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## APPLICATION FOR GRANTS UNDER THE

**NATIONAL PROFESSIONAL DEVELOPMENT PROGRAM**

**CFDA # 84.365Z**

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Closing Date: MAY 09, 2011

## ABSTRACT – CFDA 84.365Z 2011

**IHE: Portland State University**

**PROJECT TITLE: Futures Project**

**PRIORITIES:**

- **Invitational Priority 2**
- **Competitive Priority 2 & 3**

**CONSORTIA PARTNERS: Beaverton School District, Centennial School District, David Douglas School District, Forest Grove School District, McMinnville School District, Portland Public School District, Reynolds School District, and Woodburn School District.**

**GPRA MEASURE TARGETS:**

**Measure 1.1** The *Futures Project* will increase the percentage of pre-service program completers who are State and/or locally certified, licensed, or endorsed in EL instruction by admitting and supporting 20 candidates in the *2-year part time program*, each year of the project for a total of 80 during the grant period (Found in Goal 4, Objective 4.B.).

**Measure 1.2** The *Futures Project* will document an increase in the percentage of pre-service program completers who are placed in instructional settings serving EL students within one year of program completion by collecting follow-up data on program completers during year 3,4, and 5 of the grant period (Found in Goal 4, Objective 4.B.).

**Measure 1.3** The *Futures Project* will document an increase in the percentage of pre-service program completers who are providing instructional services to EL students 3 years after program completion, by collecting follow-up data on program completers during year 5 of the grant period (Found in Goal 4, Objective 4.B.).

**PROJECT DESCRIPTION:** The *Futures Project* aims to prepare 80 highly qualified elementary and secondary teachers, to use research-based teaching strategies and to infuse the teaching of science and the use of technology into their classroom practice to improve progress for their linguistically and culturally diverse students. The *Futures Project* operating within the Bilingual Teacher Pathway Program at Portland State University utilizes a career ladder model to recruit diverse, bilingual paraprofessionals who are employed by school districts that are in active partnerships with the Graduate School of Education.

More than 65 percent of grant funds will be used to support candidates to complete coursework that will lead to an Oregon initial teaching license and a bilingual/ESOL endorsement. The program is set up to include a graduate and an undergraduate pathway, allowing for flexibility in admissions of bilingual paraprofessionals. The *Futures Project* will build upon the Bilingual Teacher Pathway program, which is aligned with coursework in the PSU Graduate Teacher Education Program (GTEP) and the Bilingual/ESOL Endorsement but will include additional coursework with a specific focus on science and technology competencies. All coursework and field experience activities are aligned with Oregon Teachers Standards and Practices Commission, INTASC Principles, and TESOL Standards.

The *Futures Project* will expand the Bilingual Teacher Pathway program, which is an established, high quality part-time teacher preparation program leading participants to be fully

licensed and obtain the bilingual/ESOL endorsement at the end of eight terms. The distinction of the *Futures Project* is in the emphasis on and expectations of teacher candidates acquiring competencies in science, technology, engineering, and mathematics (STEM) content areas. This focus will be accomplished through a variety of ways. First, the elementary teacher candidates will be required to take two additional science education courses and secondary candidates who wish to teach a STEM content area will be provided an individualized plan of study to ensure strong competencies and qualifications to teach a STEM content area. Secondly, STEM content will be integrated into three required program courses, which all teacher candidates complete. Both elementary and secondary teacher candidates will also be required research-based professional development workshops each term, focused on teaching, managing or assessing a STEM topic with English learners. At the end of their program, the *Futures Project* teacher candidates will be able to demonstrate their application of knowledge and pedagogy skills for teaching English learners in a STEM content area through two Teacher Work Samples and through a culminating project. *Future Project* teacher candidates will work in collaboration with their district to plan and implement a community outreach project that will have a STEM focus. These culminating projects could be a family math night activity, a student/parent careers in science and technology fair, or a Saturday science academy for a particular grade level and will also be an opportunity for teacher candidates to demonstrate their professionalism, collaboration, and their bilingual/bicultural skills and knowledge of the school community.

The *Futures Project* has a strong collaboration component built into its' structure. First there is collaboration with eight local educational agencies (LEAs) who are committed to the use of research-based practices, effective instruction to meet the needs of English language learners (ELLs), and to the infusion of a science and technology into the English language development curriculum. The LEAs are located in urban, suburban, and rural communities in Oregon, that are within a fifty-mile radius of Portland State University. School districts to the west include: Forest Grove and Beaverton. Eastern school districts include: David Douglas, Reynolds, and Centennial. South of the university the school districts are: Woodburn and McMinnville. The university is situated within the boundaries of the Portland Public School District, which is the largest school district in the state of Oregon. The *Futures Project* will collaborate with these LEAs in recruiting applicants, to provide effective field placement and student teaching experiences; to provide professional development STEM workshop opportunities for inservice teachers. In addition, LEAs will collaborate with teacher candidates on their culminating outreach project to their school's linguistically and culturally diverse students, parents/families, and community.

Secondly, the *Futures Project* will collaborate with STEM content and pedagogy experts at Portland State University and with local community industry experts. This collaboration will primarily take the form of an Advisory Group, which will provide advice, ideas, and expertise during the planning of STEM professional development workshops for the *Futures Project* preservice teachers and their cooperating inservice teachers. Within the Graduate School of Education, there are five faculty members with expertise in science, math, and technology that will serve in the Advisory Group. The director of the Center for Science Education at Portland State University has also agreed serve on the Advisory Group. Finally, a representative from a community industry will serve on the Advisory Group. Intel Corporation promotes math and science education and encourages innovation with technology through outreach programs. Collaborating with various experts in STEM will ensure the *Futures Project* successfully

combines the content and pedagogy of STEM with best practices for working with English learners in the preparation of bilingual teachers for today's classroom.

The *Futures Project* specifically will: (1) recruit, admit, and retain 20 bilingual/bicultural paraprofessionals a year for each of five years in order to increase the number of bilingual elementary and secondary teachers with a bilingual/ESOL endorsement through a career ladder teacher preparation program for paraprofessionals; (2) infuse a more in-depth preparation in science and technology into the Bilingual Teacher Pathway program, leading to specific competencies; (3) establish and/or strengthen partnerships with experts in science/ technology education at Portland State University, with the local community of science and technology industry experts, and with local educational agencies (LEAs) serving high percentage of English language learners; (4) evaluate, monitor, and report on teacher candidates' progress in acquiring competencies in teaching science and using technology with English learners in their classrooms.

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**(a) Quality of the project design**

**(a)(1) The goals, objectives, and outcomes to be achieved are clearly specified and measurable:** The four goals of the *Futures Project*, building upon the Bilingual Teacher Pathway (BTP) program are: 1) to recruit, admit, and retain 20 bilingual/bicultural paraprofessionals a year for each of four years (a total of 80 during the grant period) in order to increase the number of bilingual elementary and secondary teachers with a ESOL/ bilingual endorsement through a career ladder teacher preparation program for paraprofessionals; 2) to build upon the Bilingual Teacher Pathway program with the infusion of a more in-depth preparation in science and technology leading to specific competencies; and 3) to establish and/or strengthen partnerships with experts in science/ technology education at Portland State University, with the local community of science and technology industry experts, and with local educational agencies (LEAs) serving high percentage of English learners; and 4) to evaluate, monitor, and report on teacher candidates' progress in acquiring competencies in teaching science and using technology with English learners in their classrooms. The *Futures Project* will result in an improved Bilingual Teacher Pathway program that will prepare future bilingual teachers to improve the educational outcomes for English learners in our schools. The *Futures Project* will strengthen STEM content and pedagogy in the established and highly regarded part-time teacher preparation program. A review of up-to-date knowledge, research, and practice in science education with ELL students is in section 2 of the project design.

**The Bilingual Teacher Preparation (BTP) Program:** The BTP program has been operating alongside the PSU's Graduate Teacher Preparation Program (GTEP) for the past twelve years, as a route for licensure and degree completion. Specifically, the BTP program is a career-ladder, part-time program for working bilingual paraprofessionals employed by

partnership school districts. Elementary and secondary teacher candidates complete 43-44 credits of teacher education courses and 22 credits of ESOL endorsement courses. The quality, teacher preparation program has prepared approximately 250 bilingual teachers now working primarily in Portland, Oregon Metropolitan and South West Washington areas. All of these BTP graduates hold their ESOL endorsement and are working with English learners.

**The *Futures Project* building upon the BTP Program:** Based on input from district partner liaisons, the BTP program is ready to evolve and expand to meet the needs of today’s K-12 population in an area of greatest need: STEM Education. The *Futures Project* will enable the BTP program to infuse science and technology competencies into the program. The *Futures Project* is an effort that envisions the needs of tomorrow’s citizenry. The future will need individuals who are bilingual, competent in using new and emerging technology, and who are interested in and understand the important role of math and science in the world around them. Critical knowledge of math and science are not only essential but also necessary for teachers, who are primarily responsible for preparing future citizenry to use this knowledge for making decisions pertaining to sustaining democracy. Currently, elementary preservice teachers in the program are required to take six courses in STEM content areas totaling 16 credits. The *Futures Project* will increase this to 24 credits as noted in Table 1 below.

Table 1 Infusion of STEM	Science		Math		Technology		Total Credits
	Classes	Credits	Classes	Credits	Classes	Credits	
BTP Program	1	3	4	12	1	1	16
<i>Futures Project</i>	3	9	4	12	1	3	24

The *Futures Project* will deepen the teacher preparation program by requiring elementary preservice teachers to take two additional science courses (6 credits), which will be developed

during the first year of the grant and offered in years 2-5 of the grant. These additional science courses will be added to the required science-methods course that currently exists in the program. In addition, the program has four required math education courses (3 undergraduate pre-requisites and 1 math methods course), which are highly regarded in the state of Oregon. The *Futures Project* program will also increase credits in CI 4/513 Instruction & Technology from one to three. The premise for increasing technology credits in the teacher preparation program is founded in the belief that teachers need to experience and approach technologies as tools of innovation and imagination in their future classrooms. With such rapidly emerging technologies (such as iPads and Smart Boards), teachers can no longer sit back and model indifference toward the skills children will need in the future. Teacher candidates pursuing a secondary level teaching license in one of the STEM areas will be advised and provided an individualized plan to ensure coursework for developing strong competencies in their STEM content area and will also benefit from an increase of credits in CI 4/513, Instruction and Technology. All participants (elementary and secondary) will be required to attend a professional development workshops provided each term in collaboration with STEM industry and educators in the Advisory Group, focused on STEM topics and research-based instructional strategies to meet the needs of English learners.

The following project design details the relationship between the goals, objectives, activities, and outcomes. Dividing this section into goals and objectives is necessary to present a clear vision of the intent of the proposed program. However, it is equally important to understand the interconnected and overlapping nature of the goals, objectives, and outcomes. In particular, goal #2 and #3 list similar activities and outcomes. However, goal #2 emphasizes research-based pedagogy and competencies, while goal #3 highlights the collaboration components in the *Futures Project*. The outcomes will be evaluated by analysis of documentation, including

interviews, surveys, course completion, observations, and Teacher Work Samples as explained in detail in the Evaluation Section on page ?.

**Goal 1:** Recruit, admit, and retain 20 bilingual/bicultural paraprofessionals a year for each of four years (a total of 80 during the grant period) in order to increase the number of bilingual elementary and secondary teachers with a bilingual/ESOL endorsement through a career ladder teacher preparation program for paraprofessionals.

**Objective 1.A. The *Futures Project*, will recruit, admit, and retain 20 bilingual/bicultural paraprofessionals a year for a total of 80 in five years to increase the number of bilingual elementary and secondary teachers with an ESL/Bilingual endorsement through a career-ladder teacher preparation program.**

PSU's Bilingual Teacher Pathway (BTP) program has successfully recruited bilingual/bicultural paraprofessionals from established partnerships with LEAs for the past twelve years. This will continue with the *Futures Project* (See Table 2 on Student Participation Projection). Being a part-time program that takes two years to complete, the project will follow four cohorts of 20 during the grant period. In year 1 of the project, a cohort of 15 teacher candidates from the former BTP program will be in their second year of study as shown in Table 2. In year 5, a new *Futures/BTP* cohort will be admitted into their first year, as the project's fourth cohort completes their second year. From past experience, applicants are often non-native English speakers in need of specific support systems to help navigate an educational system and language norms different from their own. It is important to note that while participants are often successful in their coursework, field experiences, and all university requirements for a teaching license, they are often unable to pass exams mandated by the Oregon Teachers Standards and Practices Commission. Thus, as part of the retention process the *Futures Project* program will be

culturally responsive to participant’s needs through individualized advising and will provide tutoring and test-taking support for students who may need to overcome testing challenges to obtain their teachers’ license.

<b>Table 2 Student Participation Projection 2011-2012</b>					
	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
First	<i>Futures</i>	<i>Futures</i>	<i>Futures</i>	<i>Futures</i>	New Futures
Year of	<i>Project A</i>	<i>Project B</i>	<i>Project C</i>	<i>Project D</i>	BTP Cohort
Program	<i>20 Students</i>	<i>20 Students</i>	<i>20 Students</i>	<i>20 Students</i>	<b>(20 Students)</b>
Second	Past BTP	<i>Futures</i>	<i>Futures</i>	<i>Futures</i>	<i>Futures</i>
Year of	Cohort 13	<i>Project A</i>	<i>Project B</i>	<i>Project C</i>	<i>Project D</i>
Program	<b>(15 Students)</b>	<i>20 Students</i>	<i>20 Students</i>	<i>20 Students</i>	<i>20 Students</i>

**Activities 1.A.** • Recruit bilingual/bicultural instructional assistants annually from partner LEAs; • Provide individualized advising and support to program participants, including tutoring or test-taking assistance; • Meet and communicate with partner LEA liaisons at the Consortium meetings three times a year, for the purposes of recruitment, retention, placement for student teaching I and II, and to respond to emerging needs and to continually improve the program; • Retain 85% of the 80 teacher candidates to licensure completion. **Outcome 1.A.** As a result of an effective recruitment, retention, and quality training, twenty students will be admitted and supported each year for a total of 80 students over five years.

**Goal 2:** The *Futures Project* will infuse a more in-depth preparation in science and technology into the Bilingual Teacher Pathway program, leading to specific competencies.

**Objective 2.A. Infuse a science and technology focus into the BTP program through two additional science elementary education courses and integrating STEM content & pedagogy into three required courses.** Upon reviewing the program, it was noted that there was only one 3-credit “methods” course for the teaching of health and science. Thus, there was a strong need to augment elementary teachers’ preparation to teach science. Upon discussing this concern with the Associate Dean of the Graduate School of Education, Dr. Liza Finkel, it was discovered that there was a plan in process to change the situation with the creation of two new courses, which would then become part of PSU’s course offerings. The planning for two new courses will occur during year 1 and will be implemented during years 2-5 of the grant. The integration of STEM content into three required courses in the Bilingual Teacher Pathway (BTP) program will occur during the first year of the grant period, while feedback and evaluations will guide and improve the integration process during year 3-5. As noted on Table 1, Technology is being expanded to include more credit hours in the BTP program, but in addition to this, the integration of technology will occur through the hands-on use of emerging technology (such as iPads and Smart Boards) in three BTP required courses. Teacher candidates who wish to pursue a secondary teaching license in one of the STEM content areas will be accommodated with an individualized plan to ensure strong competencies in their content area and will benefit from the integration of STEM in the three BTP required courses (See Appendix A for a detailed view of the BTP program and the *Futures Project* infusion of a STEM focus).

**Activities 2.A.** • Collaborate with the Associate Dean of the Graduate School of Education, who is a science educator, in the development of two science education courses for an additional 6 credits, which will be required for the *Futures Project* elementary teacher candidates, and become part of the university’s course offerings; • Keep records of courses

designed; • Submit designed courses through governance structure for approval; • Include new designed course in the PSU catalogue. • Keep records of STEM content integration into three required courses (CI 412/512 – Teaching & Learning; CI 435/535 – Planning, Assessment & Curriculum; and CI 438/538 – Language & Literacy Development of Diverse); • Accommodate participants who desire to become secondary teachers in one of the STEM content areas; • Provide teacher preparation courses (43-44 credits) and ESOL/bilingual Endorsement courses (22 credits) to participants. **Outcome 2.A.** – By the end of their program, *Futures Project* elementary teacher candidates will have completed their high quality teacher preparation courses with an additional two science education courses, which will lead to licensure and highly qualified status for elementary level teaching. Secondary teacher candidates will have completed their high quality teacher preparation courses with a set of courses in one of the STEM areas that will lead to licensure and highly qualified status in that content area. All participants will have STEM content integrated in three required Bilingual Teacher Pathway program courses.

**Objective 2.B.** All (100%) *Futures Project* teacher candidates will attend STEM professional development workshops once a term, beginning in year 2, for a total of four each year. As with any teacher preparation program, it is often difficult to add additional coursework or hours to an approved program without extending the length. The creation of once-a-term, professional development workshops is one way to address this challenge. Through a STEM Advisory Group, the *Futures Project* will collaborate with experts at PSU and with Intel Corporation, a local expert in the STEM industry, to plan professional development workshops that integrate STEM and working with English learners in classrooms today. The beginning list of STEM Advisory Group members are listed in Table 3.

Table 3 – STEM Advisory Group			
Individual	Position	Organization	Expertise
Dr. W. Becker	Director, Center of Science Ed.	PSU	Science Educator
Dr. David Bullock	Technology Mgr., GSE Director Metro. Inst. Support Lab	PSU	Technology for Teaching and Learning
Dr. Christine Chaille	Chair, C & I, GSE Faculty, Early Childhood Ed.	PSU	Science with Young Children Educator
Ms. Abrey Clark	Manager, NW US Education	Intel Corp.	Technology in STEM Education
Dr. Esperanza De La Vega	Faculty, C & I, GSE Coordinator BTP Program & <i>Futures Project Program Director</i>	PSU	Bilingual/ESOL Multicultural Educator
Dr. Liza Finkel	Associate Dean of Academic Affairs, GSE	PSU	Science Educator
Dr. Swapna Mukhopadhyay	Faculty, C & I, GSE	PSU	Multicultural and Math Educator
Dr. Nicole Rigelman	Faculty, C & I, GSE, Co-PI for Connect to Science & Math PD	PSU	Math Educator

**Activities 2.B.** • Create a STEM Advisory Group of experts to plan professional development workshops that integrate STEM with methods and strategies for working with English learners for *Futures Project* preservice teachers and partner school district inservice teachers; • Require all participants to attend professional development workshops each term (4

per year) to enhance science and technology competencies while working with English learners in today's classrooms. **Outcome 2.B.** By the end of their program, all *Futures Project* teacher candidates will have attended STEM focused workshops each term to enhance knowledge and pedagogy skills in teaching science to and using technology with English learners.

**Goal #3:** Establish and/or strengthen partnerships with experts in science/ technology education at PSU, with the local community of science and technology industry experts, and with local educational agencies (LEAs) serving high percentage of English learners.

**Objective 3.A. Establish 100% of the collaboration with Science/Technology experts and entities both inside and outside of the University needed to infuse high quality STEM into the Bilingual Teacher Pathway Program/*Futures Project*.** The *Futures Project* has a strong collaboration component. One of the areas of collaboration is with STEM content and pedagogy experts at PSU and with local community industry experts. This collaboration will primarily take the form of an Advisory Group that provides advice, ideas, and expertise during the planning of STEM professional development workshops for the *Futures Project* preservice teachers and their cooperating inservice teachers. (See Objective 2 B, Table 3 for a list of the Advisory Group membership). The workshops will be developed with consideration of how to best prepare the *Futures Project* preservice teachers to use technology, to teach science, and to meet the needs of their English learner student population. However, these professional development opportunities will also be open for the cooperating mentor teachers to attend, thus collaboration with LEAs will be important for coordination of inservice teachers' attendance.

**Activity 3.A.** • Create a STEM Advisory Group to work with experts on planning and implementing STEM professional development workshops with a focus on methods and strategies for working with English learners for *Futures Project* preservice teachers and partner

school district inservice teachers; • Convene meetings with STEM Advisory Group at least twice a year to obtain advice on STEM topics, new resources, and recommendations for professional development workshop/seminar delivery during year 1-5 • Offer professional development workshops every term, beginning on year 2 (Topic examples: How to use emerging technology such as iPads or Smart-Boards in the classroom as a vehicle to promote the science inquiry process; Promoting English language development through the content area of science).

**Outcome 3.A.** Each term, beginning in year 2 of the grant period, *Futures Project* participants will attend a STEM professional development workshop/seminar and will invite their cooperating teachers from partner LEAs.

**Objective 3.B. Collaborate with existing LEA partnerships to arrange 100% of needed field placements and to offer STEM professional development workshop opportunities to inservice teachers in their district.** One of the strengths of the Bilingual Teacher Pathway Program has been the strong relationship that has been created and nurtured with school district partnerships. Because the model has been and continues to be a career ladder program, the *Futures Project* will depend on partner school district liaisons to arrange field placements for their employees. As we expand and include a focused infusion of STEM content area into the program, we will reciprocate in new ways. We will invite cooperating teachers and other interested partner school inservice teachers to participate in the STEM and English learners professional development workshops. This will expand the number of teachers receiving professional development in STEM, in schools with high percentages of English learners.

**Activity 3.B.** • Meet and communicate with partnership LEA liaisons at the Consortium meetings for the purposes of placements for teacher candidates and to respond to emerging needs and to continually improve the program at least three times a year; • Arrange field experience

placements for student teaching I and II with LEA partnership liaisons. • Annually, identify cooperating teachers and other inservice teachers to participate in STEM professional development workshops; • Invite LEA partnership inservice teachers to STEM professional development workshops four times a year (once each term). **Outcome 3.B.** Through partner school district liaison, 100% of student teaching placements will be made with a cooperating teacher who has a classroom with some English language learner students. Starting year 2 of the grant, every term, partner school district cooperating teachers and other inservice teachers will be invited to professional development workshops, which will focus on how to use technology as a tool for teaching science and how to meet the needs of their ELL student population through the teaching of the STEM content area.

**Objective 3.C. Collaborate with LEA partnerships to support teacher candidates as they plan and implement a culminating STEM project in their district.**

The end-of-program marks a distinct opportunity for teacher candidates to demonstrate the competencies they have acquired in their program. The *Futures Project* teacher candidates will work with their district to plan and implement a STEM outreach project with students, parents/families, and community members. This will accomplish several things. It will allow us to evaluate the application of the candidates' knowledge and skills in STEM, in working with English learners, and being a bilingual/bicultural professional as they reach out to their linguistically and culturally diverse community.

**Activity 3.C.** • Collaborate with district partners to support *Futures Project* student teachers to plan and implement a culminating STEM project with their linguistically and culturally diverse families and school community. Examples might include a Family Math night, a Saturday Science Academy for 3<sup>rd</sup> graders, or a Parent/Family Outreach effort on the Careers in

Science and Technology Event; • Collect evaluation data on participation feedback from students and/or parents/families attending the outreach STEM project. **Outcome 3.C.** At the end of their program, *Futures Project* teacher candidates will plan and implement a STEM Outreach project with their linguistically and culturally diverse families and school community.

**Goal #4:** To evaluate, monitor, and report on teacher candidates' progress toward acquiring competencies in teaching science and in using technologies with English learners in their classrooms.

**Objective 4.A.** Upon completion of Student Teaching I and II, 100% of *Futures Project* teacher candidates will produce Teacher Work Samples that demonstrate competency in teaching a STEM content area to and using technology with students who are English learners. Teacher Work Samples are required by Oregon Teachers Standards and Practices Commission (TSPC) to demonstrate teacher candidates' knowledge, skills, and dispositions of competent teachers. The Work Sample has become a way for teacher preparation programs to document the participants' outcomes with a detailed rubric scoring guide. However, it has also become a tool for beginning teachers to use as they reflect upon their own teaching and their impact on student learning. In other words, it is a tool and reflective exercise in gathering data, in order to make decisions about what their students need next. This formative and summative assessment process enables our teacher candidates to practice data-based decision making. The *Futures Project* will require the teacher candidates to focus one of their Teacher Work Samples on a STEM topic and one of their Teacher Work Samples will need to demonstrate how they are meeting the needs of their English learner students. Rubrics will be used to evaluate the Teacher Work Samples and data will be collected in the TK-20 electronic database being used by the Graduate School of Education at PSU.

**Activities 4.A.** • Require *Futures Project* teacher candidates to produce two Teacher Work Samples; • Require teacher candidates to focus one (or both) of their Teacher Work Samples on a STEM topic and to demonstrate how they are meeting the needs of their ELL student population; • Incorporate STEM competencies into Teacher Work Sample rubric • Use rubrics to evaluate the Teacher Work Samples; • Collect Teacher Work Sample evaluations and field experience summative evaluations in TK-20. **Outcome 4.A.** – By the end of their program, *Futures Project* elementary teacher candidates will have demonstrated competency in using technology, teaching one of the STEM content areas, and meeting the needs of English learners in their classroom, by scoring a level 3 (proficient) or higher on each criteria on their Teacher Work Samples.

**Objective 4.B.** Upon securing a teaching position, *Futures Project* program completers will reflect upon their preparation to teach STEM content areas, use technologies with their English learners, and their use of data-based decision making as a classroom practice one year, three, and five years after completing the program. *Future Project* teacher candidates who complete their program, obtain a teaching license, and a Bilingual/ESOL Endorsement offer us a unique opportunity to follow them into their first years of teaching to investigate several educational questions. The first question would explore whether or not they felt prepared for the challenges they faced in working with English learners in classrooms today. A second question would explore their perceptions of efficacy regarding teaching STEM content to English learners. And finally, because *Futures Project* teacher candidates have to produce two Teacher Work Samples, a third question would be raised about how they had continued to use data-based decision making in their classroom practice In addition to the research component of this project, this objective allows the program to collect data on the

Government Performance and Results Act (GPRA) performance measures. Specifically, the *Futures Project* will collect data on Measure 1.1 – the percentage of preservice program completers who are certified, licensed, or endorsed in EL instruction; Measure 1.2 - the percentage of preservice program completers who are placed in instructional settings serving EL students within one year of program completion; and Measure 1.3 – the percentage of preservice program completers who are providing instructional services to EL students three years after program completion.

**Activities 4.B.** • Submit an IRB application and updated requests as appropriate;

- Request graduating *Futures Project*/Bilingual Teacher Pathway teacher candidates to commit to staying in contact with Project Director and to help the program gather follow-up data •

Maintain an alumni data base of program completers for follow-up communication; • Contact beginning teachers 1, 3, and 5 years after program completion to collect data; • Collect GPRA data from program completers • Collect data in the form of surveys, interviews and/or focus group; • Analyze data for themes and findings, which will enable the Project Director and Advisory Group to strengthen the program; • Share findings with Consortium members (LEAs partners); with the Office of English Language Acquisition through annual and final performance reports; and with interested educators through publications, and professional conferences.

**Outcome 4.B.** The program will be able to obtain data from program completers for research, improvement, and reporting purposes.

**(a)(2) The design of the *Futures Project* reflects up-to-date knowledge from research and effective practice.** The *Futures Project* is aligned with Teacher Standards and Practices Commission’s teacher licensure and ESL/Bilingual competencies, Oregon’s academic standards (including English Language Development) and state benchmarks. The Bilingual Teacher

Pathway (BTP) program utilizes professional standards as identified by the Interstate Teacher Assessment and Support Consortium (InTASC) and by Teachers of English to Speakers of Other Languages (TESOL) to guide their teacher preparation program outcomes. The *Futures Project*, building upon the BTP program, will incorporate recent research recommendations that include a greater emphasis on the integration of STEM content pedagogy for English learners (Amaral, Garrison, and Klentschy, 2002; Lee et al., 2005, 2008; Thomas and Collier, 2002). Research about the integration of STEM content, such as math and science, into classroom practices for ELs points to the need to recognize and build upon EL students' "funds of knowledge" as a foundation for learning scientific ideas and practices (González, Moll, & Amanti, 2005; Moll, 1992; Rodriguez and Berryman, 2002). As a guiding principle for culturally responsive teaching (Delpit, 1999; Gay, 2000; Ladson-Billings, 1994; Nieto, 2011), it is critical for teachers to understand who their students are, what they bring into the classroom, and to guide their knowledge construction through innovative teaching practices. As one of the few programs in the State of Oregon whose teacher candidates obtain their teaching license and their ESOL/Bilingual Endorsement at the same time, the BTP program is committed to ensure each teacher candidate is equipped with the knowledge, skills, and dispositions to work with linguistically and culturally diverse students, including a solid foundation in culturally responsive pedagogy.

Students in the program are required to critically evaluate recent research work in EL education that include, for example, works by J. Cummins (1989, 1994, 2002, 2005), E. Garcia, (2008); S. Krashen, (1994, 2005), B. McLaughlin, (1990), L. Wong-Fillmore, (1991, 2003), among others. In addition, our program incorporates latest research in second language teaching as proposed by F. Genesee (1994), L. Bartolomé (2000) and R. Mitchell and L. Myles (2004). The program also embraces the overarching consensus among educators, supported by available

research, that the fundamental difficulty with STEM education among EL students is based in issues with reading and language. Likewise, the widespread perception of scientific knowledge as language-neutral and culture-free may well be a factor in the limited interest to date among science educators on how ELs develop scientific understanding (Luykx, Lee, and Edwards, 2007). In addition, research by Cummins and Sayers (1995) and Warschauer (2003) indicates that new technologies represent a potent tool for helping language minority students develop the kinds of reading, writing, and cognitive skills that contribute to academic literacy. In addition to technology's role in enhancing English language acquisition and as a means to provide EL students with greater access to STEM concepts, the use of computers help students study in greater depth exposes them to more complex vocabulary and complicated concepts (Gee, 2005)

Further, studies indicate professional development was the difference between teachers using technology to emphasize critical-thinking and problem-solving skills versus skill and drill (Wenglinsky, 1998; Brannigan, 2002). The standards-based emphasis on word problems to teach and assess mathematical knowledge underscores the need for language and reading support and the use of technology to enhance both English language acquisition and access to mathematical concepts. In addition, EL students need to access vocabulary in STEM content areas through instructional strategies that simultaneously promote content learning and English proficiency for English learners (Amaral, et al, 2002; Genesee and Christian, 2008; Lee et al, 2005; Thomas and Collier, 2002). Incorporating research-based instructional strategies enable English learners to access prior knowledge, learn science and math content, and communicate ideas by using multiple modes of representation. The *Futures Project* prepares teachers to embrace academically rigorous standards while scaffolding instruction for students' development of academic language in the context of learning science and math. Improving English skills should

provide a medium for understanding STEM content (Fathman and Crowther, 2006; Lee and Fradd, 1998; Rosebery, Warren, and Conant, 1992).

Professional development programs, such as the STEM workshops proposed by the *Futures Project*, provide an opportunity to meet regularly with fellow teachers to share ideas, experiences, tasks, and materials that are effective in teaching science and math, and using technology, with English learners (Rosebery and Warren, 2008). The *Futures Project* at Portland State University works closely with the Oregon State mandated educational reform that incorporates the latest research development in EL and STEM teacher preparation.

**(b) Quality of project personnel**

The focus of the *Futures Project* and the diverse urban context in which it is situated require inclusiveness at every level of project implementation. The student participants in the project represent bilingual/bicultural paraprofessionals from various languages and cultures. For example, of the 30 participants currently enrolled, two are native Chinese speakers, one is a native Japanese speaker, one is a Bhutanese speaker, four are native Russian speakers, and the remaining 22 are Spanish speakers (14 from Hispanic background). **PSU has a recruitment plan that encourages employment applications from persons who are members of groups that have traditionally been underrepresented (see GEPA attachment for further detail).** The PI is a woman and a representative of an under-represented group (Hispanic). The proposed STEM Graduate Research Assistant (GRA) has not been hired, but recruitment efforts will emphasize the need to be bilingual/bicultural (Spanish/English) and have experience working as a teacher with the linguistically and culturally diverse students and communities. Additionally, the Project Evaluator is a representative of an under-represented group (Hispanic).

**(b)(1) The qualifications, relevant training, and experience of the project director.**

The Project Director for the *Futures Project* is highly qualified to direct, administer and implement the projects' objectives. Dr. Esperanza De La Vega (Ph.D. University of California, Berkeley) holds the position of Assistant Professor of Curriculum and Instruction and Coordinator of the Bilingual Teacher Pathway program at PSU. She has worked in the field of Bilingual/ESOL education for more than 23 years as an elementary teacher and as a university instructor in teacher preparation and Bilingual/ESL Endorsement courses in Oregon and abroad. Dr. De La Vega has had experience working on Title VII and Title III grant projects in the past 15 years. Her area of research includes exploring the intersections of language, literacy, and culture in the educational process, and specifically the perceptions of Mexicana/Latina mothers about being involved or engaged in the education of their children. Dr. De La Vega has published work about the need to change the way we view parent involvement with Latinos in today's society and how educational reform opportunities often begin with one corner, one small step, and by changing lives one student at a time. She has presented at conferences dealing with quality education for Latino students.

**(b)(2) The qualifications, relevant training, and experience of key personnel.** *Futures Project Program Assistant*, Ms. Lynda Pullen (BA: Spanish Language, University of Oregon) currently advises students and supports the activities of the various projects at PSU. Her position supports the Bilingual Teacher Pathway (BTP) Program and she has had more than ten years of experience supporting PSU's grant projects, including the BTP program. Ms. Pullen has a TESOL certificate from PSU and has had more than 15 years of experience working at all levels (elementary through adult and higher education) with English language learners. As a result of her experiences, she has a deep understanding of issues facing bilingual/bicultural university

students who need assistance navigating a university system different from their own home country. Because of her outstanding service to the BTP students and other diverse students at PSU, Ms. Pullen was honored with the President's Diversity Award in 2010. One of the strengths of Ms. Pullen's experiences and background are more than ten years of establishing and maintaining relationships with liaisons from our partner LEAs and among the various key gatekeepers in PSU's administrative offices.

***Futures Project Graduate Research Assistant:*** The Graduate Research Assistant (GRA) position will be hired fall 2011 and will bring a bilingual/bicultural and STEM focus to the project's various tasks. The GRA will be helping with data collection through school site visits and will help to coordinate the STEM professional development workshops. The description and advertising for the GRA position will highlight the preference for the graduate student applicant to be bilingual/bicultural (preferably English/Spanish), to have experience teaching a STEM content area, and a history of working with linguistically and culturally diverse students and parent/families.

***Futures Project Program Evaluator:*** Dr. Macedo received an Ed.D. in Applied Psycholinguistics and Second Language Teaching and a Ph.D. in Language Behavior from Boston University. He holds a M.A. in Spanish Literature from New York University. Professionally he has been teaching at the university level as a linguist and bilingual educator for over twenty-five years. He has been honored in the field, including the Distinguished Professorship in Liberal Arts and Education and the 1999 University President's Awards. Dr. Macedo has published extensively and is the author of *Issues in Portuguese Bilingual Education*, for which he is the contributing editor. He co-authored with Paulo Freire the book, *Literacy: Reading the Word and the World*. His other publications include *Literacy of Power: What*

Americans Are Not Allowed to Know; The Hegemony of English (co-authored with P. Gounari). Dr. Macedo has also presented numerous papers dealing with linguistics and bilingual education in major national and international conferences. With his teaching experience and his scholarship in the field, Dr. Macedo has directed the Bilingual/ESL Studies Program at UMass Boston since 1983. He has worked also as an evaluator for many Title VII and Title III projects at both K-12 and university levels for over 25 years.

**(c) Quality of the management plan**

**(c)(1) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.** Project Director, Dr. De La Vega will be responsible for the management of the *Futures Project* and will devote .30 FTE of her time to the project. Support for management of the Project comes from the Project Assistant, Ms. Pullen, who has been allocated .25 FTE of her time to the project. Dr. Macedo will be an external evaluator for the project and his responsibilities are outlined in the evaluation section of this proposal. The final key person assigned to this project is the Graduate Research Assistant, whose position will lend support at a half time basis. In addition support comes from the PSU Office of Research and Sponsored Projects, which supplies technical assistance to externally funded projects, and from the PSU Office of Research Accounting, with responsibilities for financial management of externally funded projects at PSU.

The following management plan (Table 4) outlines objectives that provide milestones for achieving project tasks and outcomes on time and within budget, and includes clearly defined responsibilities and timelines for accomplishing milestones across the four quarters of each year of the *Futures Project*.

**Table 4. Management Plan**

**Quarters: 1=Fall** Sept. 1 to Dec.31; **2=Winter** Jan. 1 to March 31; **3=Spring** April 1 to June 30; **4=Summer** July 1 to Aug. 31

	Year 1				Year 2				Year 3				Year 4				Year 5			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Goal 1:</b> Recruit, admit, and retain 20 bilingual/bicultural paraprofessionals a year for each of four years in order to increase the number of bilingual elementary and secondary teachers with a bilingual/ESOL endorsement through a career-ladder teacher preparation program for paraprofessionals.																				
<b>Obj. 1.A: The Futures Project, will recruit, admit, and retain 20 bilingual/bicultural paraprofessionals a year</b>																				
<b>Responsible:</b> Project Director, Assistant, Partner LEA liaisons																				
<b>Activities:</b>																				
Recruit bilingual instructional assistants from partner LEAs																				
Provide individualized advising and support to program participants, including tutoring or test-taking assistance.																				
Meet and communicate with partner LEA liaisons at Consortium meetings three times a year, for recruitment, retention, placement for student teaching, to respond to emerging needs and to continually improve the program.																				
Retain 85% of the 80 teacher candidates to licensure completion.																				

<p><b>Goal 2.</b> The <i>Futures Project</i> will infuse a more in-depth preparation in science and technology into the Bilingual Teacher Pathway program, leading to specific competencies.</p> <p><b>Obj. 2.A.</b> Infuse a science and technology focus into the BTP program through two additional science elementary education courses and integrating STEM content into three required courses.</p>																				
	Year 1				Year 2				Year 3				Year 4				Year 5			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Responsible:</b> Project Director, Assistant, GSE Associate Dean																				
<b>Activities:</b>																				
Collaborate with the Associate Dean of the GSE, to develop two required science education courses for the <i>Futures Project</i> /Bilingual Teacher Pathway elementary teacher candidates;																				
Keep records of courses designed;																				
Submit designed courses through governance structure for approval;																				
Include new designed course in the catalogue;																				
Keep records of integrating STEM content into three required courses (CI 412/512; CI 435/535; and CI 438/538);																				
Accommodate participants who desire to become secondary																				



<p><b>Goal #3:</b> Establish and/or strengthen partnerships with experts in science/ technology education at PSU, with the local community of science and technology industry experts, and with local educational agencies (LEAs) serving high percentage of English learners.</p>														
<p><b>Obj. 3.A. Establish 100% of the collaboration with Science/Technology experts and entities both inside and outside of the University needed to infuse high quality STEM into the Bilingual Teacher Pathway Program/Futures Project.</b></p>														
<b>Responsible:</b> Project Director, STEM Advisory Group, GRA			Year 1		Year 2		Year 3		Year 4		Year 5			
<b>Activities:</b>			1	2	3	4	1	2	3	4	1	2	3	4
<p>Create a STEM Advisory Group of experts to plan STEM professional development workshops with a focus on methods and strategies for working with English learners for <i>Futures Project</i> preservice teachers and partner school district inservice teachers;</p> <p>Convene STEM Advisory Group meetings at least twice a year;</p> <p>Offer Professional Development workshops every term (year 2 +).</p>														
<p><b>Obj. 3.B.</b> Collaborate with existing LEA partnerships to arrange 100% of needed field placements and to offer STEM professional development workshop opportunities to inservice teachers in their district.</p>														
<b>Responsible:</b> Project Director, Assistant, STEM Advisory Group, GRA, Partner LEA liaisons			Year 1		Year 2		Year 3		Year 4		Year 5			

Activities:	Quarters				Year 1				Year 2				Year 3				Year 4				Year 5											
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Meet and communicate with Partner LEA liaisons at the Consortium meetings at least three times a year;																																
Arrange field experience placements for Student Tchng I and II.																																
Identify cooperating teachers and other inservice teachers to participate in STEM professional development workshops annually;																																
Invite LEA partnership inservice teachers to STEM professional development workshops four times a year (once each term).																																
<b>Obj. 3.C.</b> Collaborate with LEA partners to support tchr candidates as they plan & implement a culminating STEM proj in district.																																
<b>Responsible:</b> Project Director, GRA, Partner LEA liaison																																
<b>Activities:</b>	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Collaborate with district partners to support <i>Futures Project</i> student teachers to plan and implement a culminating STEM project with linguistically and culturally diverse families and school community.																																
Collect evaluation data on participation feedback from students and/or parents/families attending the outreach STEM project																																



Responsible: Project Director, Assistant, Project Evaluator	Quarters	Year 1				Year 2				Year 3				Year 4				Year 5			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Activities:</b>																					
Submit an IRB application and updated requests as appropriate;																					
Request graduating <i>Futures Project/Bilingual Teacher Pathway</i> teacher candidates to commit to staying in contact to help the program gather follow-up data;																					
Maintain an alumni data base of program completers;																					
Contact teachers 1, 3, and 5 years after completion to collect data;																					
Collect GPRA data from program completers																					
Collect data in the form of surveys, interviews and/or focus group;																					
Analyze data for themes and findings, which will enable the program to be strengthened;																					
Share findings with Consortium members, with the Office of English Language Acquisition through annual and final performance reports, and with interested educators through publications, and professional conferences.																					

(c)(2) The time commitments of the project director and key project personnel are appropriate and adequate to meet the objectives of the project.

Table 5. Person-Loading: Days per year based on FTEs															
De La Vega = 104 days per year; Pullen = 65 days per year; STEM GRA = 117 days per year															
Personnel	Outreach/recruit/retain					Training/confer/meetings					Eval/disseminate/report				
	YEAR	1	2	3	4	5	1	2	3	4	5	1	2	3	4
DeLaVega	50	50	50	50	50	30	30	30	30	30	24	24	24	24	24
Pullen	45	45	45	45	45	15	15	15	15	15	5	5	5	5	5
STEM GRA	40	40	40	40	40	50	50	50	50	50	27	27	27	27	27

**(d) Quality of the project evaluation**

(d)(1) The methods of evaluation are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the project. The evaluation design will accommodate both formative and summative data collection and analysis. The evaluation activities will be continual and on-going using both objective and subjective data. The focus of the evaluation activities will be to provide timely, accurate, and other relevant information to project personnel and participants about the success of the training activities and how they respond to the participants' teacher preparation training needs. The Project will incorporate a multi modal evaluation approach designed to a) determine the status of the project objectives dealing with 1) recruitment, admission, and retention of bilingual/bicultural paraprofessionals; 2) implementation of activities to infuse STEM content into the Bilingual Teacher Pathway program; 3) collaboration activities; and 4) monitoring and reporting of teacher candidates'

progress toward acquiring competencies in teaching science and using technologies with English learners, **b)** ensure quantifiable measurements of outcomes in accordance with *the Government Performance and Results Act (GPRA)*, and **c)** evaluate the project's built-in longitudinal plan to conduct research on beginning bilingual teachers' preparation to teach in STEM content areas and use technologies with their EL students, and on their use of data-based decision making as a classroom practice. The Project will be evaluated by Dr. Macedo. He has directed the Bilingual/ESL Studies Program at UMass Boston since 1983 and has worked as an evaluator for Title VII and Title III projects at both K-12 and university levels for over 25 years.

The Project will use the CIPP (Context, Input, Process and Product) Evaluation Model (Stufflebeam, 2000), which is a product/process model that will be used for evaluation purposes. The model is a "comprehensive framework for guiding evaluators of programs, projects, personnel, products, institution, and systems." The CIPP Evaluation checklist will be used to evaluate contractual agreements, context, input, process, impact, effectiveness, sustainability, transportability, and meta-evaluation and final synthesis report. The evaluation design will accommodate both formative and summative data collection and analysis. The evaluation activities will be accomplished under the direction of the project evaluator using both on-going objective and subjective data. The focus of the evaluation activities will be to provide timely, accurate, and relevant information to project personnel and participants about the success of the training activities and how they respond to the participants' teacher preparation training needs.

The following program evaluation activities will be conducted to determine the status of the program objectives, specifically those dealing with recruitment and retention, infusion of STEM into the Bilingual Teacher Pathway program, collaboration activities, and monitoring participants' competencies in teaching STEM content with English learners.

**1. Recruitment & Retention Activities** The evaluative documentation will identify the recruitment activities conducted to encourage participation in the training program and determine the appropriateness of these activities. **Documentation:** List of students admitted to the program, GPA, satisfactory progress as certified by transcript, reports of participants' use of tutoring or test-taking support services, list of licensed program completers, list of Bilingual/ESOL endorsed teachers.

**2. Infusion of STEM** The evaluative data will describe the appropriateness of the new science courses developed and STEM integration into three required courses, along with the professional development workshops planned to infuse STEM into the existing Bilingual Teacher Pathway program. **Documentation:** Records of courses designed, including submission through governance structure for approval, records of integration of STEM content into courses, records of STEM Advisory Group meetings, and list of participants' attendance to professional development workshops.

**3. Collaboration Activities** The evaluative documentation will identify the collaboration activities conducted to a) create a STEM Advisory Group to plan professional development workshops, b) to collaborate with LEAs on field placements for student teaching, and c) to support teacher candidates planning and implementation of STEM outreach project with linguistically and culturally diverse students and parents/families. **Documentation:** Records of STEM Advisory Group meetings, list of LEA partnership inservice teachers attendance to professional development workshops, records of Consortium meetings with LEA partner liaisons, list of plans and dates for teacher candidates' STEM outreach project, evaluations/feedback from students, parents/family participants in the STEM outreach projects.

**4. Monitoring & Reporting** The evaluative documentation will identify the evaluative, monitoring, and reporting activities conducted to determine the effectiveness of the infusion of STEM into the Bilingual Teacher Pathway program, the level of responsiveness of the program

to the students' needs and the areas of course refinement/change/addition to make the new science education courses and STEM professional development workshops more appropriate to the training needs preservice teachers. In relation to the program participants' evaluation, instrumentation used and data analysis conducted will directly reflect competencies in the teaching of STEM content and in ESL education. The data analysis will focus on the level of attainment that the program participants have achieved, determined by established competency-based criterion levels. **Documentation:** Records of participants' GPA, list of participants' scores on their Teacher Work Samples, course evaluations, professional development workshop feedback and evaluations, surveys, interviews, and focus group data.

**(d)(2) The methods of evaluation include objective performance measures clearly related to the intended outcomes and will produce quantitative and qualitative data to the extent possible:** Each objective has a clear statement of the intended outcome(s). Data will be gathered on an ongoing basis that indicates if the objective is on track to achieve the intended outcome or not. Both **quantitative** data as well as **qualitative** data is gathered. Qualitative data is gathered on ongoing basis by collecting samples of participant work, soliciting open ended survey questions from participants regarding the quality and usefulness of the information they are receiving, reflection papers, and through interviews and focus group discussions. Quantitative data will is gathered on ongoing basis by participants' GPA, course completion information, and rubric scores from projects, field experience evaluations, Teacher Work Samples, course evaluations, and collecting pre/post self-reporting data on STEM competencies. The evaluator will collaborate with project staff, especially during the first year to ensure that the project evaluation is systematic and to develop instruments to quantitatively and qualitatively measure project measures and GPRA performance measures, to measure baseline conditions and

ongoing pre-post implementation. Data on project progress and impact will be gathered using the following major evaluation methods, referenced to project objectives (in parentheses):

- Regular contact with project staff will track the development of project activities/resources. At least monthly and more frequent updates during active parts of the years will keep the evaluation team apprised of activities and project staff up to date on evaluation activities.
- Participant surveys will be developed and used annually with *Future Project* participants to examine the overall effectiveness of the program including the infusion of STEM content into the BTP program. (Objectives 1.A., 2.A., 2.B., and 4.B.)
- Document reviews will be used to acquire comprehensive and historical information on areas such as program development, licensure, enrollment, changes in syllabi, course evaluations, and running records of project activities. (All objectives)
- Participant work samples will be examined (winter and spring) to document participants' acquisition of content knowledge (with a focus on STEM), pedagogical skills, and integration of effective instructional practices for English learners students (Objective 4.A.)
- Feedback forms will be developed in collaboration with the STEM Advisory Group for professional development workshop participation every term. Instruments will be used post-training to gauge participant satisfaction with project activities and to gather information on the effectiveness of training sessions. (Obj. 2.A. and 3.A.)
- Participant Interviews and Focus Groups will be held during the spring of each year to examine the effectiveness of project implementation strategies. (All Objectives)
- Consortium liaison surveys will be used to provide annual feedback program collaboration activities and project outcomes from the perspective of district partners. (Obj. 3.B. and 3.C.)
- Evaluation memos will be written to cycle evaluation findings back to project staff on a

timely basis to facilitate utilization of results and establish a context for interpreting annual and summative findings. (All Objectives)

- Annual reports will capture formative and summative findings, recommendations, and conclusions. During the last grant year the annual report will serve as a final report documenting effective strategies and components suitable for replication as well as overall impact of the project. (All Objectives)

The timeline below identifies evaluative activities for implementing and administering each task.

<b>TIMELINE 2012-2017</b>	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Regular Contact	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Participant Surveys				✓			✓			✓		✓
Document Reviews	✓		✓		✓		✓		✓		✓	
Participants' Work Samples							✓			✓		
Feedback Forms				✓			✓			✓		✓
Interviews/Focus Groups							✓	✓	✓			
Consortium Surveys									✓			
Evaluation Memos			✓		✓	✓	✓	✓	✓	✓		
Annual Reports									✓	✓		

**(d)(3) The methods of evaluation provide performance feedback and periodic assessment of progress toward achieving intended outcomes:** To document the effectiveness of the *Futures Project*, the evaluator will examine several measurable perceived student outcomes: Participants' competencies determined by Teacher Work Sample rubric scores, successful completion of program, participants' judgments of the effectiveness of the advising

program , and the input of the collaborating districts as well as evaluations of the strengths and limitations of the *Futures Project* course of study. All surveys use Likert-type scales that ask participants to express the extent of their agreement with each scale item by marking a point between non-agreement to definite agreement. Overall triangulation of data will be tied into successful program completion.

**Longitudinal panel time series survey progression.** This design calls for collecting information on the same set of variables from the same teachers at two or more points in time. Each distinct occasion when data are collected from the sample members is referred to as a “wave” or round of data collection (Tourangeau, Zimowski & Ghadialy, 1997). Data collection will begin in year 2013 with the first graduating cohort of *Future Project* teacher participants and will continue to add a new wave or cohort for each subsequent year for a total of 4 waves at the completion of the project in 2016-2017. Feedback from the evaluator at the end of each year will guide program implementation and potentially necessitate project improvements along the way.

In addition to the annual performance reports and the final report submitted to the United States Department of Education, quarterly progress reports (formative evaluations) will be done by the evaluator, to take an in-depth look at the participants' progress and program effectiveness so that changes in activities can be adjusted accordingly to ensure that all program objectives are met.

In order to provide data on the progress of the *Futures Project*, the achievement of project goals and objectives will be continuously monitored. Not only will the Project monitor the fulfillment of goals and objectives (i.e., the 'numbers' are being met) but also the quality of services provided in support of those objectives. Although the process is important, outcomes are the key to success of Project. The Project Director along with the other project staff, including the Evaluator assigned to the project, will make sure that the *Futures Project* outcomes are achieved.