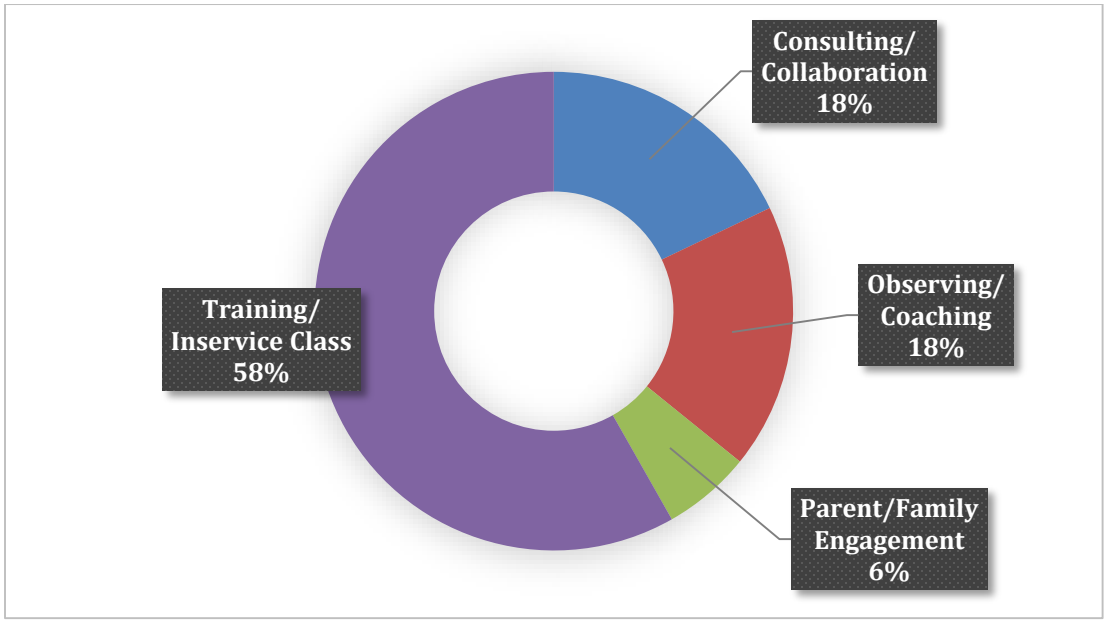
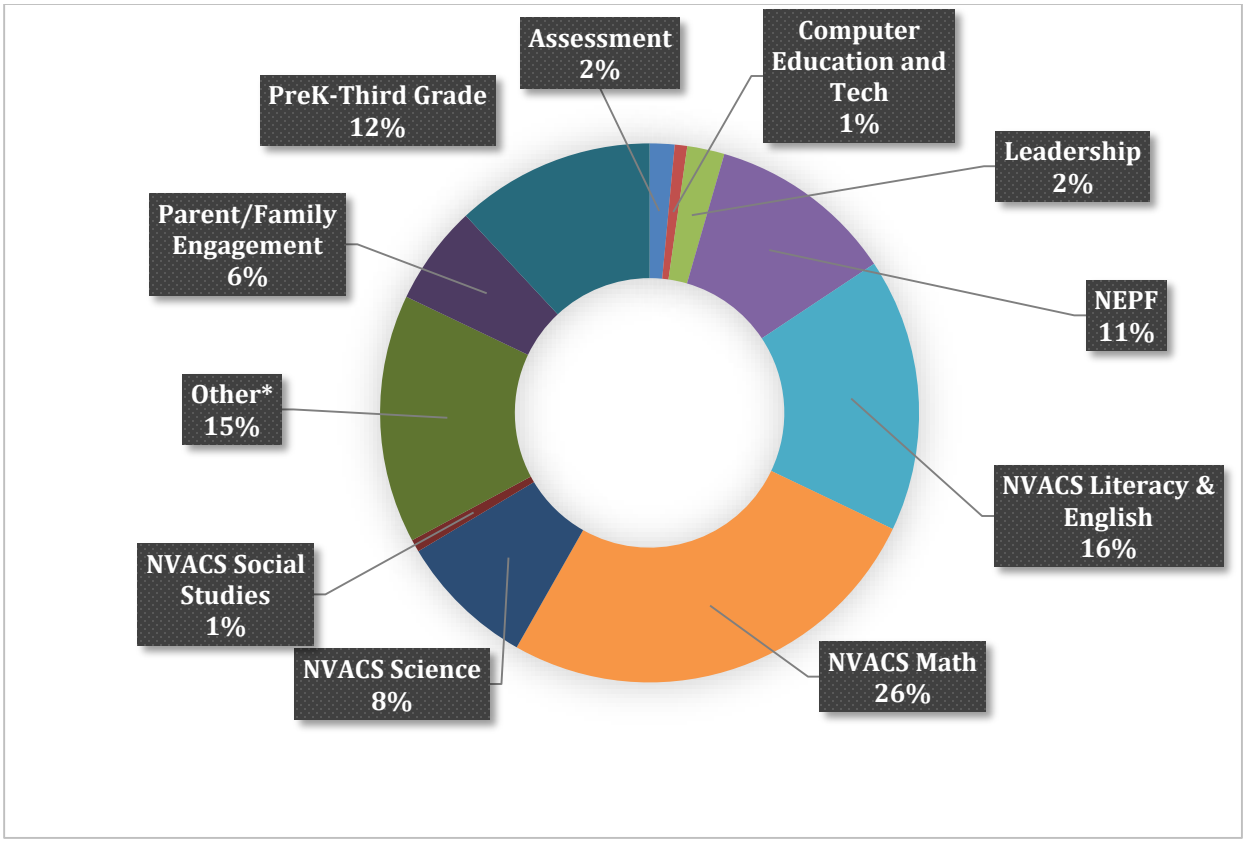


Figure 2: Focus of Services



Appendix H: Douglas County School District Services Summary

Douglas County School District has 14 schools: seven elementary schools, three middle schools, and four high school schools. Douglas has 9% of the schools in the NWRPDP Region, which includes 154 schools. A full-time Learning Facilitator coordinated services for Douglas County.

The majority of services provided this year were in support of the Nevada Academic Content Standards in math, the Nevada Educator Performance Framework, and other supports in Mindset/Social Emotional Learning, new teacher training, and formative assessment.

Participant Mean Ratings on Quality of RPDP Trainings

(Scale: 1 = not at all, 3 = to some extent, 5 = to a great extent)	DCSD	Region
The activity matched my needs	4.5	4.3
The activity provided opportunities for interactions and reflections	4.8	4.6
The presenter/facilitator's experience and expertise enhanced the quality of the activity.	4.7	4.6
The presenter/facilitator efficiently managed time and pacing of activities.	4.7	4.6
The presenter/facilitator modeled effective teaching strategies.	4.7	4.5
This activity added to my knowledge of standards and/or subject matter content.	4.4	4.4
The activity will improve my teaching skills.	4.6	4.3
I will use the knowledge and skills from this activity in my classroom or professional duties.	4.6	4.5
This activity will help me meet the needs of diverse student populations (e.g., gifted and talented, ELL, special education, at-risk students).	4.4	4.3

Number of Educators Trained by NWRPDP

	Unduplicated	Duplicated
ES Teachers	177	545
MS Teachers	44	74
HS Teachers	46	75
Administrators	23	74
Others	22	50
Totals	312	818

Douglas educators were 12.3% of the educators trained in the region (Using the Unduplicated regional count of 2527 educators).

Regional Learning Facilitator (LF) Productivity:

- LFs spent 847 hours planning for DCSD interactions.
    - This was 19% of the total planning time (4,515 hours).
- LFs spent 861 hours in interactions with DCSD employees.
    - This was 14% of total interaction time (6,296.5 hours).
- Overall, LFs spent 16% of their time working with educators in DCSD.
- LFs spent approximately 8.75% of their time working with the Nevada Department of Education and other state committees in support of the Nevada Academic Content Standards, End of Course remediation, NEPF, and science and STEM initiatives.

Figure 1: Types of Services Provided

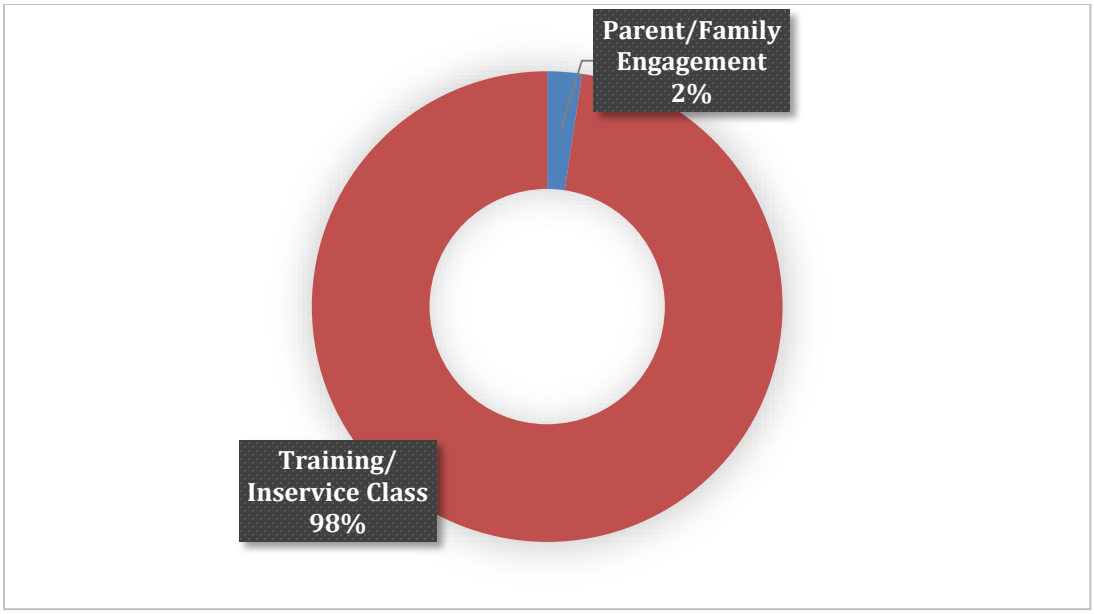
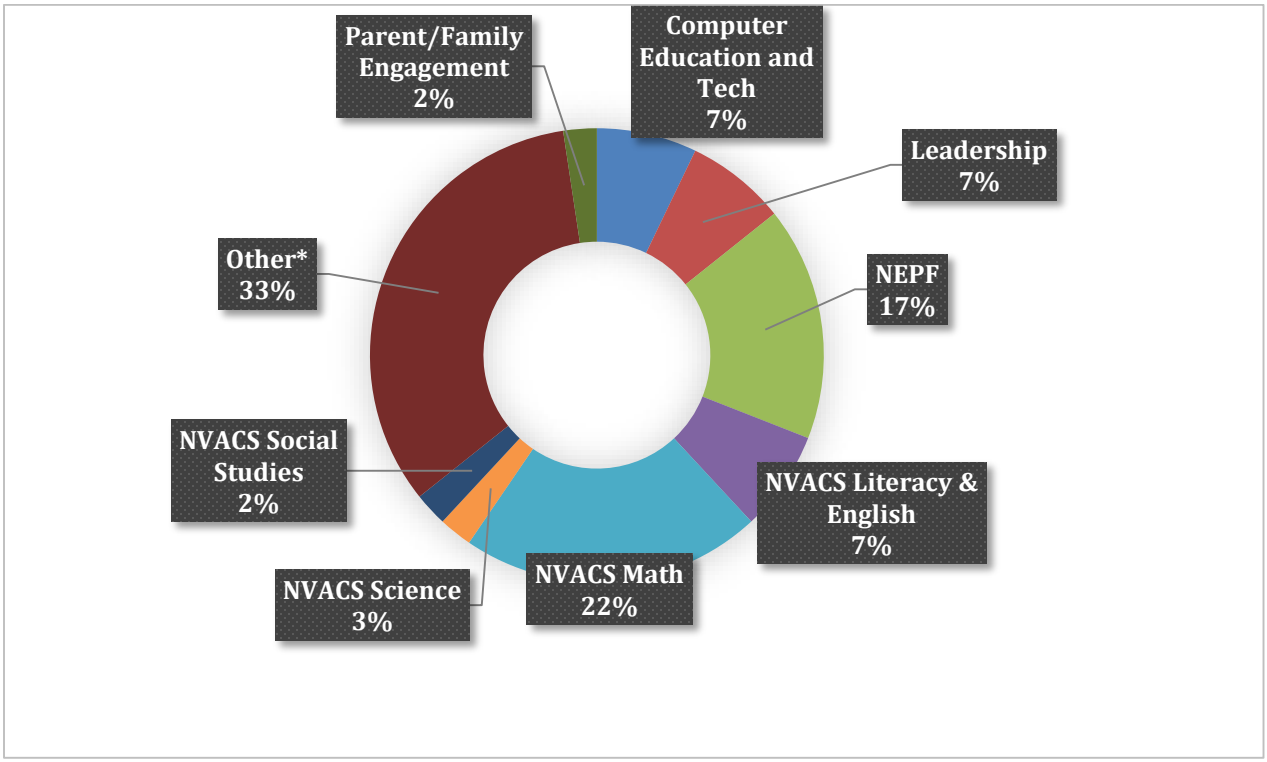


Figure 2: Focus of Services



Appendix I: Lyon County School District Services Summary

Lyon County School District has 17 schools in five communities (Yerington, Dayton, Fernley, Smith Valley and Silver Springs): eight elementary schools, four intermediate schools, four high schools, one K-8 school, and one K-12 school. Lyon has 11% of the schools in the NWRPDP Region, which includes 154 schools. A full-time facilitator coordinates services for Lyon County.

Services were focused this year on the Nevada Educator Performance Framework followed by the Nevada Academic Content Standards in science and literacy.

Participant Mean Ratings on Quality of RPDP Trainings

(Scale: 1 = not at all, 3 = to some extent, 5 = to a great extent)	LCSD	Region
The activity matched my needs	4.2	4.3
The activity provided opportunities for interactions and reflections	4.6	4.6
The presenter/facilitator's experience and expertise enhanced the quality of the activity.	4.5	4.6
The presenter/facilitator efficiently managed time and pacing of activities.	4.6	4.6
The presenter/facilitator modeled effective teaching strategies.	4.4	4.5
This activity added to my knowledge of standards and/or subject matter content.	4.3	4.4
The activity will improve my teaching skills.	4.2	4.3
I will use the knowledge and skills from this activity in my classroom or professional duties.	4.4	4.5
This activity will help me meet the needs of diverse student populations (e.g., gifted and talented, ELL, special education, at-risk students).	4.2	4.3

Number of Educators Trained by NWRPDP

	Unduplicated	Duplicated
ES Teachers	259	491
MS Teachers	107	202
HS Teachers	123	165
Administrators	25	64
Others	18	28
Totals	532	950

Lyon educators were 21% of the educators trained in the region (Using the Unduplicated regional count of 2527 teachers).

Regional Learning Facilitator (LF) Productivity:

- LFs spent 1,732 hours planning for LCSD interactions.
    - This was 38% of the total planning time (4,515 hours).
- LFs spent 1,588 hours in interactions with LCSD employees.
    - This was 25% of total interaction time (6,296.5 hours).
- Overall, LFs spent 31% of their time working with educators in LCSD.
- LFs spent approximately 8.75% of their time working with the Nevada Department of Education and other state committees in support of the Nevada Academic Content Standards, End of Course remediation, NEPF, and science and STEM initiatives.

Figure 1: Types of Services Provided

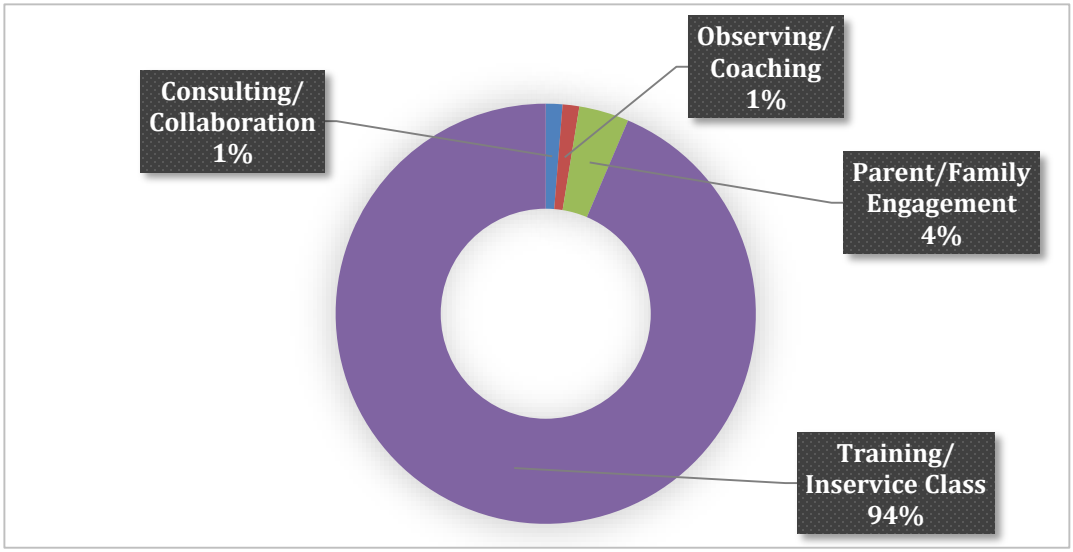
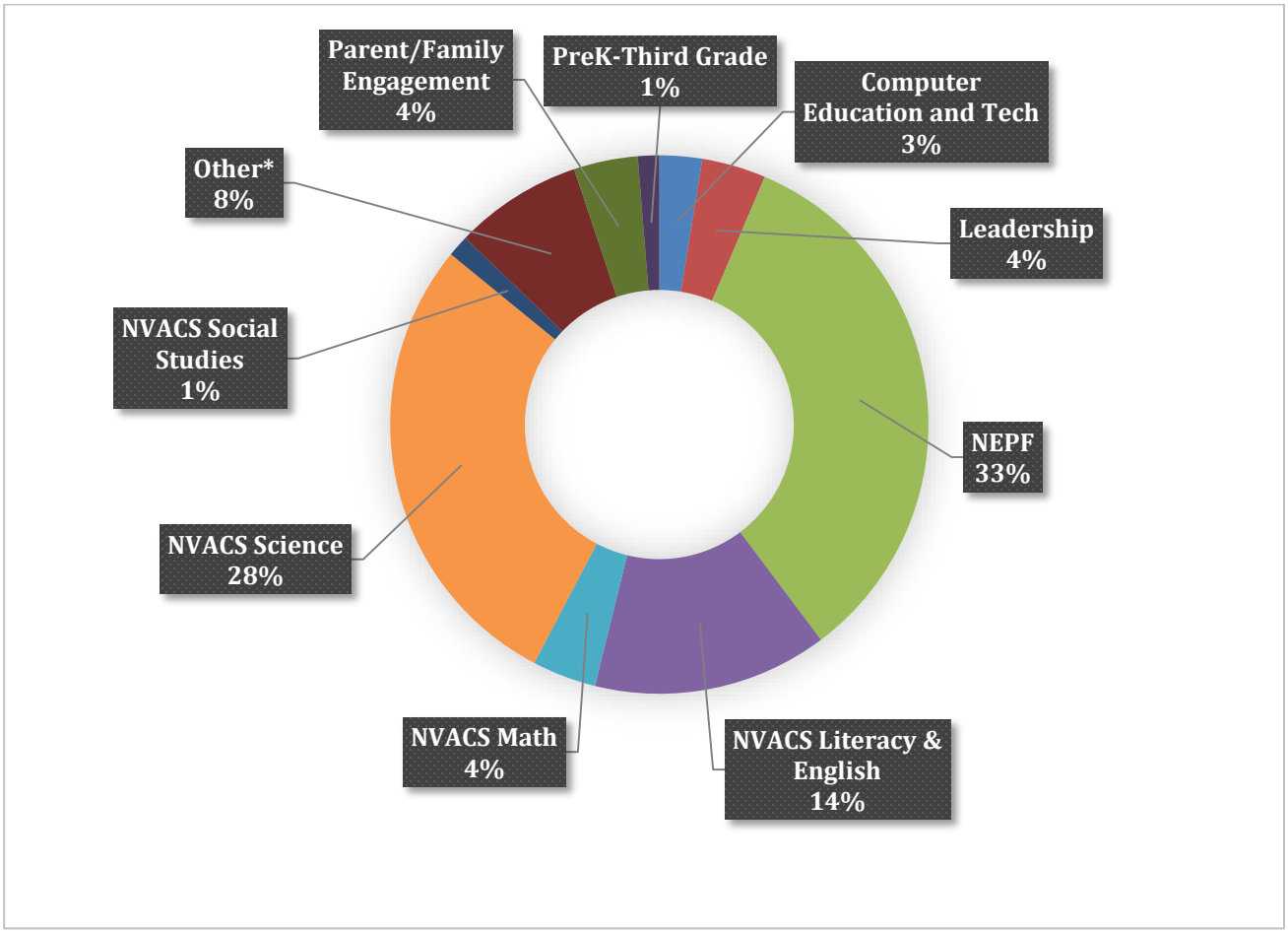


Figure 2: Focus of Services



Appendix J: Storey County School District Services Summary

Storey County School District has four schools and one part-time trainer dedicated to its professional development. It offers two elementary schools, one middle school, and one high school. Storey County has 2.6% of the schools in the NWRPDP Region, which includes 154 schools.

Storey County received services in implementing the Nevada Academic Content Standards in math, science, literacy, the Nevada Educator Performance Framework, and parent/family engagement. In addition, supports were provided in other areas such as assessment and English Language Learners.

Participant Mean Ratings on Quality of RPDP Trainings

(Scale: 1 = not at all, 3 = to some extent, 5 = to a great extent)	SCSD	Region
The activity matched my needs	4.8	4.3
The activity provided opportunities for interactions and reflections	5.0	4.6
The presenter/facilitator's experience and expertise enhanced the quality of the activity.	5.0	4.6
The presenter/facilitator efficiently managed time and pacing of activities.	4.9	4.6
The presenter/facilitator modeled effective teaching strategies.	5.0	4.5
This activity added to my knowledge of standards and/or subject matter content.	5.0	4.4
The activity will improve my teaching skills.	5.0	4.3
I will use the knowledge and skills from this activity in my classroom or professional duties.	5.0	4.5
This activity will help me meet the needs of diverse student populations (e.g., gifted and talented, ELL, special education, at-risk students).	4.9	4.3

Number of Educators Trained by NWRPDP

	Unduplicated	Duplicated
ES Teachers	5	5
MS Teachers	3	3
HS Teachers	5	6
Administrators	2	2
Others	0	0
Totals	15	16

Storey educators were 1% of the educators trained in the region (Using the Unduplicated regional count of 2527 educators).

Regional Learning Facilitator (LF) Productivity:

- LFs spent 416 hours planning for SCSD interactions.
    - This was 9.2% of the total planning time (4,515 hours).
- LFs spent 280.5 hours in interactions with SCSD employees.
    - This was 4.5% of total interaction time (6,296.5 hours).
- Overall, LFs spent 6.4% of their time working with educators in SCSD.
- LFs spent approximately 8.75% of their time working with the Nevada Department of Education and other state committees in support of the Nevada Academic Content Standards, End of Course remediation, NEPF, and science and STEM initiatives.

Figure 1: Types of Services Provided

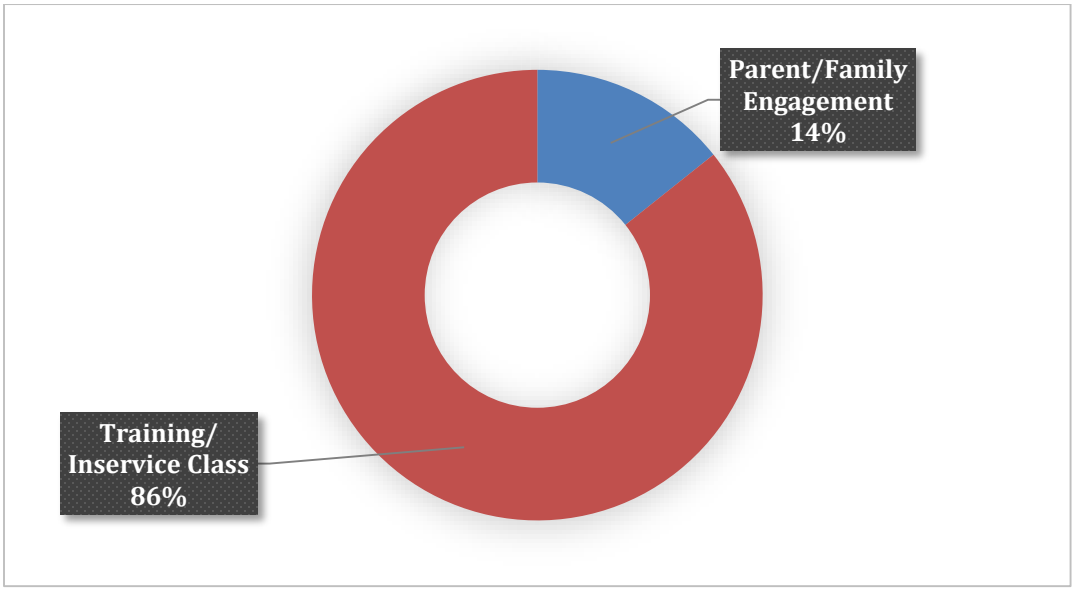
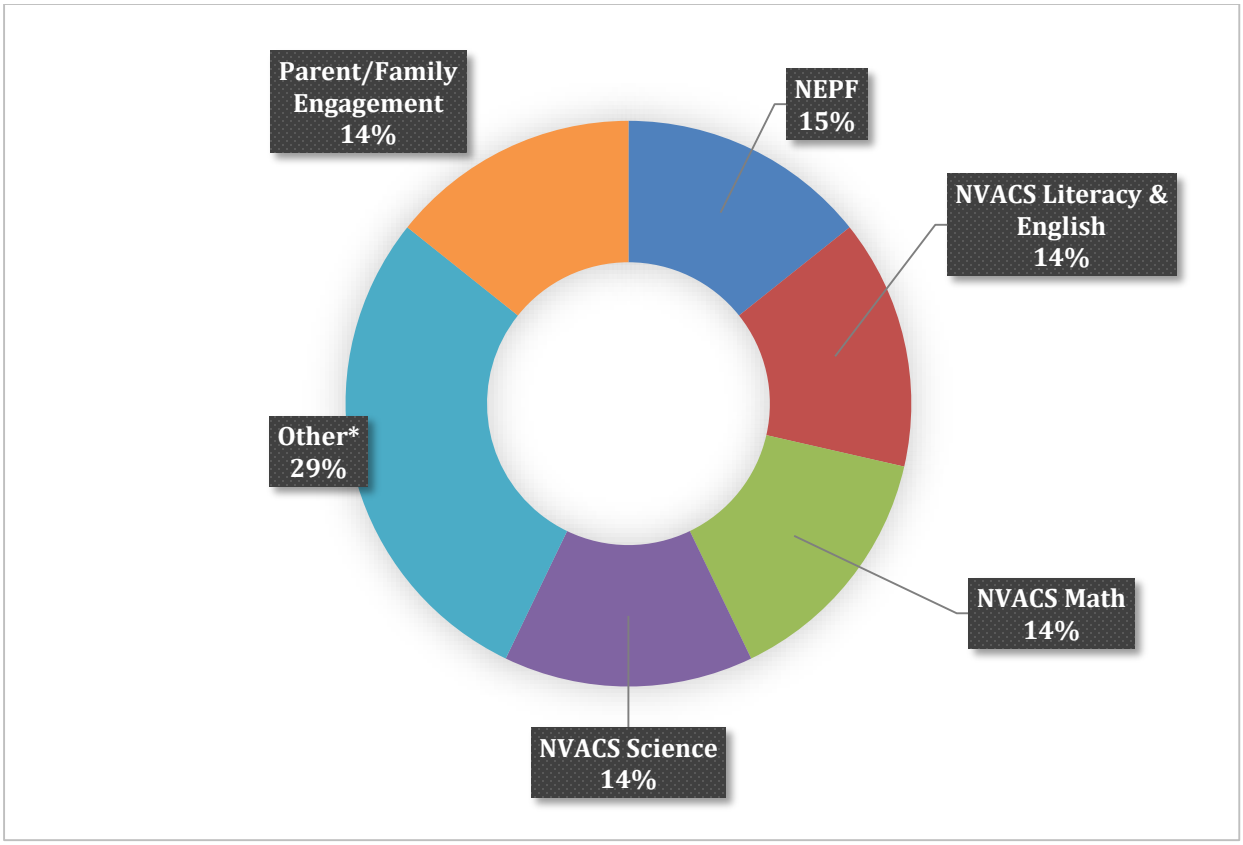


Figure 2: Focus of Services



Appendix K: Washoe County School District Services Summary

Washoe County School District is the largest school district in the region with 102 schools: 62 elementary schools, 15 middle schools, 15 high schools, two schools for special populations, and eight charter schools. Washoe has 66% of the schools in the NWRPDP Region, which includes 154 schools.

Nevada Academic Content Standards (NVACS) in literacy (including writing) and math were the main focus of training.

Participant Mean Ratings on Quality of RPDP Trainings

(Scale: 1 = not at all, 3 = to some extent, 5 = to a great extent)	WCSD	Region
The activity matched my needs	4.7	4.3
The activity provided opportunities for interactions and reflections	4.8	4.6
The presenter/facilitator's experience and expertise enhanced the quality of the activity.	4.8	4.6
The presenter/facilitator efficiently managed time and pacing of activities.	4.7	4.6
The presenter/facilitator modeled effective teaching strategies.	4.7	4.5
This activity added to my knowledge of standards and/or subject matter content.	4.7	4.4
The activity will improve my teaching skills.	4.7	4.3
I will use the knowledge and skills from this activity in my classroom or professional duties.	4.8	4.5
This activity will help me meet the needs of diverse student populations (e.g., gifted and talented, ELL, special education, at-risk students).	4.7	4.3

Number of Educators Trained by NWRPDP

	Unduplicated	Duplicated
ES Teachers	566	1202
MS Teachers	86	165
HS Teachers	65	130
Administrators	34	58
Others	89	165
Totals	840	1720

Washoe educators were 33% of the educators trained in the region (Using the Unduplicated regional count of 2527 educators).

Regional Learning Facilitator (LF) Productivity:

- LFs spent 1,875.5 hours planning for WCSD interactions.
    - This was 41.5% of the total planning time (4,515 hours).
- LFs spent 2,221.5 hours in interactions with WCSD employees.
    - This was 35.2% of total interaction time (6,296.5 hours).
- Overall, LFs spent 38% of their time working with educators in WCSD.
- LFs spent approximately 8.75% of their time working with the Nevada Department of Education and other state committees in support of the Nevada Academic Content Standards, End of Course remediation, NEPF, and science and STEM initiatives.

Figure 1: Types of Services Provided

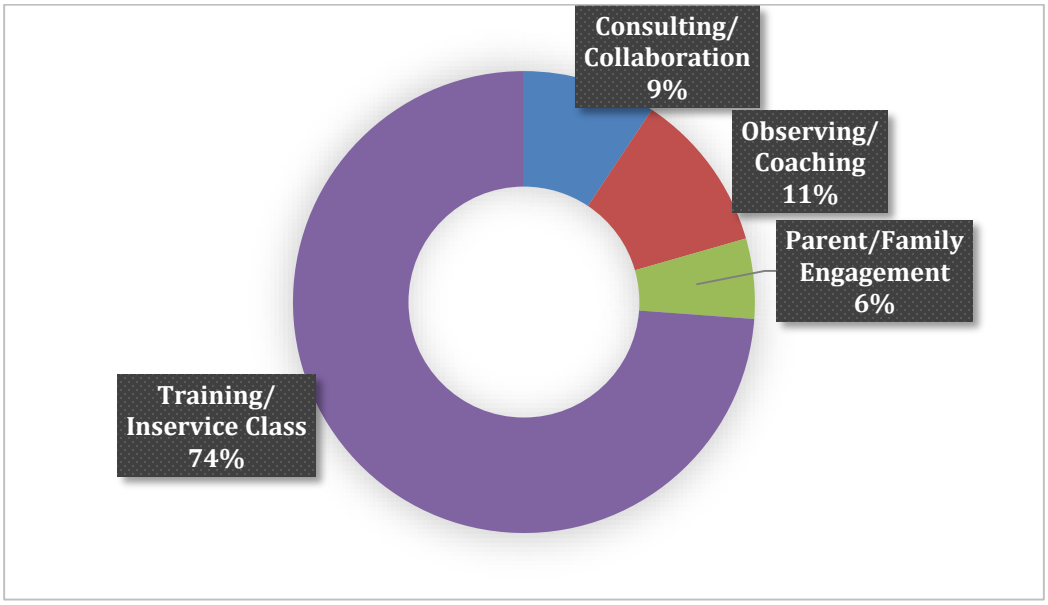


Figure 2: Focus of Services