

**Responding Effectively to Assessments with Curriculum and Teaching (REACT)  
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**PART A: Need For Project Part A-1: Absolute and Competitive Priorities**

**Absolute Priority 5, Improving Achievement and High School Graduation Rates (Rural LEAs):** DNCUSD is listed on the Rural Low-Income Schools list because of the high numbers of Socioeconomically Disadvantaged students in the District (low-income) and the distances students travel to schools. DNUSD has made significant improvements in the area of graduation rates over the last four years, but over 20% of our students are still not graduating high school.

<b>Graduation Rates</b>			
	2006-07	2007-08	2008-09
Del Norte Unified	67.6%	74.6%	79.8%
State Average	80.6%	80.2%	78.6%

**Absolute Priority 3, Innovations That Complement the Implementation of High Standards and High-Quality Assessments.** REACT meets Absolute Priority 3 by training teachers and administrators how to use formative and summative assessments stored in the [REDACTED] or displayed on a Data Wall to analyze student performance, improve the effectiveness of instructional practices, and to target instructional needs of students in the general and subgroup populations using Professional Learning Community (PLC) Data Teams, site and district Data Data Coaches, and Data Informed Instruction DI<sup>2</sup> strategies.

**Competitive Preference 6, Innovations for Improving Early Learning Outcomes:** REACT Project will partner with California First Five Commission to hire and train an Early Childhood Education Teacher as a Data Coach to implement a Coaching Model to assist teachers in selecting county-wide ECE assessments, collect and display data, and conduct data meetings with Preschool Teachers to improve the readiness of children entering Kindergarten.

**Competitive Preference 8, Innovations to Address the Unique Learning Needs of Students with Disabilities and Limited English Proficient Students:** Two of the Data Coaches hired for the Project will have ELL and Special Education backgrounds. We will use their expertise to

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support improved learning with appropriate assessment tools, instructional strategies (like SDAIE), and specialized curriculum to close achievement gaps for these subgroups.

### Part A-2: gaps in services, infrastructure, or opportunities

Del Norte is the northern-most coastal county in California with a population of 29,114. It is not only rural, but at the end of the road, that is, seven hours by car to San Francisco or Portland, Oregon, the closest big cities. DN has the lowest per capita income in the state at \$25,980; the median household income in 2008 was \$36,729. Pelican Bay State Prison, Redwood National Park, wood products, schools, county government, and fishing are the major employers in the county. Isolation and rural poverty heavily impact student achievement in Del Norte County.

DNCUSD is a single, county-wide district with twenty schools spread across 1230 square miles. Connectivity through high speed Internet (Digital California) reached us in 2005. Elementary schools average 3.5 students per computer, the middle school 2.9 to each, and high schools 3.1 and all teachers have an online computer in their classrooms. However, the majority of our families do not have computers in their homes. REACT will focus on the challenges of rural students rarely computers except at school, and come from homes with low expectations.

DNCUSD is not in Program Improvement, but it has not met AYP criteria for ELA and Math in the past two years. This year there are five district schools in Program Improvement and several others may well join the list in 2011.

School	Grades	PI Yr	S-E D	ELL	Students w/Disabilities	AYP Criteria not met 2009-10
<b>Joe Hamilton</b>	K-5	2	82%	17%	20%	ELA, SwD
<b>Smith River</b>	K-8	1	74%	34%	9%	ELA or Math; ELL or SwD
<b>Redwood</b>	K-8	1	42%	4%	10%	Math
<b>Sunset HS</b>	10-12	4-	70%	2%	5%	None met
<b>Del Norte High</b>	9-12	1	52%	12%	13%	Math, White

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The following charts show county-wide tests results that confirm the need for interventions:

2010 Del Norte County English/Language Arts CST Results										
Grade	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>
Students Tested	287	258	282	242	264	263	290	291	376	364
% Basic, BB, FBB	63	63	43	44	58	46	53	52	68	71

2010 Del Norte County Mathematics CST Results										
Grade Level	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>
Students Tested	287	259	283	244	264	262	303	308	353	285
% Basic, BB, FBB	47	40	36	43	63	49	70	84	82	60

Targeted Subgroups 2010 Del Norte County CST Results		
% Basic, Below Basic or Far Below Basic		
Sub Group	ELA	Math
Soc. Econ. Disadvantaged	64%	73%
English Learners	86%	75%
Students With Disabilities	87%	91%

Over the past three years, DNCUSD high school students have shown a failing trend on the CASHEE, California's exit exam. In 2006-07, **50.7%** of students passed ELA but by 2010 only **40%** passed. Math scores showed the same losses with **53.1%** passing in 2006-07 and only **37%** in 2009-10. A disproportionate percentage of students in subgroups are **not completing high school graduation requirements**: Socioeconomically Disadvantaged (SED) students, only 61% graduate; English Language Learners (ELL): 72%; Students with Disabilities (SwD): 52%; Asian students 75%. These low completion rates along with poor student outcomes support the need for implementation of this innovative district-wide project designed for rural schools.

### Part A-3: Strength of Research, Significance of Effect, Magnitude of Effect

**Strength of Research:** Two of our schools, Joe Hamilton Elementary, a school where 97% of

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students qualify for free and reduced price meals, and an interdisciplinary team at Crescent Elk Middle School have an exceptional record of improving achievement in ELA Scores on the CST over several years (with improvement in Math scores as well). It is a reasonable hypothesis that this growth is directly attributed to use of a Data Coaching Model and Data Informed Instruction. The process at both sites has included an ongoing cycle of (1) using formative assessments to measure student growth, (2) recording, organizing, and displaying this data digitally as well as on a data wall, (3) using a Data Coach to facilitate data analysis meetings with teachers, and (4) teachers planning targeted interventions to improve student outcomes. The recent **research by Dr. Anthony Bryk** (2009) documents the success of coaching and the **improved scores** in all subgroups. His four-year longitudinal Coaching Model study of teaching and student achievement found that students' average rates of learning in grades K-2 increased by 32% in the third implementation year. Teacher expertise increased substantially as did professional communication amongst teachers and Data Coaches became central to school communication. This process implemented at JH and Crescent Elk is the rationale for the REACT research project. California Standards Testing data evidence:

<b>Joe Hamilton Successful trend of students scoring Proficient or Advanced on CST:</b>			
<b>CST</b>	<b>2006-2007</b>	<b>2007-2008</b>	<b>2008-2009</b>
<b>ELA</b>	22%	33%	44%
<b>MATH</b>	35%	44%	46%
<b>Crescent Elk Team Successful trend of students scoring Proficient or Advanced on CST:</b>			
<b>CST</b>	<b>2007-2008</b>	<b>2008-2009</b>	<b>2009-2010</b>
<b>ELA Cohort 1</b>	38%	64%	
<b>Math Cohort 1</b>	36%	66%	
<b>ELA Cohort 2</b>		47%	67%
<b>Math Cohort 2</b>		56%	68%

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These results from implementing the Data Coaching Model go beyond the summary level and are reflected in every significant subgroup represented at the two school sites:

<b>Percentage of Joe Hamilton Students Scoring Proficient or Advanced</b>			
<b>Significant AYP Subgroups</b>	<b>JH ELA 2007</b>	<b>JH ELA 2008</b>	<b>JH ELA 2009</b>
American Indian	18.2%	29.4%	38.5%
Asian	26.1%	37.5%	41.4%
Hispanic	12.5%	13.2%	42.5%
White	25.9%	38.8%	50.5%
Male	17.4%	28.4%	42.2%
Female	27.3%	37.5%	46.3%
Socioeconomically Disadvantaged	20.9%	28.2%	41.4%
ELL	24.2%	30.8%	37.0%
Students with Disabilities	17.1%	22%	32.6%

<b>Percentage of Crescent Elk Team Students Scoring Proficient or Advanced</b>			
<b>Significant AYP Subgroups</b>	<b>ELA 2007</b>	<b>ELA 2008</b>	<b>ELA 2009</b>
American Indian (cohort 1)	0%	0%*	
(cohort 2)		50%	60%
Asian (cohort 1)	12%	38%	
(cohort 2)		57%	100%
Hispanic (cohort 1)	35%	65%	
(cohort 2)		44%	67%
White (cohort 1)	46%	71%	
(cohort 2)		47%	65%
Male (cohort 1)	38%	64%	
(cohort 2)		32%	65%
Female (cohort 1)	39%	64%	
(cohort 2)		60%	69%
Socio-economically Disadvantaged (cohort 1)	26%	55%	
(cohort 2)		40%	60%
ELL (cohort 1)	15%	54%	
(cohort 2)		42%	83%
Students with Disabilities (cohort 1)	0%	33%	
(cohort 2)		0%	0%

\*100% of American Indian students did improve at least one proficiency level

The above charts are evidence confirming results from our systematic study on a limited

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scale and in a limited setting, that is, results for one elementary school and one middle school interdisciplinary team using Data Coaches and DI2. **Summary and Subgroup results on CST tests warrant further research on this Coaching Model.** Our hypothesis is that a district wide implementation of the support structures (Data Coaching, Data informed instruction and Data PLC teams) will increase teacher effectiveness and positively impact student outcomes.

The Data Wall use for analysis of curriculum-based assessment results is pivotal to the REACT Project. An expansion of this program to all district schools is needed in order to study its impact in other sites, with different demographics, within a small school district, with a model for coaching in all academic subjects, and with developmental measures in preschools. REACT will expand our model in a comprehensive fashion across the district, for use with pre schools, ELA and Math at the elementary level and all core subjects at high school. Peer Data Coaching and the Data Wall process are the two essential components. **The Project will serve 3,893 students and 196 teachers in Del Norte County.**

**Significance of Effect:** The significant progress made at a single school site and an interdisciplinary team at a middle school warrant further study to investigate efficacy. REACT will scale up the core elements implemented at the two sites to a county-wide district. The district includes diverse school sites such as Margaret Keating Elementary with 80% American Indian student population, Smith River elementary with a large ELL migrant population, and Bess Maxwell Elementary with 84% Free and Reduced Lunch. The results of the REACT evaluation plan will allow other districts to understand the impact of data coaching and data informed instruction on this wide diversity of schools and grade levels.

**Magnitude of Effect:** With a cohesive process of data analysis with tiers of interventions, we anticipate **a moderate to large size effect for CST scores (2.-3. standard deviation higher)**

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over the four years of REACT for students in grades 2-6, ELL, Students with Disabilities and Socio-economically Disadvantaged subgroups. We anticipate that we will significantly close achievement gaps for preschoolers entering kindergarten by improving their success on Desired Results Developmental Profiles given in each preschool. Student achievement in grades 7-12 will show a moderate change in scores (2. standard deviation higher) overall but we predict a significant growth for AYP subgroups. Focus on data, participation at teacher academies, and teacher collaboration will help teaching practice.

REACT will show other districts in rural counties ways to (1) more effectively share resources, both human and technological; and (2) effectively build a team to lead their district through change by using data analysis to change student achievement and teacher practice.

**Part B:Project Design Part B-1: Goals, Objectives, and Strategy**

**Goals and Objectives.** The *Data Coaching Model* with *Data Wall* process used by the two schools will be the core of the **REACT Project**. I3 funds will support fully implementing the Data Coaching Model that has shown high potential but has not been implemented district-wide. We intend to use Data Walls in preschool to high school classrooms as an integrated assessment and intervention system that identifies students at risk for poor learning outcomes, monitors student progress, and provides evidenced-based interventions at multiple-levels.

**Improving achievement and High School Graduation rates** will be a REACT Project focus. District administration is committed to the idea that “Data tells us where we are, where we need to go, and who most is at risk” (Arne Duncan, June 8, 2009). Using research-based successful methodologies, REACT seeks to show significant increases in percentages of all students scoring in the Proficient or Advanced portions of CST

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<b>REACT Goals, Objectives, and Performance Measures</b>	
<b>GOAL 1: Implement an effective and innovative instructional model.</b>	
<b>OBJECTIVE 1.1:</b> 90% of DNCUSD schools will implement data driven instruction in Pre-K to 12 <sup>th</sup> grade classrooms using Data Teams and Site/District Coordinators by the end of year 2. <i>Measure: Data Team Calendars.</i>	
<b>OBJECTIVE 1.2:</b> 100% of REACT District and Data Coaches hired and trained by the end of year 1. <i>REACT Coordinator training attendance logs.</i>	
<b>GOAL 2: Improve student achievement and close the achievement gap</b>	
<b>OBJECTIVE 2.1:</b> 70% of non-proficient students will improve at least one proficiency level in core subjects by May 2015. <i>Measure: CST and District Benchmark assessments.</i>	
<b>OBJECTIVE 2.2:</b> 70% of Limited English Proficient students will improve at least one proficiency level in core subjects by May 2015. <i>Measure: CST and District Benchmark assessments.</i>	
<b>OBJECTIVE 2.3:</b> 70% of students with disabilities will improve at least one proficiency level in core subjects by May 2015. <i>Measure: CST, CMA, and/or CAPA assessments dependent on IEP.</i>	
<b>OBJECTIVE 2.4:</b> District high school graduation rate will increase by 10% above the 2009 baseline rate of 80% by June 2015. <i>Measure: Annual graduation rate report.</i>	
<b>Goal 3: Sustain the REACT program beyond funding</b>	
<b>OBJECTIVE 3.1:</b> In 2015-16 DNUSD will continue to support the REACT project by providing Data Coaches, and continuing to provide staff with [REDACTED]	
<b>Performance Measure 3.1 (process):</b> Principal leadership team data reports and HR personnel records.	
<b>OBJECTIVE 3.2:</b> Principals will continue to report data results at district wide leadership meetings.	
<b>Performance Measure 3.2 (process):</b> District wide leadership meeting agenda and minutes.	

**Strategy.** In order to improve instruction and student performance, REACT’s first step will be to lay a foundation of **Professional Development in Years 1 and 2 (January 2012 to July 2013)** that will build a common knowledge among administrators and teachers.

<b>REACT Training and Implementation Calendar</b>	
<b>Year 1</b> Jan. 2012-Jul. 2012	Recruit, hire, and train Data Coaches in DI2/[REDACTED], Data Meeting management, benchmark development, and CITW
<b>Year 2</b> Aug. 2012-Jul 2013	Train staff: DI2/[REDACTED], Data Meetings, benchmark development, and CITW
<b>Year 3</b> Aug. 2013-Jul 2014	Implement all REACT components, collect evaluation data
<b>Year 4</b> Aug. 2014-Jul 2015	Implement all REACT components, collect evaluation data
<b>Year 5</b> Aug 2014-Jul 2016	Transition to Sustainability

Looking at this one promising practice, that is, coaching using the data analysis, and with consideration of past implementation experiences, we have designed a successful model for the REACT Project: **First**, a strong district-wide leadership team will be developed starting in

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September 2010 and be a source of communication for the district. **Second**, the success of JH, once our lowest performing elementary school, has caused other teachers to take interest in their practice and show a readiness for learning these teaching techniques. **Third**, Teachers will build a common understanding of best practices by studying Classroom Instruction That Works and other research-based materials that lead teachers to examine their practice. These three factors have presented us with the opportunity to move forward with the comprehensive, district-wide, Coaching Model to significantly improve the use of data to close our achievement gap.

REACT will put in place a structure for data analysis a data team led by a Data Coach. Using the text, [REDACTED] we will build teacher assessment literacy, begin the task of analyzing formative and summative assessments, examine instruction, develop action plans, teach and assess, then teach and assess. “The initial step of linking learning and teaching need not take a long time—most schools we know devote one meeting to it. However, it lays the groundwork for closer examination of practice by focusing attention squarely on the instructional core, which is defined as the interaction between teachers, students, and content.” ([REDACTED] p. 103) “Similar to examining student work, a careful examination of teacher work relies on the following qualities: Evidence, precise shared vocabulary, and collaborative conversation with explicit norms.” ([REDACTED] p. 104)

REACT will focus on the use of student achievement data to drive instruction, especially ongoing benchmark assessments, but we will also monitor through observations teacher practice to document instructional change over time. Multiple measures of student growth will be used including teacher-made, curriculum-based assessments in ELA, Math, H/SS, and Science. Teachers in grades 7-12 will work with our evaluators, two Humboldt State University professors and a local administrator and evaluator, using state standards and objectives to

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develop benchmark measures in core subjects where none exist, and to validate whether these measures can predict student achievement on CST. With the assistance of our evaluation team, we will do item analysis to refine the accuracy of our assessment tools. We will also monitor the progress of students receiving supplemental interventions as we seek to reduce the number of students scoring in the Far Below Basic category. Administrators will attend data analysis meetings and, low scoring students will move up the Data Wall, showing their success.

Besides the strength of the Data Wall practice, DNCUSD's **experience with data collection** will strengthen this research: Most teachers know how to display and access test results on a district provided spreadsheet. We have assessments in place for ELA and Math for grades K-8 and many in place for other core subjects, 7-12. The [REDACTED] allows tracking individual student's benchmark assessments over five years or more. This data system can disaggregate data by grade levels, by teacher, by AYP subgroups, and other groups. We already have the ability to produce data reports for a variety of research issues. Using steps from the [REDACTED] text, we will guide teachers to use data to inform instruction, collect pertinent information on progress, and develop a successful rural school model.

Our kindergarten teachers realized that students coming from the five State Preschools and twelve Head-Start programs arrive for kindergarten with different skills than students who did not participate in the programs. Because of this discrepancy, we established a Kinder Kamp program in 2008. REACT will change the way these Early Childhood Education teachers provide instruction through the sharing of ongoing assessments, lessons, and intervention strategies. A Preschool Data Coach will organize working sessions, facilitate data collection and meetings among the sites and data about incoming kindergarteners will be made available to Preschool Teachers, the First Five Commission, and REACT to show improved readiness of five

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year olds preparing to enter DNCUSD Kindergartens in the Kinder Kamp program.

Using texts like Differentiated Literacy Coaching: Scaffolding for Student and Teacher Success (Moran), and The Literacy Coach’s Handbook: A Guide to Research-Based Practice, (Walpole and McKenna) project **Data Coaches will broaden their knowledge** about teaching practice and become the “point person” in the process and lead bi-monthly data meetings.

Professional development will be delivered by seven full-time Data Coaches. Those selected to coach will be experienced teacher leaders who can model best practices of teaching, who have the ability to work one-on-one with their peers and lead teachers in the analysis of data, and those knowledgeable about technology use in order to collect and display data for the team’s use. One Data Coach will have a Special Education background and one will have an ELL background. Using matching funds we will hire a Pre-K Data Coach as well as one Science Data Coach and one History/Social Science Data Coach to focus on grades 7-12—where most science and all history testing takes place.

**All teachers** will study the nine categories of instructional strategies that affect student achievement by reading two texts: Classroom Instruction That Works (CITW) (Marzano, 2001) and [REDACTED] (Boudett, 2005) and by attending Teacher Academies. Using the [REDACTED], all teachers will access data and use it to make decisions for instructional practices in a way that they haven’t done previously.

DNCUSD has invested in the theory that high quality instruction must occur in the general education classroom, providing effective teaching for all students, including Students with Disabilities (SwD) and English Language Learners (ELL). State adopted curriculum provides teachers suggestions for direct and small group instruction (called Universal instruction) that differentiates techniques to reach students with varying abilities. Beyond this

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premise, we realize that teachers must also plan for targeted instruction relative to state standards, individualized instruction, and intensive instruction for those falling into achievement gaps. We will train teachers to use Language! and Specially Designed Academic Instruction in English (SDAIE) for SwD, ELL, and those students scoring in Far Below Basic category. Our belief that “All children can learn,” keeps teachers seeking the most effective teaching methods and materials. With effective methods of analyzing data and Data Coaches with expertise in ELD and Sp.Ed., we will show improved student growth with ELL and SwD subgroups.

Coaching is an art. Working with adult learners who are peers, and leading teachers to take ownership of their teaching practices, is a complicated task. While developing an understanding about use of data and best practices, Data Coaches will create a working team and build collegiality. To ensure the success of the teams, Data Coaches will be recruited and trained in Year 1 of REACT prior to team implementation. During the data meetings and while planning for next steps in instruction, teachers will begin to examine teaching practice on an informal level. We will support their new learning by presenting Reflective/Strategic Teaching Session for all participants. The trainer of Data Coaches will meet with those teachers for twenty-five hours of research, lesson design, conferencing, teaching, debriefing, and reflection on practice. REACT Data Coaches will observe teachers and document teacher comments on change of practice as well as collect evidence of student progress. Our data bases will allow examination of class results so that teachers can follow their impact on student learning.

School principals will support their Data Coaches and data teams by attending all data meetings, monitoring teachers as they implement action plans, and supporting each Data Coach in new learning. Principals will recognize student and teacher achievement along the way. They will lead the research project at their site by demonstrating an understand of their school data and

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the goals set at data team meetings, through communicating success to parents and the public, and by participating on a district-wide leadership team.

To accomplish REACT Project goals and objectives we will hire seven full time Data Coaches, Data Coaches and one consultant as a Data Coach Trainer to provide research-based **Professional Development at Teacher Academies**. In **Year 1**, Data Coaches will receive instruction about Classroom Instruction That Works from the Data Coach Trainer. **Year 2** will focus on two chapters from CITW: *Setting Objectives and Providing Feedback* and *Reinforcing Effort and Providing Recognition*, with our Data Coaches doing the presenting. In **Year 3**, teachers will study *Homework and Practice*, **Year 4**, *Identifying Similarities and Differences*, and **Year 5**, *Summarizing and Note Taking*. The Data Coach Trainer will present an advanced CITW training to Data Coaches in **Year 5**.

To support teacher and administrators in **learning about the use of data**, the project will bring instructors from [REDACTED] in **Year 1** to deliver key concepts/strategies about data analysis. Additionally, textbook company staff will come to Del Norte in **Year 2** to present information about use of Language! and SDAIE techniques. While the emphasis of the first two years of the REACT Project will be to use PD to build a common base of language and understanding for the project, all schools will also begin to use benchmark assessments in core subjects, learn to utilize software for data bases, and begin data analysis discussions.

**Parts B-2 and 3: Estimated per-student and scale-up costs**

The federal cost for the implementation of the REACT program is \$2,999,784 over the course of five years. DNUSD has 3,893 students which results in a cost of approximately \$770 per student or an average of \$154 per student per year over the five year period. After teachers and administrators have received the intensive coaching and professional development required

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during the federally funded years of REACT the district will internalize the cost of the program into the normal operating budget of the district.

<b>Yearly Cost of REACT (Federal Funding)</b>						
	1/1-6/30 2012	2012-2013	2013-2014	2014- 2015	2015-16	Average
Yearly Cost	\$214,573	\$ 908,543	\$ 906,673	\$906,971	\$63,024	\$599,957 yearly
Per Student	--					\$154 (based on 3893 students)

The scale up cost will vary depending on the level of data analysis and PLC training the teachers in the district has received or if the district has trainers and coaches available within the district.

Our district has had limited training and needs to contract out for coaches.

Scale-up Costs	100,000 students	250,000 students	500,000 students
High end \$154 per student	\$15,400,000	\$38,500,000	\$77,000,000
Moderate \$105 per student	\$10,500,000	\$26,250,000	\$52,500,000
Low \$80 per student	\$8,000,000	\$20,000,000	\$40,000,000

**Part B-4: Sustainability**

**Resources to operate the project beyond the life of the grant:** DNCUSD is a regional leader for curricular projects and advancement programs; a partner with several foundations that guarantee ongoing funding beyond the grant. Following the REACT successful project, we will be in an advantageous position to solicit further funding from the private and non-profit sector to expand the program and provide support beyond our region. District funds like Title I will be used to support full time Data Coaches.

**Support of stakeholders to operate the project beyond the life of the grant:** Because REACT emphasizes teacher training, once the training is in place and the coaching has taken effect, data will continue to be collected, analyzed, and used to direct instruction and intervention. Improved teaching practices as a result of PD will continue because of its success and principal monitoring. Teachers will be empowered by leadership roles at each site and

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communication between schools will be improved. Data Coaches will be an integral part of the school team and be paid through District funding. Data teams will continue to meet at school sites and as groups of grade level teachers across the DNCUSD. There will be ongoing collaboration with teachers examining practice with their Data Coaches and peers. Curriculum and instructional strategies for ELL and SwD will be integrated into daily instruction. Preschools in the county will have a base of developmental assessments and surveys for use. Kinder Kamp will be held at all elementary schools annually. Our private sector partners will be able to continue to support REACT because the major cost is in implementing the project, not in maintaining it. These key elements of the REACT Project will remain in place following the end of grant funding and thus students will continue to close achievement gaps.

The California Endowment and the Cowell Foundation have made tentative agreements to support the REACT project by funding the District Leadership Team which will serve as a district wide communication vehicle for the REACT project. Both the California Endowment and the Cowell Foundation have made a long term commitment to Del Norte County and Del Norte Schools and have committed to fiscally supporting programs that promote student achievement **Our foundation partners will continue their financial support for additional years beyond the i3 project** with new goals to refine our progress in improving student achievement.

**Part C: Quality of the Project Evaluation Part C-1: Methods of Evaluation**

The REACT project is built on the premise that the use of a data coaching model with the tested practice of data informed instruction through a technique known as *Data Wall*, will result in improved scores on the STAR Test over three years in the areas of English Language Arts, Mathematics, Social Science, and Science. The aim of this work is to provide teachers with an integrated assessment and intervention system that helps to identify students at risk for poor learning outcomes, monitors student progress, and provides evidenced-based interventions at

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multiple levels. The Data Coaches in the model build a common knowledge among administrators and teachers about analysis of data that helps to identify student-learning needs and assists teachers to plan for appropriate interventions.

Humboldt State professors Dr. Chris Hopper the Associate Dean of Professional Studies and the Elementary Studies Coordinator and Dr. Dale Oliver the Interim Associate Dean of Natural Resources and Science and the former Mathematics Department Chair and Northern Humboldt High School District Grants Administrator Jack Bareilles, a former K-8 teacher and high school ELA and H/SS teacher will conduct evaluation to support implementation of project strategies and to measure project impact on teacher development and student achievement.

**Formative Evaluation**—Assessing implementation of project strategies: The focus of the formative evaluation for the project is on the training and practice of the Data Coaches in school settings. Most of the information gathered will be done so through surveys and self-reporting of activities. Models for such surveys are readily available for use through related projects, such as the *Examining Mathematics Coaching* Project (National Science Foundation) Project currently underway at Montana State University. A summary of information gathering is shown below:

Time	Source	Information
Year 1	Data Coaches	Survey: Knowledge of data-driven decision-making and research-based instructional practice to inform project directors and trainers of Data Coaches (once).
Year 1	Teachers	Survey: Beliefs about teaching and learning, and Instructional practice to inform Data Coaches of the development needs of the teachers at the school site (once).
Year 2–4	Data Coaches	Log: Activities and observations with teachers at the school site in the capacity as Data Coach to inform project directors and school site administrators (4 times per year).
Year 2–5	Teachers	Survey: Feedback on coaching activities and specific strategies, such as implementation of the Data Wall (2 times per year).
Year 2-5	School Site Administrators	Interview: Feedback on coaching activities and their effects on teaching and learning at the school site (2 times per year).

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The evaluators will meet with project director, administrators and Data Coaches twice per year to share information and provide an assessment of the implementation of strategies to date.

**Summative Evaluation**—Studying the impact of the project: The summative evaluation will be conducted relative to the stated goals of the project to affect the knowledge and practice of teachers and to subsequently improve learning for students in the classrooms of those teachers. Thus the focus of the evaluation will be on both teachers and students.

<b>REACT Goals, Objectives, and Performance Measures</b>
<b>GOAL 1: Implement an effective and innovative instructional model.</b>
<b>OBJECTIVE 1.1:</b> 90% of DNCUSD schools will implement data driven instruction in Pre-K to 12 <sup>th</sup> grade classrooms using Data Teams and Site/District Coordinators by the end of year 2. <i>Measure: Data Team Calendars.</i>
<b>OBJECTIVE 1.2:</b> 100% of REACT District and Data Coaches hired and trained by the end of year 1. <i>REACT Coordinator training attendance logs.</i>
<b>GOAL 2: Improve student achievement and close the achievement gap</b>
<b>OBJECTIVE 2.1:</b> 70% of non-proficient students will improve at least one proficiency level in core subjects by May 2015. <i>Measure: CST and District Benchmark assessments.</i>
<b>OBJECTIVE 2.2:</b> 70% of Limited English Proficient students will improve at least one proficiency level in core subjects by May 2015. <i>Measure: CST and District Benchmark assessments.</i>
<b>OBJECTIVE 2.3:</b> 70% of students with disabilities will improve at least one proficiency level in core subjects by May 2015. <i>Measure: CST, CMA, and/or CAPA assessments dependent on IEP.</i>
<b>OBJECTIVE 2.4:</b> District high school graduation rate will increase by 10% above the 2009 baseline rate of 80% by June 2015. <i>Measure: Annual graduation rate report.</i>
<b>Goal 3: Sustain the REACT program beyond funding</b>
<b>OBJECTIVE 3.1:</b> In 2015-16 DNUSD will continue to support the REACT project by providing Data Coaches, and continuing to provide staff with [REDACTED]
<b>Performance Measure 3.1 (process):</b> Principal leadership team data reports and HR personnel records.
<b>OBJECTIVE 3.2:</b> Principals will continue to report data results at district wide leadership meetings.
<b>Performance Measure 3.2 (process):</b> District wide leadership meeting agenda and minutes.

The research questions associated with the project goals include examination of teacher knowledge and practice, and of student achievement.

<b>REACT Research Questions</b>
1a) Does application of the coaching model lead to increased teacher knowledge about learning needs of their students?
1b) Does application of the coaching model lead to increased capacity for and implementation of

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researched-based instructional interventions in the classroom?
2) What is the effect of implementation of the coaching model on the achievement of students in the classrooms of teachers who participate with the Data Coaches.

These research questions will be investigated through the use of three quasi-experimental designs, two of which are comparison group pre-test/post-test designs and the third is an interrupted time series with comparison group design. For questions 1a and 1b, 21 project teachers will be selected (3 teachers for each Data Coach) to participate in the treatment group, and 24 comparison teachers from similar schools in an adjacent rural county will be selected as a proxy for a control group. Comparison teachers will not have exposure to the coaching model nor the implementation of the “Data Wall” at their school sites. For question 2, student achievement of all project teachers (those who are “coached”) will be collected and analyzed, and student data from teachers in the comparison group will also be analyzed.

To investigate question 1a, a search of the literature has not yet produced a well-developed instrument for measuring the sophistication or depth of teacher understanding of student learning needs based on analysis of test scores – either for individuals or groups. Thus, in the first year of the project, the Data Coaches in consultation with the project director and evaluators will create an assessment task in which teachers are asked to analyze individual and group achievement data from the CST. For example, teachers are given a set of CST test data for a class of 5<sup>th</sup> grade students and asked to identify aspects of the content (processes/procedures, concepts/ideas, experiences/applications) that students did not fully learn. A rubric which characterizes the depth of teacher responses in that assessment task (for example, beginning, emerging, developed, advanced) will be developed and tested in year 1 of the project. The assessment will then be implemented and scored on the 21 project teachers and the 21 comparison teachers at the

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beginning of each of years 2 and 5 of the project.

To investigate question 1b there are two methods for collecting data: a survey of teacher beliefs about teaching and learning in the content area, and a classroom observation protocol that measures teacher implementation of research-based instructional practices. The evaluators will use established instruments for gathering this data. For example, in math, the evaluators will use the teacher belief survey and the classroom observation protocols that are being used in the National Science Foundation-sponsored project *Examining Mathematics Coaching* (EMC) [NSF Discovery Research K-12 Program, Award No.0918326, Montana State University]. There are similar instruments available in English Language Arts, used in projects such as the *Literacy Collaborative*. The belief survey and the observation protocols will be applied to the 21 project teachers and the 21 comparison teachers at the beginning of years 2 and 5 of the project.

To investigate question 2, student achievement data from the CST ELA and Math exams will be collected for students of the 21 project teachers and 21 comparison teachers for 5 years: 2010-11 to 2013-16. This data will also be collected for all teachers in schools with REACT Data Coaches. There are various analysis tools available for this interrupted time-series data that will help determine how teacher participation in coaching activities affects student achievement.

Variables to be considered when studying effects on teachers (1a and 1b) include: teaching experience, level of participation in the coaching program, student race or poverty levels, and attitudes toward research-based instruction. Variables to be considered when studying effects on students (2) will include age, gender, special education, race, SES, and teacher experience.

The evaluation will be completed by the Humboldt State University professors, Dr. Dale Oliver and Dr. Chris Hopper and by Northern Humboldt High School District Grant Administrator Jack Bareilles. All three are independent of program implementation and will

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provide an objective evaluation. The evaluators will aggregate and analyze the evaluation data and interact with key management staff to ensure continuous utilization of evaluation results. The evaluators have extensive experience in directing and evaluating educational programs involving teacher professional development and student achievement.

Formative evaluation focuses on the training and practice of the Data Coaches. The summative evaluation focuses on the knowledge and practice of teachers, and their students' achievement.

The evaluation plan indicates that information on the PD of Data Coaches, the activities of the Data Coaches, and the responses to coaching (from the Data Coaches, teachers, and site administrators' perspectives) is regularly gathered and used to inform the project leadership of project progress.

The summative assessment focuses the impact that instituting the coaching model has on student learning. The data and structure of the study will enable researchers to identify/ describe any significant relationships between teacher factors (i.e. experience and level of participation in coaching opportunities), student factors (i.e. age and SES), and changes in student achievement.

#### **Part C-3: Resources:**

Between the three lead evaluators and graduate students or retired teachers or administrators who will conduct some site visits and teachers observations in year 2 and 5 the resources for the evaluation are sufficient for a program of this magnitude.

#### **Part D: Quality of the Management Plan Part D-1: Responsibilities, timelines, milestones**

The Leadership Team will consist of the Project Director, Director of Grants, Superintendent, and project evaluator. The REACT management team is broader based and will include the project director, site principals, Data Consultant, and Data Coaches and will be accountable to

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the Leadership Team. The Leadership Team and the Management Team will each meet monthly. The timeline for bringing the project to scale is shown in the following chart:

<b>REACT Management and Milestone Calendar</b>	
<b>Year 1</b> Jan. 2012-Jul. 2012	Recruit, hire, and train Data Coaches in RtI [REDACTED] [REDACTED] Data Meeting management, benchmark development, and CITW
<b>Year 2</b> Aug. 2012-Jul 2013	Train staff: RtI [REDACTED], [REDACTED] Data Meetings, benchmark development, and CITW
<b>Year 3</b> Aug. 2013-Jul 2014	Implement all REACT components, collect evaluation data
<b>Year 4</b> Aug. 2014-Jul 2015	Implement all REACT components, collect evaluation data
<b>Year 5</b> Aug. 2015-Jul 2016	Implement REACT components in transitional phase, collect evaluation data

During year one our focus will be on professional development to ensure that our data coaches are prepared for implementation. Ongoing activities throughout the project include:

Leadership and Management team meetings, evaluation team observations and reports, professional development sessions (ongoing), Date Team meetings, and Data Team meetings.

<b>REACT Management Plan</b>	
<b>Milestones</b>	<b>Responsibility</b>
<b>Year 1</b>	
Upon Notification of Award (November 2011)-Hire Project Director, Clerical, and Data Coaches)	Leadership Team
Monthly Leadership Team and Management Team Meetings (ongoing)	Leadership and Management Team
Finalize professional development calendar for year 1 (December 2011)	Project Director
Finalize contractual agreements (December 2011)	Project Director, Director of Grants
Confirm foundation matches (December 2011)	Project Director, Director of Grants
Implement Data Coach Training ([REDACTED], [REDACTED], Data Meeting management, benchmark development)	Project Director, Data Coaches, Data Consultant
Teacher Academy: Classroom Instruction that Works for K-3 teachers (July 2012)	Project Director, Data Coaches
<b>Year 2</b>	
Monthly Leadership Team and Management Team Meetings (ongoing)	Leadership and Management Team
Finalize PD calendar for year 2 (August 2012)	Project Director
Implement Teacher Training ([REDACTED], [REDACTED], Data Meeting management, benchmark development)	Project Director, Data Coaches, Data Consultant

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Implement Data Team Bi-Monthly meetings	Data Coaches, Consultant, Principals, Teachers
Teacher Academy: Classroom Instruction that Works for Grade 4-6 teachers (July 2013)	Project Director, Data Coaches
<b>Years 3-4</b>	
Monthly Leadership Team and Management Team Meetings (ongoing)	Leadership and Management Team
Finalize PD calendars for years 3-4 (August 2013-14)	Project Director
Continue Data Team Bi-Monthly meetings	Data Coaches, Consultant, Principals, Teachers
Teacher Academies: Classroom Instruction that Works for Grade 7-12 teachers (July 2014)	Project Director, Data Coaches
<b>Year 5</b>	
Monthly REACT administration meeting	Project Director, Principals
Data Team Bi-Monthly meetings	Principals, Teachers

DNCUSD has vast experience implementing and successfully completing large grant-funded projects. The district has imported four different masters degree programs for teachers with classes at the COE so that teachers could continue their education. Grants have brought training for integrating technology and content teaching (EETT), to improve Math and Reading instruction (CaMath-Science Project, SMART, WRMA, Reading First), and H/SS instruction with four Teaching American History grants. The District also manages several afterschool programs and Healthy Starts that are grant funded and benefit student growth. Additionally grants for Tutoring Partnership, Safety (REMS), are **examples of the district's ability to meet grant performance guidelines so that annual grant awards are made.**

For the past ten years DNCUSD has expanded our teacher training to two bordering counties, Humboldt and Curry (in Oregon). We now have teachers from eight counties coming to Del Norte for PD because we are the Region 1 Site for History/Social Science and Math projects. REACT's leadership is familiar with providing PD on a large scale and has experience with other rural districts to work with them for scale up activities.

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**Part D-2: Qualifications of Key Personnel**

The District recognizes that the leadership of Joe Hamilton's Principal, Tony Fabricius, was critical to the exceptional testing progress. He attended PD sessions to understand curriculum and promising practices, he contributed at all data meetings, he championed the successes of teachers and students, and he brought parents and other partners on board for support and interventions. His skills applied at Joe Hamilton along with his experience as a high school teacher and Dean, coach, and administrator have prepared him well to be the **REACT Project Director**. He has the respect of his fellow administrators, teachers, and Site Coordinator trainers. The District is confident that through his leadership, we will close the achievement gaps in our county. Tony has continually demonstrated he has the knowledge, communication skills, and commitment to successfully implement innovative educational programs.

Superintendent, Don Olson, a former Math and Technology teacher/leader, initiated the [REDACTED] [REDACTED] for the purpose of reviewing testing data four years ago, led teachers to select benchmark assessments, taught them how to put test results on the program, and assisted principals in accessing the data. He has continued to develop his expertise in using [REDACTED] [REDACTED] and analyzing data. He has a thorough understanding of the Data Wall and Coaching Model, is dedicated to the use of technology to monitor instruction and achievement, and has excellent working relationships with partners to this grant. Mr. Olson has established a new District Leadership Team (DELTA) and is an active member. DELTA will serve REACT by serving as a communication tool and a large PLC that will routinely provide reflective feedback of the progress of the REACT project.

DNCUSD Director of Grants and Assessment, Steve Godla, taught H/SS at DNHS, became an elementary principal, and then grant director for the District. He has written and managed

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four TAH grants, SMART and CaMSP Math projects, EETT grants through the state, and numerous others. Through Mr. Godla's leadership, DN has become the Regional Site for Technology, H/SS and Math projects. He currently coordinates with eight other county offices of education for PD. His experience with managing **grant finances, required reports, evaluation methods**, and coordinating PD for the teachers will further strengthen the success of this proposal. Mr. Godla will work with the REACT Project Director (Tony Fabricius on a daily basis) as part of his duties as the Director of Grants and Assessment.

A program the magnitude of REACT requires day-to-day direction and general and financial oversight. DNUSD will serve as the lead agency and fiscal agent for the project. Using our experience implementing other grants, we feel confident that we will successfully achieve the objectives of the proposed REACT on time and on budget.

The Data Consultant will be **Patti Thurman, a Reading Coach** from Butte County Office of Education, a regional leader who will be REACT Project's Trainer for Data Coaches. She has been working with JH for three years and can confirm the significant progress the school has made in closing the gaps in achievement. **Seven full time Data Coaches** will work with teachers over a five year time period to bring about favorable results that will translate into improved student achievement. **Part-time clerical support** for the Project will be under the Project Director's supervision. REACT Project has a significant number of experienced personnel to achieve the goals and objectives of the application on time and within budget.