APPLICATION FOR GRANTS UNDER THE

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Closing Date: MAY 09, 2011
ABSTRACT

National Professional Development Program (CFDA 84.365Z)

Title: Project SMARTTEL: Science and Mathematics for ALL: Rural Teacher Training through Technology for English Learners

Consortia Partners:

IHE: Texas Woman’s University

Partner LEAs:

Educational Service Center, Region 11;
Milsap Independent School District;
Valley View Independent School District;
Godley Independent School District;
Poolville Independent School District;
Aubrey Independent School District;
Rio Vista Independent School District;
Little Elm Independent School District;
Paris Independent School District

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The purpose of Project SMARTTEL is to develop, implement, and evaluate an online professional development program for secondary (high school and middle school) math and science teachers in rural schools. Project SMARTTEL, or Science and Mathematics for ALL: Rural Teacher Training through Technology for English Learners, is a collaborative effort of the Texas Woman’s University (TWU) and the third largest educational region service center (ESC) in Texas, ESC Region 11. Region 11, in collaboration with high EL need rural school independent school districts (ISDs) in the region, including Milsap ISD, Rio Vista ISD, Godley ISD, Valley View ISD, Poolville ISD, Little Elm ISD, Aubrey ISD, and a neighboring district, Paris ISD will partner with TWU with the aim of improving the academic literacy and language of English Learners (ELs) in Texas rural schools. In total, this project will train 54 mathematics and science teachers from rural schools, serving 18 teachers per year for three years. These participating teachers, in turn, will mentor at least one colleague in their home district in an effort to multiply the effect of the teacher training.

The first goal of the project is to improve the preparation of secondary math and science teachers to better serve ELs. This goal would be accomplished by training in-service rural mathematics and science teachers through four graduate courses in English as a Second Language, Multicultural Education, Second Language Acquisition, and a mentoring course, all provided through an online format, and combined with a face-to-face summer institute in which specialists provide up to date, research-based information on how to best serve ELs in mathematics and science secondary level classrooms. **Goal #1 addresses Invitational Priority 2 – Improves Preparation of All Teachers to Better Serve English Learners, and Competitive Preference Priority 3 – Promotes Science, Technology, Engineering, and Mathematics (STEM) Education.** The second goal is to improve high school graduation rates for ELs in rural schools, and encourage college readiness. This would be accomplished by infusing the teacher training curricula with Texas’ college and career readiness standards. **GOAL #2 addresses Invitational Priority 1- Improving Achievement and High School Graduation.** The third goal is to enable more data-based decision making in instructional practice and student outcomes with respect to both in-service and science teachers, and secondary level ELs in the content areas of mathematics and science as a result of comprehensive evaluation and assessment on the SMARTTEL program. **GOAL #3 addresses Competitive Preference Priority 2 – Enabling More Data-Based Decision-Making to improve instructional practices, policies, and student outcomes in secondary schools.**

Outcomes of the project will involve successful completion of two GPRA measures: (1) percentage of in-service teacher completers who complete state certification requirements in EL instruction as a result of the program (2) percentage of in-service teacher completers who are providing instructional services to EL students. The SMARTTEL program will meet these GPRA measures in the following ways: (1) 100% of the participants will pass the requirements for ESL supplemental certification on the ESL TExES (Texas Examination of Educator Standards) exam (Years 3,4,5) and (2) the number of in-service teacher completers will increase by 54 over the life of the project (Years 3,4,5). Other outcomes will include increased standardized test scores by ELs (by 10%) on the mathematics and science state standardized tests (TAKS or STAAR) as well as on the Texas English Language Proficiency Assessment System (TELPAS) tests. Additional process evaluations as well as summative and formative evaluative measures will be utilized throughout the project to improve the performance of the project as a whole.
Project SMARTTEL: Science and Mathematics for ALL: Rural Teacher Training through Technology for English Learners

(a) QUALITY OF THE PROJECT DESIGN (40 points)

There is a dire need for more ESL training for secondary middle and high school (6th-12th grade) mathematics and science teachers in rural Texas. Texas' rural EL population is growing at a staggering rate. Currently, 19% of the rural school population in Texas is made up of ELs (Rural Policy Matters, 2010). It was reported by the same agency in 2007 that the rural EL population was 7.8% (Rural Matters Report 2007). This represents more than an 11% increase in rural ELs in just three years.

Educational Service Center Region 11 is the third largest region in the state of Texas, and while it includes a number of urban independent school districts, 53 of the 77 total districts in Region 11 are classified as rural. A number of the rural districts in the region include school districts with EL populations as high as 20 or 30%. Others that may lower numbers of ELs are struggling with the challenging issue of how to best meet the needs of their ELs in communities which have not traditionally had second language learners. Milsap ISD, Godley ISD, Valley View ISD, Aubrey ISD, Rio Vista ISD, Little Elm ISD, and Poolville ISD have thus far agreed to partner with SMARTTEL to provide training for the mathematics and science teachers in their secondary high school and middle schools. One additional district in a neighboring region, Paris ISD, has also agreed to participate in the program. The EL enrollment at these eight participating districts ranges from 3% to as high as 18%. These eight districts alone serve 15,933 students, with 1585 classified as ELs (AEIS, 2009), representing a total EL population of 10%. It is presumed there are a great many more ELs struggling with academic language and literacy
learning in these communities, due to parents' not consenting to ESL or bilingual education services, or as a result of recently exited ELs in schools.

While some of the participating rural districts have lower numbers of EL (between 3-5%), these are often the most vocal in their need for training of their teachers. Demographic trends are shifting such that international immigration to the northern areas of rural Texas is a new and common phenomenon (Bustamante, Brown, & Irby, 2010). As evidenced by their interest and enthusiasm in the SMARTTTTEL project, teachers, as well as their support personnel and administrators, have shown that they both acknowledge the need for more training, and are willing to undertake the work involved in better serving the needs of their ELs.

(a)1. Goals, objectives, and outcomes are clearly specified and measurable.

The project design consists of 3 goals. Under each goal, objectives and projected outcomes are listed. The SMARTTTTEL team, consisting of the Texas Woman’s University project director, grant coordinator, and educational specialists in mathematics, science, technology, and career and college readiness, along with the partner region, Region 11 Educational Service Center’s (ESC) educational specialists in ESL, mathematics, and science, as well as specialists from the collaborating independent school districts (ISD) will work collaboratively to produce the projected outcomes as outlined under the following objectives. Fifty-three (56%) of Region 11’s ISDs are designated as rural. We will be working with the rural districts with the greatest need with regard to EL teacher training.

*Goal #1 addresses Invitational Priority 2 – Improves Preparation of All teachers to Better Serve English Learners, and Competitive Preference Priority 3 – Promotes Science, Technology, Engineering, and Mathematics (STEM) Education.*
This goal will be carried out through a succession of four graduate courses centering on ESL methodology, multicultural education, second language acquisition (SLA) theory, and a specialized class in mentoring, designed to help project participants mentor their mathematics and science teaching peers in the aforementioned three core areas. Core courses were chosen based on research conducted as part of a previous National Professional Development (NPD) funded project (Hansen-Thomas & Casey, 2010), and for their utility in preparing teachers for ESL certification. All four courses will be tailored to the particular needs of the rural secondary teachers (to be determined based on a formative needs assessment carried out by the SMARTTTTEL team). This will be accomplished by contextualizing the graduate coursework within the framework of secondary mathematics and science teaching and state standards.

**Objective 1.1: Develop teacher education curricula aligned to state standards and rural needs for four graduate-level courses and inservice professional development for training of secondary mathematics and science teachers on best practices for ELs.**

In the nation, 82% of rural teachers indicated they had never had training in working with ELs (Lewis, Parsad, Carey, Bartfei, Smerdon, Green, 1999). The situation is similar in Texas (Bustamante, Brown, & Irby, 2010). To significantly decrease these numbers, SMARTTTTEL will provide appropriate training to fit the teachers’ special needs. The SMARTTTTEL team will produce these materials, which will focus on (a) research-based instructional methods and strategies for improving the achievement of rural ELs in mathematics and science classes at the secondary level; and (b) lesson design and delivery aligned with the state content standards (Texas Essential Knowledge and Skills, TEKS), English Proficiency Language standards (ELPS) and college and career readiness standards (CCRS). **Projected Outcomes:** By the end of the first year of the project, four sets of materials will be produced. These will include scope and
sequence and curricular materials for three graduate-level core courses; as well as for the mentoring course. An audit of the curricula and training guide produced will confirm strong alignment with state content and language proficiency standards (TEKS, ELPS), career and college readiness standards (CCRS) and research-based instructional strategies for increasing ELs’ academic achievement, as measured by a rating scale designed for evaluation of these materials).

Objective 1.2: In years 1 and 2 recruit 18 high school mathematics and science teachers per year to receive professional development and mentor other teachers at their home campuses (for years 2 and 3). In year 3, recruit 18 middle school mathematics and science teachers to receive professional development and mentor other teachers at their home campuses (for year 4). This project focuses on the needs of high school teachers, thus the first two cohorts for year 2 and 3 will be high school science and mathematics teachers. The last cohort will be opened up to middle school mathematics and science teachers. In each of the three years, however, up to three slots will be open to educators among participating rural districts whose job functions are administrative or curricular support, but who also are responsible for the education of ELs.

The recruitment process for SMARTTTTEL teachers will be (a) the school district’s recommendation of candidates and (b) a 3.0 cumulative GPA, (c) resume, (d) a letter of recommendation from their principal or lead administrator, and (e) completed application forms. Applications will be screened by the SMARTTTTEL administrative team consisting of the project director, the project coordinator, and region 11 and/or ISD personnel. (Projected Outcomes: At least 30 high school mathematics and science teachers will be screened and 18 participants will be selected per year during years 1 and 2 (to begin the training program in years 2 and 3
respectively). At least 30 middle school mathematics and science teachers will be screened and 18 will be selected during year 3 (to begin the program in year 4). A total of 54 participants will be recruited, trained, and prepared as mentors during the life of the grant; course credit for 12 graduate hours and one 3 day summer institute funded per participant through this proposed grant).

**Objective 1.3:** The SMARTTTEL teacher participants will complete 12 hours of graduate on-line and on-site coursework and a 3-day summer institute that leads to the implementation of quality, practical and research-based educational experiences for ELs. As is in many parts of the country, in Texas, rural teachers do not have the opportunities for training as many urban teachers (Mollenkopf, 2009). In fact, 23% of vacancies in rural Texas were not filled because of the lack of qualified teachers, especially in the areas of math and ESL (RSCT, 2004). An important aim of this project is to work to fill this gap through training by graduate coursework and mentoring in ESL pedagogy.

The core course curricula will encompass the following three graduate classes (excerpted from the TWU graduate catalog for 2010 [on-line]): **EDBE 5453. English as a Second Language: Methods.** This course offers students a comprehensive examination of current principles, practices, and methods of teaching. English as a second language (ESL) through lectures and demonstrations. It also enables them to teach content areas via ESL methods. Three lecture hours a week. Credit: Three hours; **EDBE 5633. Education in Culturally Diverse Environments.** This course analyzes the theoretical foundations of contemporary multicultural education, reviews its policies and practices and explores multicultural concepts for achieving cultural pluralism. Three lecture hours a week. Credit: Three hours; **EDBE 5653. Second Language Acquisition: Theories and Practices.** This course examines the mental processes
involved in second-language acquisition and their pedagogical implications. It also provides students with the fundamentals of psycholinguistics and cross-cultural communication. Three lecture hours a week. Credit: Three hours. Finally, the mentoring course will be offered as EDBE 5903. Special Topics. Organized study of a topic in Bilingual or ESL education. Three lecture hours a week. Credit: Three hours. This course, as well as all of the three core courses will be specifically tailored to the needs of the rural math and science teachers.

The proposed coursework will help rural teachers to become better prepared to work with their ELs, and to become ESL-certified. In addition, the course work could be used as credit toward a graduate degree in their areas of specific interest. The course work will further contribute to the teachers' meeting No Child Left Behind's definition of 'highly qualified,' as they will not only earn graduate credit and training hours, but also ESL supplemental certification. The summer institute portion of the project will be conducted in collaboration with Dr. Socorro Herrera and the Collaborative for Intercultural and Multilingual Advocacy Center (CIMA) through Kansas State University. Other experts will include the Kagan Professional Development Organization, and Texas experts in ELPS training, as well as, in College and Career Readiness Standards. (Projected Outcomes: At least 90% of SMARTTTTEL teacher mentors will demonstrate high academic achievement by maintaining a minimum of 3.0 GPA each semester. In addition, they will demonstrate their competency by the successful completion of 12 hours of graduate designated coursework – 3 credit hours per semester: summer, fall, spring, and fall, and the summer institute. At least 90% of the teacher mentors will successfully complete the training program [this percentage is considered a realistic target based on past experience with this type of rigorous training program, teacher turnover and personal issues however, a repayment clause will be built into the program for those who do not fulfill all
requirements]. Participants' ability to incorporate best practices into their own school settings will be gauged by student achievement measures including district benchmark data and state accountability data on standardized tests (Texas Assessment of Knowledge and Skills, TAKS; State of Texas Assessments of Academic Readiness STAARS) i.e., students of SMARTTTTEL teachers will perform at or above region/district averages for ELs in mathematics and science, as well as on Texas English Language Proficiency Assessment System, or TELPAS, as described later in Objective 3.1) and by teacher evaluations (as described later in Objective 3.2).

Objective 1.4: As part of their graduate coursework, SMARTTTTEL teachers will construct a portfolio of multimedia mentoring materials that illustrate in-depth information aligned with the foci of the program. This portfolio will be produced based on the scope and sequence materials developed as outlined in objective 1.1 (for the mentoring course), and will be used by participants as a resource to provide inservice mentoring to peers on their campus. (Projected Outcomes: A minimum of 90% of SMARTTTTEL teacher mentors will construct high-quality multimedia materials as measured by scoring rubrics for projects in years 1-4 of the program. A total of 54 portfolios will be produced and a minimum of 39 will be selected based on that rubric and posted on the project's website).

Objective 1.5: During years 3, 4 and 5 SMARTTTTEL teacher mentors will provide mentoring that is aligned with the project's foci described in Objective 1.1 to at least another content teacher at their home campuses. (Projected Outcomes: Each SMARTTTTEL teacher will mentor at least one other secondary mathematics or science teacher in their home district or campus, as evidenced by a quarterly meeting with their mentee during the period of the three content classes, and once a month during the mentoring course (which will follow the three content classes and be taught as an special topics course). In the mentoring course,
SMARTTTTEL mentor teachers will work closely with their mentee and under the supervision of the TWU instructor, to provide support in the areas of need with respect to EL education as designated by the mentor and mentee. Seventy-five percent of mentees will pass a criterion-referenced evaluation.

**Objective 1.6: SMARTTTTEL teacher mentors in the areas of mathematics and science will earn ESL supplemental certification.** It has been projected that Texas will have to increase the number of ESL certified teachers by 58% to meet its growing needs (Consolidated State Performance Reports, U.S. Department of Education, 2006-07. In *Education Week* (2009, January 8). Vol. 28, No. 17.). Further, very few secondary teachers in the region that SMARTTTTEL will serve are ESL certified. In addition, many of Region 11’s rural districts are beginning to require *all* of their teachers to be ESL certified (personal communication, Kathy Wright-Chapman, ESL Director for Region 11, April 15, 2011). Thus, this objective of promoting certification responds to the districts’ needs. *(Projected Outcomes: 100% of all SMARTTTTEL participants will seek and earn ESL supplemental certification. The project will pay the test fee per participant. It is expected that at least 75% of SMARTTTTEL teachers will pass on the first attempt. The project will budget for three test fees for 25% of the participants).*

(a)2. **The design of the proposed project reflects up-to-date knowledge from research and effective practice.** Consistent with the goal of improving EL student achievement, the SMARTTTTEL team will collaboratively create and deliver a professional development program that is focused on Texas Essential Knowledge and Skills (TEKS), state standards for English language proficiency (ELPS), and College Readiness standards, and that incorporates scientifically-based methods of instruction and lesson design for ELs. Furthermore, it will
include assessments appropriate for the needs of secondary level rural ELs in mathematics and science classes.

(a)2.i Research-based English as a Second Language (ESL) teaching methodologies.

ESL education focuses on best teaching practices for the instruction of ELs. The SMARTTTEL curriculum will be broadly framed according to the Center for Research on Education, Diversity, and Excellence’s (CREDE) five standards for effective pedagogy: (1) Teachers and Students Producing Together, (2) Developing Language and Literacy Across the Curriculum, (3) Making Lessons Meaningful, (4) Teaching Complex Thinking, and (5) Teaching through Conversation.

(a)2.ii Up-to-date knowledge from effective practice. ESL pedagogy. With regard to specific types of methodology, SMARTTTEL will draw on ESL teaching methods and research-based teaching approaches such as the Sheltered Instruction Observation Protocol (SIOP), the Specially Designed Academic Instruction in English (SDAIE) and Guided Language Acquisition Design (GLAD). Recent research studies have shown that these approaches are effective and beneficial in the instruction of ELs. SIOP, for example, has been field-tested and was proven to have a positive effect on academic literacy development for ELs (Echevarria, Short, & Powers, 2006). Research on how ELs learn supports the three bases from these approaches: knowledge of the English language, content knowledge (i.e., mathematics, science), and knowledge of how instructional tasks are to be accomplished. Recent texts have drawn on explicit methodologies while contextualizing them within content areas. The SMARTTTEL curriculum will incorporate innovative resources (more in Appendix) such as the following:

Action and activities to achieve objective. Course curricula will be designed around up to date effective pedagogical strategies for ELs. The SMARTTTTEL team, consisting of TWU faculty and staff, and Region 11 representatives will work in concert to infuse the curriculum of the four courses with these important concepts. Assessments for SMARTTTTEL teachers will evaluate these concepts as well. Additionally, the summer institute will bring in experts in ESL methodology to provide intensive face-to-face training for the SMARTTTTEL teachers.

TEKS, ELPS and CCRS will be highlighted and emphasized in the core curriculum (three courses), as well as in the mentoring course. The SMARTTTTEL curriculum will focus on ways to incorporate all of these standards within ESL pedagogy in mathematics and science contexts. Texts such as the following will support this learning:


In year 1 the SMARTTTTEL team will provide training in innovative ways in which to include ELPS and TEKS into the teachers’ lesson plans. CCRS have been infused into the TEKS for mathematics and science, however, the SMARTTTTEL team will work to bring the CCRS to the forefront of the teachers’ academic planning. Additionally, the summer institute will bring in experts in ELPS, CCRI to provide intensive face-to-face training for the SMARTTTTEL teachers.

**Technology.** Studies conducted with teachers in rural settings report unique challenges arising from feelings of professional isolation and frustrations with the limited (and often inequitable) access to an array of instructional resources (Lauer, Stoutemyer, & Buhler, 2005; Branburg,
2001). Written into the Congressional Record, 2001, is the statement, "Technology can offer rural students educational and employment opportunities they otherwise might not have... The development of or the entering into a consortium with other local education agencies, institutions of higher education, ... with the capacity to contribute to technology training..." is highly encouraged. Appropriate technology use, therefore, has the potential to alleviate such rural challenges via creation and development of professional communities offering both collaborative spaces for learning and multiple opportunities for peer interaction and support.

As stated in McRel’s Rural Technology Initiative (RTI), rural teacher participants reported an increase in their instructional effectiveness resulting from online professional development, which included instruction in the appropriate use of technological tools for teaching and learning (Lauer, Stoutemyer, & Buhler, 2005). Online professional development has the potential to furnish a variety of benefits not the least of which is its capacity to disseminate information focused upon multiple avenues by which to improve student learning (National Research Council, 2007). Through virtual exploration included in SMARTITTEL curricula, rural teachers will procure access to additional resources critical to the augmentation of study and the enhancement of educational experiences for all students. Access to professional journals and magazines via the web will give rural educators a vantage point from which to view the most current professional information and trends. Training in the use of collaborative spaces such as blogs and wikis may transfer directly to the classroom in the form of: class newsletters or webpages as informational hubs for parents, teachers and students; and networking connections with other educators to procure additional resources, community connections, advice from experts in their field, or ideas on problems/situations which require specific areas of expertise
Online professional development that SMARTTEL will offer will help meet the needs of rural educators as it will provide opportunities for association with and participation in multiple communities of practice. Through targeted and focused interaction with other educators in virtual spaces, teacher mentors may begin to acquire both access to resources and a sense of control over their own professional learning in a manner similar to that of their more urban/suburban counterparts. From such experiences, participants will acquire the tools necessary to appropriately evaluate web resources for accuracy and support of student learning. Transfer to the classroom will become evident when rural teachers and their students use the web as a venue by which to author and exchange ideas.

**Action and activities to achieve objective.** SMARTTEL teachers in rural areas with long distance access to professional development will gain the following opportunities through their participation. Core courses, the mentoring course, as well as the summer institute portion of the professional development program will include these technological opportunities, activities, and benefits: (1) Opportunities for video conferencing (synchronous person to person OR group conferencing) utilizing a program such as Wimba which permits multiple individuals to participate in “live” discussions, share documents, and interact via features such as whiteboards and chat windows. (2) Access to compressed video facilitation of distance learning connectivity between instructors and students in remote settings (off site). (3) Use of and training in open source collaborative tools such as blogs, wikis, webquests, etc. (4) Participation via content management systems such as Blackboard for distance instructional delivery inclusive of modules, email, discussion boards, and group collaborative spaces. (5) Mentoring support of student/student interaction and student/content interaction via a variety of media.
The program will be driven by professional competencies in the areas of ESL Education and Technology, as well as clinical experiences that each SMARTTTEL teacher mentor will be expected to complete. TWU, Region 11, and participating ISDs are committed to the design, development and delivery of this professional development program. SMARTTTEL will prepare educators to work with the range and diversity of ELs in Grades 6-12 that is reflected in the rural districts and Region 11. The program calls for each teacher mentor to complete coursework in the area of ESL aligned with professional field experiences tailored for rural settings. That is, the teachers will gain knowledge the ESL curricula offered through the core courses, by applying it to the classes in which they teach. The teachers will be expected to, for example, develop and utilize lesson plans based on research-based ESL strategies in their content classes, such as Algebra I. They will also be asked to view issues or problems they experience with their ELs with a multicultural lens and attempt to understand their students in a new way. These field experiences are very important as they link the university coursework to that which needs to occur in effective mathematics and science classrooms. Thus in order to equip participants to improve achievement of ELs, this professional development program is organized around the following outcomes:

1. Design ESL instruction for mathematics and science classrooms;
2. Adapt curriculum and teaching methods for students with cultural/linguistic diversity;
3. Analyze and select curricular tools according to scientifically-based criteria;
4. Work collaboratively with district-based teams to organize and deliver instruction;
5. Design and respond to cultural and linguistic issues that affect academic development;
6. Evaluate achievement and adapt instruction according to meaningful outcomes.

**GOAL #2 addresses Invitational Priority 1- Improving Achievement and High School Graduation**
Objective 2.1: Percentage of SMARTTTTEL teachers’ high school students who meet graduation requirements will be at least 10% higher than those math and science teachers’ who have not participated in the program. Texas ELs from rural schools underperform on high stakes tests, and Latina/os/Hispanics (the largest ethnic group of ELs in the state) hold nearly triple the dropout rate that Whites do (TEA, 2007-2008). Further, the high school EL dropout rate in Region 11 has been somewhat sporadic over the past 6 academic years, ranging from a low of 16% in 2004 to a high of 31.8% (AEIS). Most recently, the region’s average EL dropout rate was 29.8% in the 2009-2010 school year (AEIS). The EL high school completion rate has the curriculum of the SMARTTTTEL courses will be infused with career and college readiness standards and will increase high school graduation rates of ELs by promoting high academic standards and use of research-based ESL methodology. (Projected Outcomes: the percentage of high school students taught by SMARTTTTEL teachers who meet graduation requirements will be 10% higher than the region’s average compared to EL students served by non-SMARTTTTEL teachers).

GOAL #3 addresses Competitive Preference Priority 2 – Enabling More Data-Based Decision-Making to improve instructional practices, policies, and student outcomes in secondary schools. The project will promote data-based decision making through a combination of quantitative and qualitative research techniques assessing the effectiveness of the project on both the teachers who participate, as well as their high school and middle school ELs.

Objective 3.1: SMARTTTTEL teachers’ instructional practices reflect and integrate principles of research-based effective practice such as sheltered instruction. The SIOP, or Sheltered Instruction Observation Protocol, has been field tested and found to be a valid and reliable measure of sheltered instruction (Guarino, Echevarria, Short, Schick, Forbes, & Rueda,
2001). (**Projected Outcomes:** 80% of teacher mentors will score at least 100 (out of a maximum of 120) in the SIOP (observation protocol), meaning that they are effectively implementing ESL principles and methods in instruction of EL students.)

**Objectives 3.2/3.3:** Percent of SMARTTEEL teacher mentors' students that meet minimum expectations on the state standardized test will be at least 10 percent points higher than the district or region average for ELs taking the same grade and subject test in a given academic year. Because math and science content areas are tested at different times during the academic year, student achievement data will be collected annually from each participating SMARTTEEL teacher. These data will be compared to the region's averages for grade level and content for other ELs at the same level and content area. Thus, our first measure of impact is the extent to which the SMARTTEEL teachers' ELs perform on the state standardized test, the Texas Assessment of Knowledge and Skills (TAKS) or the new (for 2012) assessment, State of Texas Assessments of Academic Readiness (STAARS) relative to the region or district average for the same grade and content. Since we will be recruiting from the entire region comprised of 53 rural districts, we will need to know from where the teachers come in order to determine a baseline for comparison. That is, if the majority of the SMARTTEEL teachers are from the same district, it would be more reliable to compare SMARTTEEL teachers' students' achievement for the district, than for the region as a whole.

For example, if the SMARTTEEL teacher trainer is a 10th grade math teacher, the passing rate of the ELs in this teacher's class would be at least 10 percent higher than all the ELs taking the science TAKS in the district or region at that grade level. In the case of SMARTTEEL teachers who teach science for grades 6, 7, or 9 (where science is not tested by the state), we will use alternate measures such as the district' adopted benchmark tests. (**Projected Outcomes:** The
percent of SMARTTTEL teachers' ELs who demonstrate a higher level of proficiency on the TAKS or STAARs will be at least 10 percent higher than the district or region average in the given academic year. Baseline data for SMARTTTEL will be obtained from the academic year prior to the teachers' participation in the project. To assess SMARTTTEL program effectiveness, student achievement data from ELs of Y2 completers will be collected in Y2, Y3, Y4, and Y5; data from ELs of Y3 completers will be collected in Y3, Y4, and Y5; and data from ELs of Y4 completers will be collected in Y4 and Y5. Baseline and intervention data will be analyzed for program effectiveness using control groups).

Objective 3.4: Each EL served by an SMARTTTEL teacher will perform higher than the previous year on the Texas English Language Proficiency Assessment System (TELPAS) as measured either by numerical score or level of proficiency. The second measure of impact is how well the SMARTTTEL teachers' students score relative to their individual prior year's test scores. (Projected Outcome: Ninety percent of SMARTTTEL teachers' students will increase their grade standard score on the TELPAS by either 10% or one level of proficiency from the previous year).

(a)4. Plan to carry out activities. The SMARTTTEL team consisting of the Project Director, Grant Coordinator, and graduate students at TWU will organize and participate in curriculum development; lead recruitment; teach courses; organize summer institute; collect quantitative and qualitative data sources; oversee mentoring; support teacher participants; and implement formative evaluation recommendations, among other activities. Region 11 and math, science and ESL specialists will participate in curriculum development, promote the project, and facilitate recruitment and selection of participants. Participating Rural Independent School Districts will participate in curriculum development, provide participants as well as facilitate recruitment; assign a contact in the district with whom the project can be organized; facilitate mentoring of
teachers; and provide standardized test scores for teachers to include the TAKS or STAARS, TELPAS, and benchmarks. Detailed tasks and responsibilities are presented in the Quality of Management Plan.

(a)5. Resources to be provided by each partner TWU will provide online coursework as well as specialists on ESL, mathematics and science education, career and college readiness, and technology-based education, supervision and implementation of programmatic and evaluation activities. Region 11 ESC will have coordinating functions with ISDs and, in collaboration with these, it will provide data and physical infrastructure for meetings.

(a)6. Specific activities that partners will contribute to the project during each year

Table 1. SMARTTTEL partners’ activities during the life of the grant (TWU, Region 11 ESC (R11), Independent School Districts (ISDs))

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<tr>
<th>Activity</th>
<th>Years</th>
<th>Contributing partner</th>
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<tr>
<td>Curriculum and materials development</td>
<td>1</td>
<td>TWU, R11, ISDs</td>
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<tr>
<td>Recruitment and selection</td>
<td>1, 2 and 3</td>
<td>TWU, R11, ISDs</td>
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<tr>
<td>Selection of multimedia projects for mentoring</td>
<td>2, 3, 4 and 5</td>
<td>TWU, R11, ISDs</td>
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<td>Ensure 1 semester of mentoring per participant</td>
<td>3, 4 and 5</td>
<td>TWU, ISDs</td>
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<tr>
<td>Provide/collect baseline and intervention data on EL student achievement</td>
<td>1-5</td>
<td>R11 and ISDs identify and provide data to TWU</td>
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<tr>
<td>Collect data on teacher mentors application of principles of research-based effective practice</td>
<td>1-5</td>
<td>TWU, R11 and ISDs</td>
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</tbody>
</table>
(a) **Identity of each member of the consortium.** Region 11 representatives have pledged to support the project (see letter in Appendix). Independent school districts that have committed to partnering in the project include Milsap ISD; Valley View ISD; Godley ISD; Poolville ISD; Aubrey ISD; Rio Vista ISD, Little Elm ISD, and Paris ISD. Texas Woman’s University will be the fiscal agent.

(b) **QUALITY OF PROJECT PERSONNEL (10 points)**

(b)1. **Project SMARTTEL** will encourage applications for employment from persons who are members of groups that have been traditionally underrepresented.

Project personnel listed in this proposal belongs to a minority ethnic group and/or to an underrepresented gender group. TWU and Region 11 are committed to recruiting and preparing individuals from underrepresented groups and they will encourage applications from women, minorities, and other underrepresented groups in advertisements for other positions (i.e., graduate assistants). In this proposal, the Grant Coordinator will function as a diversity recruiter to advertise and recruit with emphasis on attracting project applicants and mathematics and science teachers (grant recipients) from underrepresented groups (50% of available scholarships for individuals from these groups has been set as the recruitment and retention target).

(b)2. **Qualifications of the project director,** *Dr. Holly Hansen-Thomas* is Assistant Professor and Project Director of an NPD Grant in the Department of Teacher Education, College of Professional Education at TWU. An educator with over 20 years of experience in second language teaching in the U.S. and abroad, including as a Fulbright Fellow in Hungary, Dr. Hansen-Thomas is bilingual and biliterate (Spanish and English) and holds Texas teacher certification in ESL, English, Spanish, and Bilingual Education. She has taught in secondary ESL settings and has also worked with ELs in secondary mathematics and science classrooms.
Further, she has written a book entitled *English Language Learners and Math* (2009) as well as numerous peer-reviewed articles and book chapters on the education of ELs in mathematics and science public school classes. She has experience in the development and delivery of face-to-face and on-line undergraduate and graduate ESL, bilingual education, and qualitative research courses. Additionally, she is a member of Texas’ College and Career Readiness Institute Collaborative, as well as many other educational and research organizations. (*Major Responsibilities: administrative management, teach courses, dissemination facilitator; 50 percent FTE per semester per academic year*).

(b)3. Other key personnel. **Project Coordinator, Liliana Grosso** will serve as the Project Coordinator. Ms. Grosso is currently the grant coordinator (GC) of an NPD grant with the Department of Teacher Education, College of Professional Education at TWU. She has over 5 years of experience coordinating TTT and NPD grants. She is Spanish-English biliterate, and has training in Bilingual/ESL education and non-profit management, and holds a Master’s degree in Communications. (*Major responsibility: Manage student financial assistance, assist in student recruitment, maintain student databases, follow up on program completers, collect and enter data, and write preliminary reports, 100% FTE.*)

**External Evaluation Specialist. West Texas Office of Evaluation and Research (WTER)** is housed in Killgore Research Center on the campus of West Texas A&M University (WTAMU) in Canyon, Texas. WTER provides a multidisciplinary approach to evaluation through its research associates who are WTAMU faculty holding doctorates in statistics, education, communication, and political science and staff with K-16 mathematics teaching experience as well as experience directing NSF-funded science and mathematics education projects. Associates have completed training at Western Michigan University’s Evaluation Center, the Evaluators’ Institute, and/or American Evaluation
Association sponsored workshops. WTER currently provides external evaluation for projects funded by the Department of Education, National Science Foundation, National Institutes of Health, National Aeronautics and Space Administration, Texas Higher Education Coordinating Board, Texas Education Agency, and Thurgood Marshall College Fund. (Major responsibilities: WTER will review information about the data grant partners have collected during the year, the conclusions they have drawn from the data, and the actions they have taken based on the data. It will then provide the project an annual external evaluation report. Included in the report will be the project’s status as to attainment of its goals, WTER’s recommendations for actions the project should consider, and the project’s response to previous WTER recommendations).

Graduate Student Assistants. Two graduate students from the ESL/bilingual program at TWU will assist in carrying out research and clerical duties. (Major responsibility: assist project coordinator and project co-directors, 20 hours a week for 12 months). Specialists. Dr. Barbara Lerner serves as the College Readiness Advisor for the state of Texas’ Dallas/Fort Worth region, as well as the Director of K-16 Initiatives at TWU. She was involved in the development and dissemination of Texas’ College and Career Readiness Standards and was the architect of a successful nationally funded librarian training project in Texas. Dr. Lerner will contribute her time as an in-kind contribution on an as-needed basis to facilitate development of CCRI curricula in SMARTTEL core graduate coursework. Dr. Rene Paulson is currently the statistician for TWU, owner and senior statistician for Elite Research, LLC, and has earned a Ph.D. and Masters degree in experimental psychology from Texas Christian University after obtaining her Bachelors degree from Ohio University. As TWU’s Biostatistician, Dr. Paulson consults with faculty and graduate students on research design, statistics, software training, and manuscript preparation for their grant and personal research. Dr. Paulson has considerable experience in
grant development and will serve as a consultant by providing her time on an in-kind basis in the
design of the quantitative analysis (see Goal 3). DiAnna Hynds is Associate Professor of
Biology and the PI of a National Science Foundation’s (NSF) grant in Science, Technology,
Engineering and Mathematics (S-STEM) to provide scholarships to students from diverse
backgrounds to attend university. Dr. Karen Dunlap is an Assistant Professor in Curriculum and
Instruction at TWU and holds expertise in educational technology. She is a Quality Matters
certified instructor and also serves as Co-PI on an OELA NPD grant. Ms. Cathy Banks is a
Mathematics educator and past director of the TWU Science and Mathematics Center for
Women, designed to encourage women to become interested in math and science. She was also
the director of the Women in Engineering Scholarship program at TWU.

(c) QUALITY OF THE MANAGEMENT PLAN (20 points)

(c)1. Management plan: responsibilities, timelines, and milestones. Table 1 specifies project’s
goals, objectives and related activities, including a timeline for conducting activities,
benchmarks, and person(s) responsible.

(c)2. Time commitment of project director and other personnel. The time commitment of
personnel in SMARTTTTEL will be: Dr. Holly Hansen-Thomas will devote 50% of her time per
academic year to the direction of the project, course design and teaching, and evaluation. The
Grant Coordinator will devote 100% of her time to facilitate grant activities and assist project co-
director. In addition, two graduate student assistants will perform research and clerical duties.
Tables 2 (for PI and partner) and 3 (for Grant Coordinator) show the project’s person loading
charts with the responsibilities of key personnel and the number of staff days devoted to each
activity.
<table>
<thead>
<tr>
<th>Activities</th>
<th>Benchmarks</th>
<th>Timeline</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1:</strong> Improve preparation of all teachers to better serve English learners and promote science, technology, engineering, and mathematics (STEM) education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Objective 1.1:</strong> Develop teacher education curricula aligned to state standards and rural needs for four graduate-level courses and in-service professional development for training of secondary mathematics and science teachers on best practices for ELs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.a. Conduct needs assessment</td>
<td>Interim evaluations and final evaluation</td>
<td>Months 1-6</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
<tr>
<td>1.b. Design, create, and audit materials to determine alignment with content, college and career readiness and English language standards and research-based strategies</td>
<td>Materials published</td>
<td>Month 11</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
<tr>
<td>1.c. Produce scope, sequence, and curriculum materials for graduate courses</td>
<td>Materials published</td>
<td>Month 11</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
<tr>
<td>1.d. Produce mentoring guide for 1 semester</td>
<td>Materials published</td>
<td>Month 11</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
<tr>
<td>Activities</td>
<td>Benchmarks</td>
<td>Timeline</td>
<td>Staff</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>------------------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Objective 1.2:</strong> In years 1 and 2 recruit 18 high school mathematics and science teachers per year to receive professional development and mentor other teachers at their home campuses. In year 3, recruit 18 middle school mathematics and science teachers to receive professional development and mentor other teachers at their home campuses (for year 4).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.a. Recruit and hire Grant Coordinator (GC)</td>
<td>Qualifications met</td>
<td>Month 2</td>
<td>TWU</td>
</tr>
<tr>
<td>2.b. Convene planning group for recruitment of teacher mentors</td>
<td>Involve key personnel</td>
<td>Month 3</td>
<td>GC</td>
</tr>
<tr>
<td>2.c. Enroll teacher mentors in SMARTTEL program</td>
<td>Enroll 18 participants in each Y1, Y2 &amp; Y3</td>
<td>Months 11, 23 &amp; 35</td>
<td>TWU, R11, GC</td>
</tr>
<tr>
<td><strong>Objective 1.3:</strong> The SMARTTEL teacher participants will complete 12 hours of graduate on-line and on-site coursework and a 3-day summer institute that leads to the implementation of quality, practical and research-based educational experiences for ELs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.a. Provide instruction in research-based teaching methods, lesson design and delivery, and assessment for EL students</td>
<td>Complete training program and meet competency criteria</td>
<td>Months 29-53</td>
<td>TWU, R11 and ISDs</td>
</tr>
<tr>
<td>Activities</td>
<td>Benchmarks</td>
<td>Timeline</td>
<td>Staff</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>3.b. Ensure that teacher mentors maintain high academic achievement in program</td>
<td>90% maintain a 3.0 GPA</td>
<td>Months 11-53</td>
<td>TWU and GC</td>
</tr>
<tr>
<td>3.c. Ensure that teacher mentors successfully complete SMARTTEL Program</td>
<td>90% complete program</td>
<td>Months 29-53</td>
<td>TWU &amp; GC</td>
</tr>
</tbody>
</table>

**Objective 1.4:** As part of their graduate coursework, SMARTTEL teachers will construct a portfolio of multimedia mentoring materials that illustrate in-depth information aligned with the foci of the program.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Benchmarks</th>
<th>Timeline</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.a. Supervise creation of multimedia materials by teacher mentors</td>
<td>54 sets of materials produced</td>
<td>Months 11-53</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
<tr>
<td>4.b. Identify sets of materials of very high quality as measured by SMARTTEL rating scale for ESL instructional materials</td>
<td>A minimum of 13 sets of materials identified in yrs 2-5</td>
<td>Months 11-53</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
<tr>
<td>4.c. Disseminate high quality materials on-line</td>
<td>Minimum 13 sets of materials posted in yrs 2-5</td>
<td>Months 18-53</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
<tr>
<td>Activities</td>
<td>Benchmarks</td>
<td>Timeline</td>
<td>Staff</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-----------------------------------------</td>
<td>--------------</td>
<td>---------------------</td>
</tr>
<tr>
<td><strong>Objective 1.5:</strong> During years 3, 4 and 5 SMARTTELE teacher mentors will provide mentoring that is aligned with the project's foci described in Objective 1.1 to at least another content teacher at their home campuses.</td>
<td>54 teachers mentored during program</td>
<td>Months 29-53</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
<tr>
<td>5.a. Ensure that each teacher completes 1 semester-mentoring of at least another content teacher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.b. Administer ESL criterion-based evaluation of teacher mentees</td>
<td>75% passing rate</td>
<td>Months 0, 42 &amp; 54</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
<tr>
<td><strong>Objective 1.6:</strong> SMARTTELE teacher mentors in the areas of mathematics and science will earn ESL supplemental certification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.a. Provide financial support with ESL certification</td>
<td>100% passing rate of ESL TExES</td>
<td>Months 29-53</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
<tr>
<td><strong>Goal 2: Improve achievement and High School graduation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Objective 2.1:</strong> Percentage of SMARTTELE teachers' high school students who meet graduation requirements will be at least 10% higher than those math and science teachers' who have not participated in the program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td>Benchmarks</td>
<td>Timeline</td>
<td>Staff</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
<td>-----------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>l.a. Collect baseline and intervention data of High School ELs’ academic achievement on TAKS and alternative assessment</td>
<td>Cohort 1: Y1-Y5, Cohort 2: Y2-Y5</td>
<td>Months 1-60</td>
<td>TWU, R11, GC</td>
</tr>
</tbody>
</table>

**Goal 3:** Enable more data-based decision-making to improve instructional practices, policies, and student outcomes in secondary schools.

**Objective 3.1:** SMARTTTTEL teachers’ instructional practices reflect and integrate principles of research-based effective practice such as sheltered instruction.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Benchmarks</th>
<th>Timeline</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives 3.2/3.3:</strong> Percent of SMARTTTTEL teacher mentors' students that meet minimum expectations on the state standardized test will be at least 10 percent points higher than the district or region average for ELs taking the same grade and subject test in a given academic year.</td>
<td>Cohort 1: Y1-Y5, Cohort 2: Y2-Y5, Cohort 3: Y3-Y5</td>
<td>Y1-Y5</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
<tr>
<td>1.b. Collect baseline and intervention data of ELs' academic achievement on TAKS</td>
<td>Cohort 1: Y1-Y5, Cohort 2: Y2-Y5, Cohort 3: Y3-Y5</td>
<td>Y1-Y5</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
</tbody>
</table>

**Objective 3.4:** Each EL served by an SMARTTTTEL teacher will perform higher than the previous year on the Test of English Language Proficiency (TELPAS) as measured either by numerical score or level of proficiency.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Benchmarks</th>
<th>Timeline</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.b. Collect baseline and intervention data of ELs' academic achievement on TELPAS</td>
<td>Cohort 1: Y1-Y5, Cohort 2: Y2-Y5, Cohort 3: Y3-Y5</td>
<td>Y1-Y5</td>
<td>TWU, R11, ISDs &amp; GC</td>
</tr>
<tr>
<td>Responsibilities Related to Project Objectives</td>
<td>Y 1</td>
<td>Y 2</td>
<td>Y 3</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Design and produce coursework and mentoring guides</td>
<td>60</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Provide input on consulting groups to be hired</td>
<td>12</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Screen and recruit students</td>
<td>14</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Supervise production of multimedia projects and mentoring delivery</td>
<td>0</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Participate in TWU-R11 Task Force Meetings</td>
<td>28</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Teach coursework (part of state FTE)</td>
<td>0</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Supervise mentoring visits to schools</td>
<td>0</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Provide on-going formative evaluation data on plan implementation</td>
<td>0</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Assess progress toward plan's goals</td>
<td>0</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Spearhead analysis of the program effectiveness</td>
<td>11</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Total # of days = 5 days X 50 weeks/2 = .50 FTE</td>
<td>125</td>
<td>125</td>
<td>125</td>
</tr>
</tbody>
</table>
Table 4. SMARTTTTEL Grant Coordinator (dedicated days per year)

<table>
<thead>
<tr>
<th>Responsibilities Related to Project Objectives</th>
<th>Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>Y4</th>
<th>Y5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct research on consultants to be hired</td>
<td>33</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Assist SMARTTTTEL task force and teacher mentors in curriculum development activities</td>
<td>90</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Manage teacher mentors' scholarships and stipends</td>
<td>5</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Advertise program, articulate screening potential recruits</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Recruit teacher mentors</td>
<td>25</td>
<td>27</td>
<td>27</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Advise teacher mentors, monitor academic achievement</td>
<td>6</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>49</td>
</tr>
<tr>
<td>Maintain teacher mentor databases</td>
<td>6</td>
<td>20</td>
<td>20</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Facilitate communication between TWU &amp; R11</td>
<td>15</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Conduct mentoring visits to schools</td>
<td>0</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Coordinate field-based activities for teacher mentors</td>
<td>0</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>10</td>
</tr>
<tr>
<td>Plan for TWU-R11 task force meetings</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Write preliminary reports and minutes</td>
<td>13</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Collect baseline and intervention data</td>
<td>12</td>
<td>14</td>
<td>14</td>
<td>26</td>
<td>35</td>
</tr>
<tr>
<td>Report progress toward plan's goals</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Assist in completing analysis of program effectiveness</td>
<td>10</td>
<td>11</td>
<td>11</td>
<td>22</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total # of days= 5 days X 50 weeks=1.0 FTE</strong></td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
</tbody>
</table>

Goals 1 and 2

Goal 3
(d) QUALITY OF THE PROJECT EVALUATION (30 points)

(d)1. **Evaluation methods are thorough, feasible, and appropriate to the goals, objectives, and outcomes.** Evaluation methods are based on both student performance and teacher performance. Table 5 outlines evaluation measures that will be utilized.

(d)2. **Evaluation methods include objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data.** Table 5 indicates how the evaluation plan is aligned with the goals, objectives and activities described under the Quality of Project Design and explains how each objective will be evaluated and when the qualitative and quantitative measures will be collected, analyzed and reported on project measures and GPRAs.

(d)3. **Evaluation methods provide performance feedback and permit periodic assessment of progress toward achieving goals and intended outcomes.** Performance feedback will be gleaned from both teachers’ achievement in the SMARTTEL program (coursework, grades, SIOP scores, mentoring feedback, etc.) as well as from the SMARTTEL teachers’ students (standardized assessments). We will utilize this information to fulfill our objectives and improve our progress as we work towards meeting our goals.
<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Performance Target</th>
<th>Data Sources</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 1.1:</strong> Develop teacher education curricula aligned to state standards and rural needs for four graduate-level courses and in-service professional development for training of secondary mathematics and science teachers on best practices for ELs in rural schools.</td>
<td>Strong alignment identified as measured by TEKS, ELPS and CCRS for graduate courses, and by the SMARTTTEL Rating Scale for ESL Mentoring Materials</td>
<td>Needs assessment, scope and sequence, standards, mentoring guide</td>
<td>Months 1-10</td>
</tr>
<tr>
<td><strong>NPD Program:</strong> Degree to which professional development of teachers is aligned with State content standards in academic subjects, State English language proficiency standards, and college and career readiness standards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Objective 1.2:</strong> In years 1 and 2 recruit 18 high school mathematics and science teachers per year to receive professional development and mentor other teachers at their home campuses. In year 3, recruit 18 middle school mathematics and science teachers to receive professional development and mentor other teachers at their home campuses.</td>
<td>Enroll 18 teachers per year (years 1-3)</td>
<td>TWU course rosters</td>
<td>Months 12, 24 &amp; 36</td>
</tr>
<tr>
<td><strong>Project:</strong> Number of teacher mentors enrolled in SMARTTTEL program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance Measure</td>
<td>Performance Target</td>
<td>Data Sources</td>
<td>Date</td>
</tr>
<tr>
<td>---------------------</td>
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<td>--------------</td>
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</tr>
<tr>
<td><strong>Objective 1.3:</strong> The SMARTITEL teacher participants will complete 12 hours of graduate on-line and on-site coursework and a 3-day summer institute that leads to the implementation of quality, practical and research-based educational experiences for ELs.</td>
<td>GPA of 3.0 in all 12 credit hours</td>
<td>Transcripts</td>
<td>Months 12-54</td>
</tr>
<tr>
<td><strong>Project:</strong> GPA of SMARTITEL teacher mentors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project:</strong> Number of program completion certificates issued</td>
<td>Certificates issued to completers</td>
<td>Course grade sheets, transcripts</td>
<td>Months 30, 42, &amp; 54</td>
</tr>
<tr>
<td><strong>Objective 1.4:</strong> As part of their graduate coursework, SMARTITEL teachers will construct a portfolio of multimedia mentoring materials that illustrate in-depth information aligned with the foci of the program.</td>
<td>Strong alignment identified as measured by the SMARTITEL Rating Scale for ESL Mentoring Materials</td>
<td>Multimedia projects, facilitator's guide, participants' packet, and post-mentoring focus groups and questionnaires</td>
<td>Months 12-54</td>
</tr>
<tr>
<td><strong>Project:</strong> Degree to which teacher mentors' materials are aligned with TAKS, ELPS and research-based strategies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Objective 1.5:</strong> During years 3, 4 and 5 SMARTITEL teacher mentors will provide mentoring that is aligned with the project's foci described in Objective 1.1 to at least another content teacher at their home campuses.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Performance Measure</td>
<td>Performance Target</td>
<td>Data Sources</td>
<td>Date</td>
</tr>
<tr>
<td>---------------------</td>
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</tr>
<tr>
<td><strong>Project:</strong> Performance on criterion-referenced evaluation of mentees</td>
<td>75% passing rate</td>
<td>Evaluation scores</td>
<td>Months 30, 42 &amp; 54</td>
</tr>
</tbody>
</table>

**Objective 1.6:** SMARTITTEL teacher mentors in the areas of mathematics and science will earn ESL supplemental certification.

| GPRA: Percentage of in-service teacher completers who complete State certification requirements in EL instruction as a result of the program | 100% passing rate of ESL TExES supplemental certification | TExES scores | Months 30, 42 and 54 |
| GPRA: Percentage of in-service teacher completers who are providing instructional services to EL students | Percentage increased by adding 54 new content area teachers with ESL supplemental certification at the rate of 18 new teachers per year (Y3, Y5 and Y5) | District level teacher assignment data | Months 30-60 |

**Objective 2.1:** Percentage of SMARTITTEL teachers' high school students who meet graduation requirements will be at least 10% higher than those math and science teachers' who have not participated in the program.
<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Performance Target</th>
<th>Data Sources</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NPD Program:</strong> Degree of improvement in high school graduation rates and college enrollment rates for students in rural local education agencies</td>
<td>Percentage of high school students taught by SMARTTTTEL teachers who meet graduation requirements will be 10% higher than the region's average compared to EL students served by non-SMARTTTTEL teachers.</td>
<td>District level graduation rate data</td>
<td>Months 1-60</td>
</tr>
</tbody>
</table>

**Objective 3.1:** SMARTTTTEL teachers' instructional practices reflect and integrate principles of research-based effective practice such as sheltered instruction.

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Performance Target</th>
<th>Data Sources</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NPD Program:</strong> Degree of improvement of instructional practices</td>
<td>80% of teacher mentors will score at least 100 (out of a maximum of 120) in the SIOP observation protocol</td>
<td>Classroom observation of instruction in three different instances for each participant during program</td>
<td>Months 11-54</td>
</tr>
</tbody>
</table>

**Objectives 3.2/3.3:** Percent of SMARTTTTEL teacher mentors' students that meet minimum expectations on the state standardized test will be at least 10 percent points higher than the district or region average for ELs taking the same grade and subject test in a given academic year.
<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Performance Target</th>
<th>Data Sources</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project:</strong> Performance on TAKS</td>
<td>The percent of SMARTTTTEL teachers’ ELs who demonstrate a higher level of proficiency on the TAKS or STAARs will be at least 10 percent higher than the district or region average in the given academic year.</td>
<td>TAKS Scores</td>
<td>Months 1-60</td>
</tr>
</tbody>
</table>

**Objective 3.4:** Each EL served by an SMARTTTTEL teacher will perform higher than the previous year on the Test of English Language Proficiency (TELPAS) as measured either by numerical score or level of proficiency.

| Project: Performance on TELPAS | 90% of SMARTTTTEL teachers’ students will increase their grade standard score on the TELPAS by either 10% or one level of proficiency from the previous year | TELPAS Scores | Months 1-60 |
Project Narrative

Other Narrative

Attachment 1:
Title: Pages: Uploaded File: 1237-SMARTTEL Table of Contents.pdf

Attachment 2:
Title: Pages: Uploaded File: 1238-Partner_Ltrs.pdf

Attachment 3:
Title: Pages: Uploaded File: 1239-Appendix.pdf

Attachment 4:
Title: Pages: Uploaded File: 1240-References.pdf