U.S. Department of Education

Washington, D.C. 20202-5335

APPLICATION FOR GRANTS UNDER THE

NATIONAL PROFESSIONAL DEVELOPMENT PROGRAM
CFDA # 84.365Z
PR/Award # T365Z110040
Grants.gov Tracking#: GRANT10863550

Closing Date: MAY 09, 2011

Project Reach Abstract

Name of the Institute of Higher Education: University of Maine

Title of Program: Project Reach

Consortia Partners: The University of Maine will partner with the Maine State Education Agency and the fifteen Local Education Agencies (LEAs) with the largest English Learners (ELs) populations in Maine. The number of ELs in these LEAs currently totals **3,849** (79% of all ELs in Maine).

Project Description: *Project Reach,* an innovative, comprehensive, statewide project coordinated through the University of Maine (UMaine), will serve **32 pre-service teachers** to complete certification with English as a Second Language (ESL) endorsement. The project will focus specific efforts on teachers from STEM (science, technology, engineering, and math) areas. In addition, **35 in-service** teachers will complete ESL endorsement coursework and ESL Praxis II exam. Through four core components, the project will ensure that teacher training efforts assist ELs to meet rigorous state and local educational standards.

1) ***Comprehensive Teacher Training Component:*** The project will support **32 pre-service teachers** (four 2-yr. cohorts of 8 students, entering in yrs. 1 – 4, with the final cohort of 8 completing in yr. 5), of which 8 are from STEM areas (2/yr., entering in yrs. 1 – 4) to complete teaching certification and be ESL endorsed. Each participant will receive two years of coursework, stipends, mentorship and advising. 28 (7/yr. in yrs. 2 – 5), of which 7 are from STEM areas (1-2/yr. in yrs. 2 – 5) pre-service teacher completers will be placed in the instructional settings serving ELs within one year of program completion. **35 in-service teachers** (7/yr.), of which 8 are in STEM areas (1-2/yr.), will complete ESL endorsement coursework and successfully ESL Praxis II exam.

2) ***EL Curriculum Component:*** The Research Team will develop **3 new courses** (*Mainstreamed English Learners; ELs in Math; ELs in Science)* to train content area teachers to work with ELs; generate new research on ELs in Maine; deliver **8 courses annually** aligned with Maine's Standards and EL proficiency standards as summer institutes and online courses; and formalize a **new Graduate Certificate**.

3) ***EL Research Component:*** The project will demonstrate excellence in research through the support of **1 doctoral student**, establish a longitudinal **ESL Teacher Impact Study**, generate and disseminate of at least **5 peer-reviewed articles** and **5 technical reports** on a range of relevant topics (1 each per project year), develop and deliver **2 workshops** on graduation/college entry issues for ELs, and present research results at **10 professional conferences** (minimum 2 per year). To improve Institution of Higher Education practices, each project year, the project will **add 1 new faculty member** to its research team.

4) ***EL Outreach Component:*** The project will provide **technical assistance** to partner LEAs in the form of **25 customized workshops**, develop and deliver **2 annual on-**

(a) Quality of the Project Design

Project Reach, an innovative, comprehensive, statewide project coordinated through the University of Maine (UMaine), will support research-based professional development activities specifically designed to improve classroom instruction for English Learners (ELs) across Maine's diverse educational and geographic settings. *Project Reach* will form a consortium with the State of Maine Department of Education's (DOE) State Education Agency (SEA) and 15 Local Education Agencies (LEAs) to implement a research-based collaborative that extends across the large, rural state of Maine to address diverse needs of pre- and in-service teachers working with ELs. *Project Reach's* comprehensive EL teacher training program uses data-driven decision making strategies to improve teacher training and study the impacts of these efforts on student performance. Through iterative feedback loops of implementation and research, the project will assist educational personnel working with ELs to meet Maine's high professional standards for **teacher certification** and English as a Second Language (ESL) **endorsement**. The project will ensure that teacher training efforts assist ELs to meet rigorous state and local educational standards, Maine's Common Core State Standards (CCSS) and World-Class Instructional Design and Assessment (WIDA) proficiency standards. While the project aims to improve EL teacher training and student learning, it focuses specific efforts on teachers from STEM (science, technology, engineering, and math) areas.

Project Reach has developed a place-based model that addresses local needs and utilizes EL best practices and knowledge. The project draws on expertise and assets in Maine to utilize knowledge and research to support STEM education of ELs at all levels.

The five-year project will provide statewide services through a comprehensive program of study for pre- and in-service teachers; significant improvement of the UMaine teacher education program (especially for STEM educators); new research efforts designed to collect and analyze data on EL teachers and EL performance; and outreach and technical assistance to LEAs. The project's core components will undergo rigorous research and evaluation designed to feed back into the project to improve strategies for achieving goals and objectives. *Project Reach* will respond to the following targets (corresponding GPRA Measures indicated):

A.1. The number of **pre-service teachers** expected to be served: 32 (four 2-yr. cohorts of 8 students, entering in yrs. 1 – 4, with the final cohort of 8 completing in yr. 5), of which 8 are from STEM areas (2/yr., entering in yrs. 1 – 4)

A.2. The number of **pre-service teachers** expected to complete the teacher certification program of study: 32 (8/yr. in yrs. 2 – 5), of which 8 are from STEM areas (2/yr. in yrs. 2 – 5)

A.3. The number of **pre-service teacher** completers expected to be placed in the instructional settings serving ELs within one year of program completion: 28 (7/yr. in yrs. 2 – 5), of which 7 are from STEM areas (1-2/yr. in yrs. 2 – 5) (GPRA 1.2)

A.4. The number of **pre-service teacher** completers expected to provide instructional services to ELs three years after program completion: 14 (7/yr. in yrs. 4 – 5), of which 4 are from STEM areas (2/yr. in yrs. 4 – 5) (GPRA 1.3)

A.5. The number of **pre-service teachers** expected to complete the program of study and be certified in EL instruction: 32 (8/yr. in yrs. 2 – 5), of which 8 are from STEM areas (2/yr. in yrs. 2 – 5) (GPRA 1.1)

B.1. The number of **in-service teachers** expected to be served: 285 (250 through technical assistance (50/yr.); 35 in ESL Endorsement program (7/yr.), of which 8 are in STEM areas (1-2/yr.)

B.2. The number of **in-service teachers** expected to complete the program of study: 35 (8-9/yr. in yrs. 2 – 5), of which 8 are in STEM areas (2/yr. in yrs. 2 – 5)

B.3. The number of **in-service teachers** expected to complete the program of study and be endorsed in EL instruction: 35 (8-9/yr. in yrs. 2 – 5), of which 8 are in STEM areas (2/yr. in yrs. 2 – 5) (GPRA 1.5)

B.4. The number of **in-service teacher** completers expected to serve EL students: 35 (8-9/yr. in yrs. 2 – 5), of which 8 are in STEM areas (2/yr. in yrs. 2 – 5) (GPRA 1.6)

UMaine lies in central Maine and is the land-grant, sea-grant, flagship institution of the UMaine System and the state's only doctoral granting institution. UMaine has a significant impact on LEAs across the state. UMaine alone educates 35% of all students enrolled in public Institutions of Higher Education (IHEs) in Maine, and UMaine's College of Education and Human Development (COEHD) prepares more teachers than any other institution in the state. 20% of all teachers currently working in Maine's public schools received their bachelor's degree from COEHD, and UMaine has trained 30.4% of all ESL teachers in Maine. LEAs across the state depend on UMaine to offer continuing education in the form of contact hours and coursework.

UMaine plays an important role in the preparation and continuing support of EL teachers. **UMaine is the only teacher-training institution that provides statewide support for pre- and in-service teachers working with ELs**. *Project Reach* will provide necessary support to ensure that teaching personnel serving low-incidence

populations in both remote and urban areas receive support to meet the needs of Maine's growing population of ELs. Without this project, districts outside of Maine's urban areas in southern Maine will not have options for pursuing ESL endorsement and receiving technical assistance. It is vital that communities across Maine continue to have access to EL outreach and training to support EL students.

(a) (1) *Goals, Objectives, and Outcomes are Clearly Specified and Measureable*

Project Reach's goals, objectives, and outcomes draw on deep understanding of and experience with the current need for EL professional development training and outreach in Maine. It is important that project efforts dovetail with current local needs. We provide a brief overview of these needs and the project's four **core components.**

➢ **Maine's Need for *Project Reach***

EL students and teaching personnel who support them contend with distinct challenges in Maine that look different from the needs that most other states in the U.S. face. As a large, rural state, Maine faces issues of widespread poverty and other forms of disenfranchisement that create significant social, economic, and educational challenges and barriers for EL students. These challenges place ELs at risk for failing in the educational system, and as they enter the workforce, they face increasing disadvantages. Many EL students in rural areas of Maine come from bilingual French-English speaking Franco-American families (370 EL students) and Wabanaki (Native American) communities (239 EL students). In addition, the population of Maine has experienced dramatic shifts through the resettlement of refugees and new immigrants. Currently, Maine's schools serve **close to 4,900 ELs from 98 language groups.** Lack of English language skills leads to compounded sets of issues and problems for ELs.

EL status directly impacts students' ability to succeed in content areas of instruction, especially in STEM areas. This lack of achievement impacts EL students' ability to graduate from high school and have equal opportunity to enter college, which then impacts their ability to enter into and perform in a changing workforce that increasingly demands higher levels of expertise and skill. The identified needs inform *Project Reach's* design and enable the project to provide local solutions to local educational problems. In the following section, we describe the project design.

- **Overview of *Project Reach's* Four Core Components**

Project Reach's comprehensive plan is based on research models for professional development as outlined by the National Board for Professional Teaching Standards and other research-based instructional models supported by the Office of English Language Acquisition (OELA). *Project Reach* serves 15 districts throughout Maine with the largest numbers of ELs. These (followed by the number of ELs) include: Auburn (175), Bangor (51), Biddeford (73), Lewiston (966), Madawaska (74), Maine Indian Education (158), Maine School Administrative District (MSAD) #33 (84), MSAD #27 (5), Portland (1,706), Regional School Unit (RSU) 23 (51), RSU 88 (85), Sanford (79), Scarborough (55), South Portland (160), and Westbrook (127). The number of ELs in these districts accounts for **3,849 (79%)** of the total 4,874 ELs statewide. The partner LEAs will contribute to the project by helping to recruit teachers for the comprehensive teacher training component and host workshops and site visits in their districts. Each year, new districts, especially in rural, impoverished areas, acquire EL students. The project will invite additional districts to join the consortium as need arises. The SEA will partner across many aspects of the project, as outlined throughout the following

sections. Cooperative agreement letters from initial partner LEAs and the SEA are on file at UMaine. The project includes **four core components,** outlined in Table 1.

Table 1: Overview of Four Core Components

Component	Description	Five-Year Outcomes
1. Comprehensive Teacher Training (See Goal 1, Objectives 1.1-1.9)	Certification & ESL Endorsement program and mentorship system for pre- and in-service teachers, especially in STEM areas	**Pre-service teachers**: 32 (8 STEM) served certified, & endorsed, 28 (7 STEM) placed. **In-service teachers:** 35 (8 STEM) served, endorsed, & placed. See **targets** on pp. 2-3
2. EL Curriculum (See Goal 2, Objective 2.1-2.2; Goal 3, Objective 3.2; Goal 4, Objective 4.2; and Goal 5, Objective 5.2)	Innovative, research-based curricula (in STEM areas), new coursework & Graduate Certificate aligned with CCSS, WIDA, & ESL Praxis II. Integrates Teacher Impact Study & graduation/college entry data into curriculum.	3 new courses including 2 on EL/STEM and 1 on mainstreamed ELs; 40 courses delivered and aligned with CCSS & WIDA; and a new ESL Graduate Certificate.
3. EL Research (See Goal 3, Objectives 3.1-3.5 and Goal 4, Objectives 4.1-4.2)	Research team builds EL research capacity at UMaine; reviews existing literature; generates and disseminates new research to support EL	5 peer-reviewed articles; 5 tech. reports; 1 doctoral student supported; 10 conference presentations; 5 new project faculty; establish longitudinal ESL

	instruction and refine program design. Includes analysis of ELs' graduation/college entry rates.	Teacher Impact Study, resulting in informed instruction; establish data collection & mgt. system for tracking grad/college entry rates.
4. EL Outreach (See Goal 4, Objective 4.2 and Goal 5, Objectives 5.1-5.3)	Outreach and technical assistance for LEAs. This includes workshops, reports, institutes, site visits, website, newsletters, & consultation.	250 in-service teachers served via two 3-day Institutes; 25 statewide workshops on STEM, Praxis II prep, graduation/college entry, EL Strategies; Lending Library; IHE support via 2 annual seminars.

➢ **Goals, Objectives, and Outcomes**

The project **goals** align with OELA's efforts to 1. upgrade qualifications and skills of educational personnel not certified or licensed; 2. develop program curricula appropriate to partner LEA needs; and 3. collaborate with other federal need-based student financial assistance programs including UMaine's Native American Waiver and campus TRIO programs. *Project Reach* **specifically addresses two competitive priorities:** 2. Collect, analyze, and use high-quality and timely data, including data on program participant outcomes, in accordance with privacy requirements, with the specific goal of improving instructional practices, policies, and student outcomes in elementary and secondary schools; and 3. Increase opportunities for high-quality preparation of and professional development for STEM teachers. The project design **addresses both invitational priorities** to 1. Improve achievement and high school graduation rates and 2. Improve preparation of all teachers to better serve ELs. All project efforts are

designed to address the needs of ELs. This section links goals to objectives and measurable outcomes and aligns objectives with GPRA measures.

Goal 1. *To upgrade qualifications and skills of pre- and in-service teachers, especially in STEM areas, working with ELs.*

Objective 1.1. The program will recruit and serve a cohort of **32 pre-service teachers, of whom 8 are from STEM areas**, to participate in the program. We will recruit four 2-year cohorts of 8 students (2 from STEM), entering in years 1 – 4, with the final cohort of 8 completing in year 5. Pre-service teacher candidates will demonstrate high academic and professional standards as evidenced by a minimum GPA of 3.0, strong letters of recommendation from faculty or instructors, and passing scores on the Praxis I exam. Aligns with target A.1.

Objective 1.2. By the end of year 5, **32 pre-service teachers** (8 per year in years 2 – 5), **of whom 8 are from STEM areas** (2 per year in years 2 – 5) will have completed the teacher certification program of study. Pre-service teacher learning will be measured by project assessments, surveys, and interviews. Aligns with target A.2.

Objective 1.3. By the end of year 5, **28 pre-service teacher program completers** (7 per year in years 2 – 5), **of whom 7 are from STEM areas** (1-2 per year in years 2 – 5) will be placed in the instructional setting serving ELs within one year of program completion. (Note that we account for the potential loss of one student per cohort who may not be placed in an EL setting). The project will work with LEAs to place teachers. Pre-service teacher learning will be measured by observation, analysis of videotaped instruction of classroom practices, project developed assessments, teacher surveys and interviews. Aligns with target A.3 and GPRA 1.2.

Objective 1.4. By the end of year 5, **14 pre-service teacher program completers** (7 per year in years 4 – 5), **of whom 4 are from STEM areas** (2 per year in years 4 – 5) will be providing instructional services to ELs three years after program completion. Pre-service teacher learning will be measured by observation, analysis of videotaped instruction of classroom practices, project developed assessments, teacher surveys and interviews. Aligns with target A.4 and GPRA 1.3.

Objective 1.5. By the end of year 5, **32 pre-service teacher program completers** (8 per year in years 2 – 5), **of whom 8 are from STEM areas** (2 per year in years 2 – 5) will have completed teaching certification, endorsement coursework, and ESL Praxis II exam. Pre-service teacher learning will be measured by project developed assessments, surveys, and interviews. Aligns with target A.5 and GPRA 1.1.

Objective 1.6. The program will work with partner LEAs and the SEA to recruit and serve a cohort of **35 in-service teachers** (7 per year), **of whom 8 are from STEM areas** (1-2 per year) to participate in the program. In-service teacher candidates will demonstrate high academic and professional standards as evidenced by strong letters of recommendation from principals or colleagues and detailed applications outlining their commitment to serving ELs in the classroom. Aligns with target B.1.

Objective 1.7. By the end of year 5, **35 in-service teachers** (8-9 per year in years 2 – 5), **of whom 8 are from STEM areas** (2 per year in years 2 – 5) will have completed the 15 credits leading to ESL Endorsement program of study. Teacher learning will be measured by analysis of observation of classroom practices, project developed assessments and teacher surveys. Aligns with target B.2.

Objective 1.8. By the end of year 5, **35 in-service teachers** (8-9 per year in years 2 – 5), **of whom 8 are from STEM areas** (2 per year in years 2 – 5) will have completed their ESL Endorsement coursework, passed ESL Praxis II exam, and earned their ESL Endorsement. Teacher learning will be measured by analysis of observation of classroom practices, project developed assessments and teacher surveys. Aligns with target B.3 and GPRA 1.5.

Objective 1.9. By year 5, **35 in-service teacher program completers** (8-9 per year in years 2 – 5), **of whom 8 are from STEM areas** (2 per year in years 2 – 5) will serve ELs. In-service teacher learning will be measured by analysis of observation of classroom practices, project developed assessments (including peer observation checklist), teacher surveys and interviews. Aligns with target B.4 and GPRA 1.6.

Goal 2. *To develop innovative, research-based curricula appropriate to needs of consortia participants.*

Objective 2.1. Faculty, in consultation with LEAs and the SEA, will develop **3 new courses** (*Mainstreamed English Learners; ELs in Math; ELs in Science)*. Courses will reflect CCSS and improved content in instructional and assessment strategies related to the needs of ELs. The project will work with the Maine Mathematics and Science Alliance and the Maine STEM Initiative to develop coursework that dovetails with Maine STEM education standards and best practices. The development of the new research based coursework will strengthen UMaine's ability to train content area teachers to work with ELs as measured by review of course syllabi, checklist of competencies, and formalization of a new Graduate Certificate in ESL at UMaine.

Objective 2.2. Faculty will deliver **8 courses annually (40 over 5 years)**. Each year, 4 will be offered as summer institutes, and at least 2 online courses will be offered to serve the needs of EL teachers in rural areas. Course evaluations, review of syllabi, and checklist of competencies will ensure that coursework meets high standards.

Goal 3. *To collect, analyze, and utilize high-quality data on program participant outcomes to improve instructional practices, policies, and student outcomes in elementary and secondary schools.*

Objective 3.1. The project will develop a research team that consists of at least **3 core faculty, 1 doctoral student, and 5 new faculty** integrated at a rate of one per year into the project. The research team will consult regularly with the SEA and will demonstrate its ability to collect, obtain, analyze and utilize data as evidenced through the production of at least **5 peer-reviewed articles** and **5 technical reports** on a range of relevant topics **(1 each per project year)** and presentation of research results at **10 professional conferences (minimum 2 per year)**.

Objective 3.2. The Research Team will review and align the **5 existing ESL endorsement courses** and the **3 newly developed courses** with the CCSS and other proficiency standards (ESL, math, and science standards, etc.). Review of syllabi, checklist of competencies will ensure that coursework meets high standards.

Objective 3.3. The project will demonstrate excellence in research through the support of **1 doctoral student**. By the project's end, completion of the doctoral dissertation, at least 2 peer-reviewed articles, and presentation of research at 3 or more conferences will provide measureable evidence of success.

Objective 3.4. The Research Team will develop and institutionalize a procedure in collaboration with the SEA entitled **The ESL Teacher Impact Study** to track and document the longitudinal impact of UMaine's EL teacher training program on ELs using the **COEHD Student Information System (SIS)**, a comprehensive system to track pre- and in-service teachers. The SIS will serve as both a source for existing data (e.g., grades) and the infrastructure for collecting additional information specifically for this project. Data collected includes *pre-service teacher demographics*, *grades*, *test scores*, and *degree information*. To evaluate the impact of teachers on ELs, the study will draw on data from **Maine State Longitudinal Data System (SLDS)**, which contains individual student-level data for all students in Maine's public schools across multiple years, including *student demographic data*, *Educational service data* (ESL status), and *student level performance on local and state assessment*. In addition to SIS and SLDS, the project will evaluate program participants from the current and previous EL Professional Development training efforts and include assessment of their impact on ELs. This procedure will enable UMaine to track the impacts of the project after the formal grant period has ended. It will collect additional data on students' performance in collaboration with LEAs. Progress will be measured by development of a research framework and establishment of a formal tracking policy. The project has received IRB approval from UMaine to proceed with this study.

Objective 3.5. The research team will review and select scientifically-based research to develop the EL teacher training program and improve intersections of EL with STEM. The team will align STEM standards with EL research. The generation and

dissemination of new research **(minimum 5 peer-reviewed articles over 5 years)** will provide insight into issues facing teachers and ELs in Maine as evidenced by improvements in teacher knowledge and application through analysis of observation of classroom practices, project developed assessments, surveys and interviews.

Goal 4. *Improve high school graduation and college entry rates for ELs in rural LEAs.*

Objective 4.1. The Research Team will **assess existing infrastructure in Maine for tracking ELs' progress to high school graduation and college entry**. Currently, there is no system to produce and track this data, and we will partner with the SEA and LEAs to develop reporting and tracking mechanisms across Maine. To track EL college entry rates at UMaine, we will work with UMaine's Office of Admissions and Office of Institutional Studies in years 1 – 2. In years 3 – 5, we will work with the UMaine System office to track EL entry rates to the other six system campuses and Maine's seven community colleges. Progress will be measured by the establishment of a data collection and management system.

Objective 4.2. Based on the data produced in objective 4.1, the project will develop appropriate, research-based strategies for supporting ELs to graduate high school and enter college. Strategies will include: integration of **curriculum materials** into ESL endorsement coursework; **2 workshops** (1 each in years 2 and 4) on graduation and college entry issues for ELs; ongoing **technical assistance** for districts to improve networks and support for EL graduation and college entry; and **5 technical reports** in collaboration with the SEA (1 per year) on project findings. Review of syllabi, evaluation of workshops, analysis of observation of classroom practices, project developed assessments, and teacher surveys will track progress.

Goal 5. *Improve preparation of all teachers to better serve ELs through improvements in Institute of Higher Education (IHE) practices and outreach to LEAs.*

Objective 5.1. To improve IHE practices, each project year, the project will **add 1 new faculty member** to its research team. The team will develop and deliver **2 annual on-campus seminars** for other faculty in COEHD on topics such as research-based instructional practices, assessment strategies, theories of language acquisition, and EL and STEM education. Faculty participant learning will be measured by analysis of project developed assessments and participant evaluations of seminars.

Objective 5.2. To reach all pre-service teachers at UMaine, the project will **design a new course, *Mainstreamed English Learners***. The course will be offered in years 2 and 4 and will ensure that ESL best practices and research are integrated across COEHD's curriculum. The project will also work with faculty to incorporate ESL components into required education coursework, thus ensuring that all teachers graduating from UMaine are better prepared to serve ELs in their classrooms. Review of syllabi will serve to ensure that coursework includes relevant information.

Objective 5.3. Each project year **5 workshops (25 total over 5 years)** will be offered to teachers at partner LEAs on topics such as research-based instructional practices, enhanced assessment, CCSS, STEM and experiential learning for ELs, and ESL Praxis II preparation. The project will also partner with the SEA to offer **two in-depth 3-day institutes** in years 2 and 5 on topics such as WIDA standards, ESL Proficiency, STEM/ESL alignment, and capacity building. The project will share its research results with teachers and strengthen mentorship and collaboration opportunities for mainstream and ESL teachers. Participating teachers will

demonstrate improved instructional competencies as measured by analysis of project developed assessments, evaluation of workshops, ability to pass ESL Praxis II exam, analysis of classroom practices, interviews and surveys with teachers.

- **Additional Information on Project Core Components**

1. Comprehensive Teacher Training Component: Across all phases, the project will partner with LEAs and the SEA to identify and support program participants. Maine differentiates between a *certification* and an *endorsement.* Teachers must hold a state certification based on a set number of education and content area courses. Pre- and in-service teachers can also pursue an ESL endorsement, which requires 15 credit hours in ESL and a passing score on the ESL Praxis II exam. UMaine's ESL coursework aligns with the ESL Praxis II exam and prepares candidates to pass the exam.

Pre-service participants will receive support for two years of coursework (including annual stipends and tuition support for 5 ESL endorsement courses, 15 credit hours), an advisor, an in-service teacher mentor, and support services prior to the completion of certification requirements. Prospective participants must submit an application form, three letters of recommendation, university transcripts, and a letter of commitment to working with ELs in public schools. A selection team (co-directors and faculty) will admit participants and award stipends based on the following criteria: academic merit, future promise, and commitment to the project. The project will encourage the participation of individuals from underrepresented and language minority groups. Once participants are placed in the instructional setting, project staff will provide support in the form of ongoing mentorship, workshops, and web-based resources. Newly placed teachers will be connected with an experienced mentor teacher. The project website will

advertise activities and networking opportunities. Research reports and information produced in collaboration with the SEA will offer current research on ESL practices and strategies. Table 2 summarizes the Pre-service Program.

Table 2. Summary of Pre-service Program

Semester	ESL Coursework	Activities
Fall	**Methods: Teaching ESL (ELL 470 / 570)*	Assign faculty advisor, introduction to project resources, and academic guidance
Spring	*Testing & Assessment (ELL 480 / 580)*	Ongoing mentoring, introduction to UMaine resources, and workshops
Summer	*Multiculturalism (ELL 491 / 591) or Mainstreamed ELs*	Advising, ongoing mentoring, and support related to internships/work opportunities
Fall	**Curriculum Development (ELL 475 / 575)*	Ongoing mentoring, informal gatherings, and networking with in-service teachers
Spring	*Student Teaching*	Information about job fairs, ESL Praxis II preparation workshops, and mentoring
Summer	Applied Linguistics (ELL 485 / 585)	Ongoing mentoring, information about career options, and workshops
* The project will offer STEM versions of these courses on a rotating basis		

In-service participants will receive tuition waivers for five ESL endorsement courses (15 credit hours). Prospective participants must apply for admission with an application form, letter of recommendation, and demonstrated commitment to working with ELs. The selection team will admit participants and award stipends based on

qualifications and commitment to the project. The project will encourage the participation of individuals from underrepresented and language minority groups.

2. English Learner Curriculum Component: Maine's ELs require innovative curricular efforts designed to reach EL teachers working in diverse settings. According to a statewide teacher survey (UMaine 2011), 78.9% express interest in technology based coursework, and 87.9% prefer onsite workshops. This underscores the need for accessible coursework and outreach efforts on site, on campus, and via distance technology. The ability to address this need depends on IHE faculty development and research, especially in the intersection of EL and STEM education. UMaine is poised to align its ESL teacher training program with STEM areas and produce innovative research. While numerous UMaine faculty hold expertise in relevant areas, the campus has yet to draw on statewide knowledge to coherently merge STEM and EL efforts. The project budget includes funding for annual internal, competitive grant competition to identify partner faculty in STEM areas who will join the Research Team at a rate of one person per year. Faculty will submit an application outlining their commitment to STEM/ESL and to collaborating with project staff and faculty to develop research-based STEM/ESL curriculum. They will receive a stipend ($5,000 per year) to serve two-year terms on the project and will contribute to curriculum design and institutional capacity building. The Core Faculty and Research Team will design a new Graduate Certificate in ESL. The inclusion of the new faculty will ensure that the project integrates EL into diverse content areas, especially in STEM areas. Currently, only teaching personnel seeking endorsement are required to obtain knowledge about ELs, yet most will

encounter ELs in their classrooms. The project will address this need by developing infrastructure to support training in ESL for *all* teachers as described in Goal 5.

3. English Learner Research Component: *Project Reach* focuses significant effort on collecting, obtaining, analyzing, and utilizing high-quality data to produce research results that feed back iteratively to the project and improve its efforts. Supporting EL teachers and their students must build on local knowledge and experience. Yet, there is little data and research on institutional practices, policies, and student outcomes in Maine. A cornerstone of *Project Reach* is its ability to undertake a significant, comprehensive research effort that will have institutional infrastructure beyond the life of the grant. At the center of this effort rests the Research Team, a data-driven evaluation component (see Section (d)), and a doctoral student jointly funded by a National Science Foundation grant, COEHD, and *Project Reach*. The doctoral student's research will support the project's primary goals and objectives and will lead to significant research outcomes.

4. English Learner Outreach Component: The project will address LEAs' needs by providing high-quality curriculum materials and customized workshops. Site visits will build bridges and encourage in-service teachers to pursue ESL endorsement coursework, enhance the resources and knowledge of teachers working with ELs, and provide opportunities for collaboration. Coursework, workshops, research, and mentoring will be aligned with the CCSS and research in EL/STEM instruction. Conference participation will ensure access to renowned scholars and provide support to faculty and the doctoral student to present research and project outcomes.

- **Institutional Capacity**

Project Reach is jointly administered through COEHD and the Margaret Chase Smith Policy Center (MCSPC). The MCSPC is a nonpartisan, independent research and public service unit at UMaine dedicated to improving and promoting the quality of public dialogue through applied policy research. COEHD and MCSPC have long-standing working relationships that have supported education in Maine. *Project Reach* draws on the joint expertise of these two units to support EL efforts through implementation and research. The project will benefit from a new statewide network of educators involved in STEM education and outreach through UMaine's EPSCoR program (Experimental Program to Stimulate Competitive Research), a project focused on building capacity for STEM research with a special emphasis on K-12 educational efforts for underrepresented groups. This partnership will build bridges across the state's diverse IHEs and provide significant STEM education efforts for EL teachers, especially in the areas of experiential learning and citizen science. The George Mitchell Center, which oversees the Sustainability Solutions Initiative, and COEHD have made significant fiscal commitments to *Project Reach.*

(a) (2) Project Design Reflects Knowledge from Research and Effective Practice

Project Reach draws on current knowledge in the fields of EL, STEM education, and experiential learning to ensure that research informs instruction and curriculum design, institutional change at UMaine, and outreach efforts. Research on predictors of EL achievement is central to the project design. The most current EL research emphasizes the need for strong integrative EL frameworks (Esparza-Brown & Doolittle 2008); emphasis on the relationship of L1 and L2 (Haynes 2007; Roessingh 2008), parental involvement (Duursma et al. 2007), teacher preparation (Gersten et al. 2005; Baker et

al. 2006) and individual differences based on age, gender, social economic status, and length of residence (Black 2005; Echevarria 2005; Haynes 2007; Kieffer 2008; Roessingh 2008). The project will train teachers to support ELs' need for strategic lexical development (Zhang 2008), explicit instruction of academic English (Bailey 2006), and engaged learning strategies, especially in STEM areas (Rivera et al. 2006; Knutson 2003; Valadez & Moineau 2010). EL teachers should become proficient in techniques for academic interventions in language and literacy (Cirino 2009, Rivera et al. 2006) and research-based vocabulary strategies (Hamann et al. 2004). Explicit instruction of academic language and application of ELs' own knowledge and culturally responsive pedagogy enhances their classroom performance (Richards et al. 2006).

The project will draw on research focused on how ELs with stronger language skills are more likely to complete high school and enter college (Black 2005). Similarly, institutional change will be based in research that stresses the need to transform schools and school leadership to support ELs (Calderon & Minaya-Rowe 2010). The project will ensure that activities reflect best practices based on empirical scientific research. We draw on current research and effective practices as outlined by the renowned scholars cited above and others not outlined here, and our project's research will contribute to this body of scholarship. Through evaluation of these and other relevant models, the project will prepare teachers to implement effective strategies for supporting ELs, especially in STEM areas (Janzen 2008; Silva et al. 2008). Through research based efforts, teachers will assist students in vocabulary building and differentiate between academic and conversational language. The project will align its research and implementation efforts with the growing body of WIDA scholarship, such

as research on alignment (eg. Cook & Wilmes 2007). The project will track research on exploratory learning and enhanced assessment to inform instruction (Cheng 2008).

(b) Quality of Project Personnel

- **Employment of Members of Groups Traditionally Underrepresented**

UMaine's equal opportunity policy provides that it does not discriminate on the grounds of race, color, religion, sex, sexual orientation, national origin, or citizenship status, age, disability or veteran's status. Individual units are responsible for implementing and following this policy, and employment practices must comply. Search committees for staff positions will take steps to create large, diverse applicant pools and give special consideration, when choosing among applicants with equal qualifications, to individuals from traditionally underrepresented groups, especially those from ESL backgrounds. Program job announcements will be sent to individuals, groups, organizations, and publications that serve these underrepresented individuals.

(b) (1) Qualifications of the Project Director and Principal Investigator

Project Director, Shelly Chasse-Johndro, has a Masters of Education from UMaine and an ESL endorsement. She has worked on Title III Professional Development Programs for seven years and has developed and taught several university ESL courses. She has expertise in distance education technology and has assisted faculty with onsite and online course preparation. As a Franco-American certificated in mathematics, she understands issues ELs in Maine face. She is co-founder and lead individual of the independent forum of Mathematics in TESOL. Her research focuses on language acquisition and instructional strategies in mathematics. She is president of

Northern New England TESOL, a member of the Foreign Language Association of Maine, and has completed the TESOL Leadership Development Certificate.

The **Principal Investigator and Co-Director,** Laura Lindenfeld, Ph.D., is an Associate Professor in the Department of Communication and MCSPC. She has served as a project director for Title VII and Title III Professional Development grants for eleven years. She holds a Ph.D. in Cultural Studies (University of California, Davis) and an M.A. in German and Linguistics from the University of Bonn, Germany. Her research focuses on civic and community engagement of underrepresented minority populations in Maine, especially in STEM areas. She regularly advises doctoral students on diversity and education in STEM and is a member of Maine STEM Collaborative.

(b) (2) Qualifications of Key Project Personnel

Faculty Research Team Member, Jessica Leahy, holds a Ph.D. in Natural Resources Science and Management from the University of Minnesota. An Associate Professor of Parks, Recreation and Tourism at UMaine, her research focuses on informal and formal science education in the context of experiential learning.

Outreach Coordinator, Marguerite MacDonald, holds a M.Ed. from the University of Southern Maine. She is a certified teacher and administrator with an ESL endorsement and Assistant Director of Portland Public Schools' Multilingual and Multicultural Center. With 25 years of experience in public education, she served as a principal of the Maine's most diverse elementary school. At the Maine Department of Education she was an Affirmative Action Officer and Assistant to the Commissioner of Education.

The ***Maine Education Policy Research Institute*** **(MEPRI)** will serve as the project's external evaluator. For 25 years, MEPRI researchers have provided non-

partisan, objective research and evaluation for the Maine DOE, state legislature, school districts, researchers, and various organizations. MEPRI was established by legislative statue and has a legislatively defined role that involves using DOE data to provide consultation to the DOE and State Legislature. MEPRI researchers are experienced at assessing program implementation, evaluation and research design for large-scale studies, development and use of surveys, interview and observation protocols, statistical analyses and qualitative data analyses. MEPRI Director, Craig Mason, is Professor of Education and Applied Quantitative Methods. Mason will oversee the project evaluation. A signed copy of a Memorandum of Understanding with terms and conditions and specific evaluation tasks planned for this project is on file at UMaine.

Administrative Assistant, Jane Dare, has worked at UMaine for five years and is qualified to manage UMaine systems for personnel and financial management.

Five Additional Research Faculty with a demonstrated interest in EL education and teaching training will be recruited to join the project. We will prioritize faculty from STEM education fields to participate on *Project Reach's* Research Team.

A **Doctoral student** will be recruited to join the project. The student will have demonstrated experience with EL teaching and scholarship and will outline a program of doctoral study consistent with the outlined goals and objectives of *Project Reach*.

(c) Quality of the Management Plan

(c) (1) Adequacy of the Management Plan to Achieve Objectives

The project's management plan addresses the core components outlined in Section (a). Here, we reference the numbered goals and objectives provided in Section (a) (1), which includes detailed annual targets for outlined goals, objectives, and outcomes. The

project's management plan will ensure that it attains major benchmarks on time and in accordance with the budget and indicates responsibilities, timelines, and milestones for accomplishing tasks, including a description of how and when the project will meet each objective. Table 3 outlines how objectives will be managed.

Table 3. Management Plan for Project Objectives (Note: please refer to Section (a))

Objectives	Activities	Responsible	Time Frames
1.1 – 1.9	Pre- & In-Service Teacher recruitment & training program; coursework; mentorship; lending library; ESL Praxis II exam support; workshops	Director, PI/Co-Director, LEAs	On-going, measured annually. Annual goal of 8 pre-service/yr. in 2-yr. cohorts, entering yrs. 1 – 4. Annually, 7 in-service/yr. Total over five yrs.: 32 pre-service & 35 in-service
2.1 – 2.2	Develop & deliver 3 new courses; deliver regular coursework; consult with LEAs and SEA on needs	Director, Research Team	8 courses offered/yr. 3 new courses developed (1 each in yrs. 2 – 4). Total: 40 courses over 5 yrs.
3.1 – 3.5	Build Research Team; review & align courses; develop & implement *ESL Teacher Impact Study*; develop new EL research	Director, PI/Co-Director, Research Team	3 core faculty and 1 new faculty Research Team member/yr. Review & align 5 existing courses in yrs. 1 – 2; hire doctoral student in yr. 2; produce articles

			(1/yr.) total of 5 over 5 yrs.
4.1 – 4.2	Establish data collection & management system to track ELs' graduation/ college entry rates; develop strategies for support ELs to graduate/ enter college; technical assistance to LEAs	Director, PI/Co-Director, Research Team, Doctoral Student, SEA	Yrs. 1 - 2: develop research protocol. Yrs. 3 – 5 work w/UMaine System and Community Colleges. Workshops on graduation/ college entry: 1 each in yrs. 2 & 4. Annually, 1 tech. report (5 over 5 yrs.) & annual LEA site visits
5.1 – 5.3	Develop & deliver seminars at UMaine; design new mainstream ESL course; develop & deliver workshops to LEAs; deliver 3-day institutes with SEA	Director, PI/Co-Director, Research Team, doctoral student, SEA	Annually, 2 seminars (10 over 5 yrs.); new course in yr. 1, offered in yrs. 2 & 4.; deliver 5 workshops annually to LEAs (25 over 5 yrs.); offer two 3-day workshops in yrs. 2 & 5.

The project will achieve its objectives on time, and, as detailed in the budget narrative, has adequate resources to support project objectives. UMaine has demonstrated strong fiscal and institutional commitment to this project by funding half of the doctoral student and the administrative assistant (AA). We briefly highlight some of the project's major accomplishments, while others are detailed throughout the proposal. Funding for program participants is based on the cohort structure of 2-year cohorts of 8

pre-service teachers entering the program in years 1 – 4, with years 1 and 5 having 8 pre-service participants, and years 2 – 4 having 16, as each cohort completes the program. For in-service teachers, the project will serve 7 teachers per year to complete ESL endorsement requirements and pass ESL Praxis II exam. The project's research and data collection efforts will transpire across all five years, culminating in a new tracking system for EL teachers and ELs' high school and college entry rates.

To ensure that the project can meet these ambitious, but attainable and important goals and objectives, the team will meet to track progress. Underscoring the project's efforts is a stable infrastructure designed to foster team collaboration and enable success. All project staff have office spaces together in the MCSPC. The director, PI/co-director, and AA will interact on a daily basis and formally hold weekly meetings to review accomplishments and discuss progress. The research team will meet monthly and remain in touch over email and phone. The doctoral student will be housed in the *Project Reach* office space to ensure collaboration and oversight. A project advisory board consisting of the SEA, LEA members, faculty, deans, and directors will meet each semester to provide insight into the project's activities and progress.

The director will oversee all components of the project to ensure strong progress on a day-to-day basis. Together with PI/co-director, she will ensure that university regulations and requirements are met and that the Research Team makes consistent progress toward meeting its goals and objectives. All project members will provide monthly written updates outlining their targeted tasks for that month, their progress toward achieving tasks, and outline tasks for the coming month. This ensures that the team and its co-directors are in continuous communication with each other.

(c) (2) Time Commitments are Appropriate and Adequate to Meet Objectives

Each position holds specific responsibilities as outlined below:

Title and Name	Time Commitment	Funding Source
Project Director	100%	OELA grant
PI/Co-Director	25%	OELA grant
Research Team	10% each	OELA grant
Outreach Coordinator	50%	OELA grant
Doctoral Student	50%	UMaine & OELA grant
Administrative Assistant	50%	UMaine

Please note that 50% is the maximum amount of time that doctoral students are allowed to work on projects, as to not interfere with their academic progress. The doctoral student will not have any other paid work responsibilities beyond this project. Some members of the team proposed in this application are currently involved in a Title III OELA grant that will end in July 2012. To ensure that both projects have adequate support, the current director of the older grant, Hoecherl-Alden, will assume 100% responsibility, while co-directors Chasse-Johndro and Lindenfeld will focus exclusively on the new grant. The project AA will work full time during the period of overlap, dedicating 50% of her time to each grant. Other personnel on this new project have no commitments to the older grant.

Project Director (Chasse-Johndro) will oversee and manage all project activities and assure objectives are met on time. She will meet weekly with project staff; implement UMaine and federal requirements regarding policies, procedures, budget issues, accountability and overall evaluation plan; serve as the project advocate within

the UMaine system; function as liaison between the SEA and the project; takes fiscal responsibility for the project; represent the project at university, state, regional, and national meetings and events; serve as point-of-contact for the project's evaluation team; and prepare project reports. She will oversee the selection of project participants and award stipends. She reports to the MCSPC Director and COEHD Dean.

PI and Co-Director (Lindenfeld) takes fiscal responsibility for the project together with the Director; directs research activities and oversees the doctoral student; and coordinates the Research Team together with Leahy. She will support and collaborate with the Director across project years. She reports to the MCSPC Director.

The **Research Team** (Chasse-Johndro, Lindenfeld, Leahy, and 5 additional faculty) manages the project's research efforts; reports research findings in articles and reports; reviews and aligns existing coursework with the standards and develop new ESL courses; presents at state, regional and national conferences; and serves as mentors to pre-service participants. Leahy will co-coordinate this team with Lindenfeld and will co-mentor the doctoral student with her. The Research Team reports to the Co-Directors.

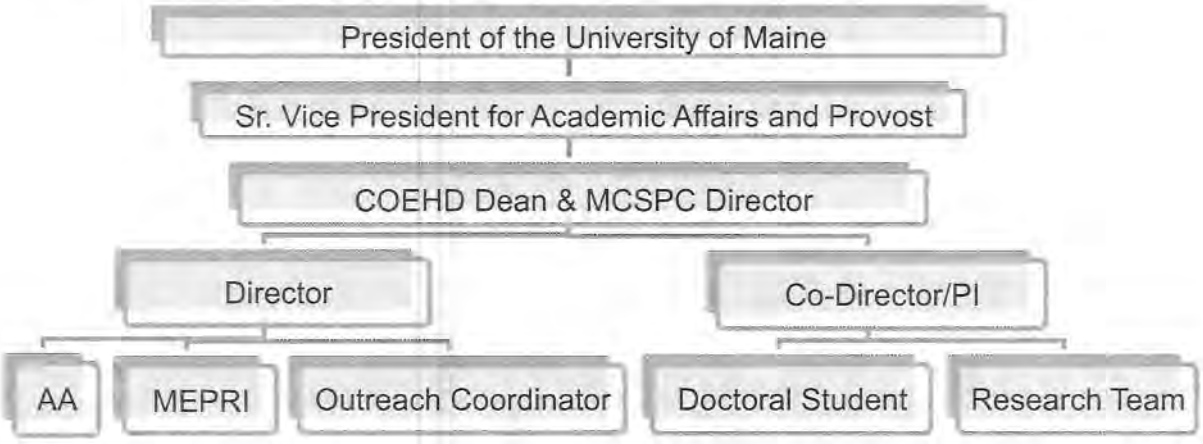
The **Doctoral Student** will undertake research on the intersections of STEM/ESL and collaborate with the Research Team to design and implement project research. This person (to be hired) will also help with outreach efforts by visiting LEAs to deliver workshops and provide technical assistance and will report to the Co-Directors.

Outreach Coordinator (MacDonald) represents the project to partner LEAs; determines the need for support and activities in districts; conducts site visits; provides outreach and technical assistance to LEAs; collaborates with the project staff to develop

workshops; represents the project at state and regional events and conferences; and disseminates information throughout the state. This position reports to the Director.

Administrative Assistant (Dare) provides support in administrative areas; manages the office; makes travel arrangements; schedules meetings; coordinates mailings; maintains the database; provides billing and bookkeeping services; works with the co-directors to implement university and federal requirements regarding policies, procedures, budget issues, and accountability. This position reports to the Director. The organizational chart (Figure 1) illustrates reporting responsibilities of project staff.

Figure 1. Project Reach Organizational Chart



(d) Quality of the Project Evaluation

The ***Maine Education Policy Research Institute*** will provide formative and summative feedback to *Project Reach*. MEPRI has unique access to ***student-level state educational data***, including state-wide assessment data and the Maine SLDS. MEPRI researchers involved with this project will oversee the development and maintenance of COEHD's SIS assessments and reporting tools. These two data systems (SLDS and SIS) play a central role in creating a **data-driven**, empirically based evaluation and training program, as outlined in the **ESL Teacher Impact Study**

(Objective 3.4). They will enable *Project Reach* to capitalize on project data collected and seamlessly link this information to extensive individual student-level academic data on K-12 students throughout Maine. MEPRI will evaluate the role and impact of pre- and in-service teacher education and training on EL outcomes in the classroom and will assess the four Core Components to ensure the project meets its goals, objectives, and outcomes. This rigorous evaluation process will serve as a national model.

(d) (1) Evaluation Methods are Thorough, Feasible, and Appropriate to the Project

The project's data-driven evaluation methods are thorough, feasible, and appropriate to project design. Project effectiveness will be examined through both quantitative and qualitative methods, specifically targeting the GPRA measures and project goals and objectives. Evaluation will assess the project's four core components as outlined below.

Table 4. Project Evaluation Methods Support Project Goals and Objectives

Component	Five-Year Outcomes	Evaluation Method
1. Comprehensive Teacher Training (Goal 1, Obj. 1.1-1.9)	**Pre-service teachers**: 32 (8 STEM) served, certified, & endorsed, 28 (7 STEM) placed **In-service teachers:** 35 (8 STEM) served, endorsed, & placed. See **targets** on pp. 2-3.	*Quantitative assessment:* SIS and assessment of teacher efficacy through SLDS (see Obj. 3.4), annual project surveys. *Qualitative assessment:* Review of teacher electronic portfolios; classroom observation; analysis of videotaped instruction of classroom practices; participant interviews.
2. EL Curriculum	3 new courses (2 on	*Quantitative:* Analysis of numeric

(Goal 2, Obj. 2.1-2.2; Goal 3, Obj. 3.2; Goal 4, Obj. 4.2; and Goal 5, Obj. 5.2)	EL/STEM and 1 on mainstreamed ELs) 40 courses delivered and aligned with CCSS & WIDA; and a new ESL Graduate Certificate.	course evaluations; content analysis of new syllabi to assess alignment with STEM/ESL, CCSS, WIDA. *Qualitative:* Review of syllabi; participant interviews; document analysis.
3. EL Research (Goal 3, Obj. 3.1-3.5 and Goal 4, Obj. 4.1-4.2)	5 articles; 5 tech. reports; 1 doctoral student; 10 conference presentations; 5 new project faculty; establish Teacher Impact Study; establish grad/college entry data collection & mgt. system.	*Quantitative:* Documentation of research articles, reports, & presentations (including impact factor analysis). *Qualitative:* Interviews and document analysis to assess development of Teacher Impact Study and College Entry data system.
4. EL Outreach (Goal 4, Obj. 4.2 and Goal 5, Obj. 5.1-5.3)	250 in-service teachers served via two 3-day Institutes; 25 statewide workshops; Lending Library; IHE support via 2 annual seminars.	*Quantitative:* SIS and assessment of teacher efficacy through SLDS, development of project-specific survey instruments. Analysis of numeric workshop evaluations; content analysis of workshops to assess alignment with STEM/ESL, CCSS, WIDA. *Qualitative:* Interviews with LEAs and participants.

The project's evaluation is rigorous and comprehensive. We provide key information on project evaluation outlined above that require further explanation.

- Through the **ESL Teacher Impact Study,** the **SIS** and **SLDS** enable comprehensive data collection and analysis of teachers and their impact on ELs.
- ***Electronic portfolio*** evaluation through COEHD's existing, flexible infrastructure enables tracking of pre- and in-service teacher development. Portfolios include submissions of material (papers, documents, video) in connection with key assessments conducted in ESL courses and transition points throughout teacher training phases. The project will modify the portfolio structure to include feedback from *Project Reach* faculty and will enable the longitudinal tracking of participants.
- ***Pre-Service teaching evaluations*** include evaluations of student teaching, school-based supervisor, and faculty supervisor evaluations.
- ***Annual surveys*:** An emailed assessment with a link to a web-based survey regarding current employment, self-evaluation, and evaluation of and feedback on their ESL teacher preparation. Surveys will be sent automatically to all participants.
- ***Follow-up classroom observations*** of pre- and in-service teachers will take place approximately one year post placement using a standardized protocol aimed at assessing teacher use of specific best practice skills covered in the ESL coursework.
- ***Follow-up teacher interviews*** of participants will take place annually to address barriers and facilitators to ESL instruction and corresponding ELs' academic growth.
- ***Interviews*** with project personnel, administrators at UMaine, LEAs, and SEAs will provide qualitative insights into the project's efficacy.

- ***Additional qualitative data*** housed in the SIS record will contain data regarding coursework and course outcomes specifically targeted to address state and national standards and proficiencies, which will also be used to assess the effectiveness and impact of specific courses and components of the project.
- ***Document analysis*** will provide quantitative and qualitative data, including analysis of institutional documents, such as the proposal for a new Graduate Certificate.

All project activities are **data-driven**. Data on pre- and in-service teacher progress and their impacts on ELs in the classroom will be collected and used to inform subsequent activities and directions, as will data collected on other components of the project. The evaluation component aims to utilize the data collected to inform practice, both by *Project Reach* staff, and by pre- and in-service teachers enrolled in the program who will teach in Maine's K-12 classrooms. As such, the project is designed to have iterative feedback loops that continually aim to improve and strengthen its efforts.

(d) (2) Evaluation Methods use Performance Measures and Produce Data

The project's methods of evaluation include the use of objective performance measures. Methods are designed to produce quantitative and qualitative data, which will result in analyses (delivered quarterly) and reports (delivered annually). Evaluation addresses the GPRA measures and the program goals, objectives, and activities detailed in Section (a). Evaluation designed to report on GPRA measures includes:

Target A.1 (Objective 1.1) and **Target B.1 (Objective 1.6)**: Analyses will use SIS data including: participant enrollment in ESL teacher training program, initiation of coursework, completion of required ESL coursework, date and progress through key transition points, tuition support, and graduation date. Analyses will also examine

participant GPA, ESL Praxis II exam scores, faculty evaluations of key assessments, additional ESL-specific assessments by both participants and faculty/instructors, and faculty/placement evaluations of student teaching (pre-service teachers).

Target A.2 (Objective 1.2) and **Target B.2 (Objective 1.7):** Analyses will use SIS data (see Targets A.1 and B.1), certification data, annual online surveys, and SLDS to monitor teacher certification. Teacher learning and use of best practice skills will be evaluated through annual classroom observations and interviews.

GPRA 1.1, Target A.5 (Objective 1.5) and GPRA 1.5, Target B.3 (Objective 1.8): Analyses will use SIS data and other certification data (see Target A.2, B.2), including annual follow-up classroom observations and interviews. Data on ESL endorsement will be obtained from the SLDS and the annual online surveys of program participants.

GPRA 1.2, Target A.3 (Objective 1.3); GPRA 1.3, Target A.4 (Objective 1.4); and **GPRA 1.6, Target B.4 (Objective 1.9):** Analyses uses SIS, certification, and ESL endorsement data (see Target A.5, B.3). Placement-related information for these project measures will also be included in the annual online follow-up surveys. Quality of teaching will also be examined through annual classroom observations and interviews.

All GPRA measures will be calculated several ways to provide the greatest breadth of information to project staff. They will be calculated based on pre- and in-service ***program completers*** with additional supplemental analyses based on ***all*** students who originally enrolled in a cohort, thereby taking into account any participants who may be delayed in the progress or who may have discontinued from the program. Supplemental analyses will calculate all GPRA measures based both on individual cohorts, and cumulatively across all cohorts up to that point in time.

(d) (3) Evaluation Methods Provide Feedback and Permit Periodic Assessment

Methods of evaluation will provide ongoing feedback to the project staff and are specifically designed to provide periodic assessment of progress toward achieving project's goals. The project evaluation plan provides for summative and formative evaluation. Ongoing evaluation will determine the project's effectiveness at meeting goals, objectives, and GPRA measures. Project developed instruments to assess workshops, ESL courses, site-visits, and other activities will provide regular, ongoing feedback to project staff as these events occur. The project's annual report and quarterly feedback from MEPRI will provide direction for continuous improvement of project outcomes. As previously noted, the goal is for all project activities to be **data-driven**. Consequently, capitalizing on the extensive information technology resources available, the co-directors and project staff will be given **quarterly updates** regarding progress on each target, goal, and objective. Additional program-specific reports and queries will be made within the SIS and SLDS will allow the co-directors to calculate, on demand, the current status for all measures based on quantitative data. MEPRI research staff will also be available to assist with more complicated statistical analyses. MEPRI will report on the project's progress toward accomplishment of GPRA measures, goals and objectives in the Annual Performance Reports, Complete Data Report and Final Performance Report. Additionally, the evaluator will monitor the project's progress with identified objectives and activities to assess its effectiveness and to provide measurable and descriptive feedback to the project's staff in a timely manner. Project staff will use this information to review project components and make changes to ensure maximum effectiveness of the university's professional development activities.