



INSPIRING MINDS THROUGH A PROFESSIONAL ALLIANCE OF COMMUNITY TEACHERS

Urban Teacher Residency Program



Center for
**POWERFUL
PUBLIC
SCHOOLS**

A catalyst for
equity, access
and choice

Teacher Quality Partnership Grants Program

Proposal Submitted to the US Department of Education,
Office of Innovation and Improvement

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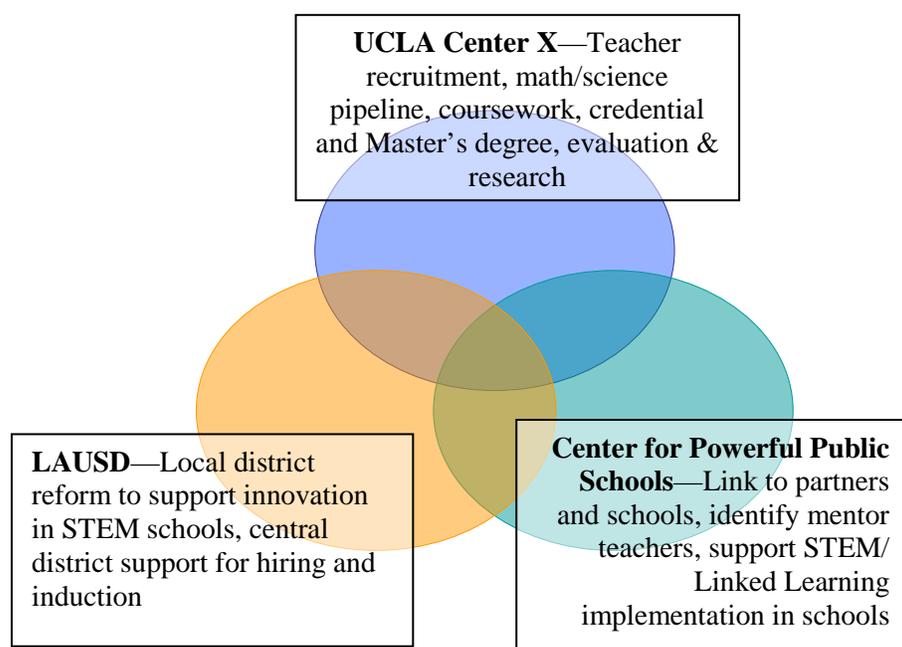
Supporting Documents

- Project Abstract
- Budget and Budget Narrative
- Competitive Preference Priorities and Invitational Priority
- Appendix A: Optional High Need Eligibility Charts
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Part One: Significance

1A. Improve and Expand Local Capacity: Reform Context and Partners--*Twenty years ago*, UCLA's Center X challenged the status quo of teacher preparation by establishing an experimental program that would recruit hundreds of diverse, high-achieving individuals and support them to work in Los Angeles Unified School District's (LAUSD's) hardest to staff urban schools. *Five years ago*, this experiment deepened with the launching of UCLA IMPACT—an innovative urban residency program that successfully prepared 155 math, science, and early childhood educators within a consortium of 32 high-need, yet innovative pre-K-12 small autonomous schools, supported by 109 exceptional mentor teachers. IMPACT teachers have higher than average retention rates, value-added scores, and have demonstrated their professional competency on several other measures; including a 95% first-time pass rate on the edTPA which measures each candidate's ability to teach his/her subject matter to all students, and 100% pass rate on the California Subject Examination for Teachers which measures subject matter competence. *Now*, the partnership is poised to build on its initial success with a second phase of work that will improve and expand the IMPACT program to prepare 96 new STEM teachers in an enhanced residency program that situates learning in 18 STEM-focused elementary and secondary schools within high-need LAUSD communities. This second phase of proposed work is a multi-level reform that will: (1) improve college and career readiness of traditionally underserved students; (2) respond to the local need and national 100Kin10 call to recruit, prepare, and retain highly-effective STEM teachers; (3) advance school and district-level Linked Learning/STEM reforms with a particular focus on mentor teacher support; (4) deepen STEM and STEAM partnerships to support teacher and student learning; and (5) promote continuing innovation in teacher preparation and program sustainability.

The UCLA IMPACT Program was developed by a trio of partners: **UCLA Center X**, which houses UCLA’s teacher education program and several other professional learning projects—all focused on transforming public schooling to create a more just, equitable, and humane society; **Los Angeles Unified School District**, the second largest school district in the nation; and the **Center for Powerful Public Schools**, (formerly known as LA Small Schools Center) an educational nonprofit organization that builds the capacity of educators to create and sustain powerful public schools that prepare students for college, career and life. Together, these organizations are committed to leading a second phase of the IMPACT program with STEM/Linked Learning schools and mentors, as well as partners such as NASA and Inner-City Arts that will substantially deepen and extend teacher and student learning of STEM. *(See Budget Narrative for funds integration info)*



1B. Create Systemic Change—UCLA IMPACT is a local, grassroots program. Its leaders have lived, worked and fought for educational equity in Los Angeles for many years. As

evidenced by letters of support (Appendix G), Phase 2 of the program has the support of leaders from the schools, community, all levels of the district, local businesses, media, government, school board, and the university. IMPACT's trio of partners have extensive track records of working within the educational system to effect change on many levels, including the teaching workforce, community organizing for new schools, and a re-envisioning of industry-focused college and career/technical education called "Linked Learning." This foundation will help ensure that Phase 2 of the IMPACT program will create systemic change.

UCLA's Center X has prepared thousands of highly qualified teachers to be change agents within hard to staff schools. As change agents, Center X graduates, students, and faculty have joined forces with the Center for Powerful Public Schools, community-based organizations, teachers unions, and other educators in and outside the system to effect significant change (Oakes and Rogers, 2006). For example, the history of the Belmont Zone of Choice (Martinez and Quartz, 2012) is a story of community organizing that began in the 1980s with a fight for new school facilities within central Los Angeles. The Belmont Education Collaborative and its lead organizations—along with hundreds of parents and students—worked tirelessly to advocate for the new schools' completion. Joining forces with K-12 and university-based educators strengthened this community-led movement for new schools and sparked a small schools movement across Los Angeles—including the 2009 opening of the UCLA Community School and five other small autonomous Pilot schools in the Robert F. Kennedy Community Schools complex. Many of these small schools served as Phase 1 IMPACT schools because they were exemplary sites of teaching practice and student learning. Phase 2 schools will overlap with this set of small schools but also expand to include new STEM-themed and Linked Learning schools.

In 2010, the Center for Powerful Public Schools became the first regional Linked

Learning Center, leading the design and implementation of Linked Learning pathway programs for schools in districts throughout Southern California. In partnership with the Center, LAUSD developed four cohorts of Linked Learning high schools that are committed to preparing students for college and career success by transforming students' schooling experience through rigorous academics, demanding career and technical education, real-world work-based learning and student support services. Linked Learning certification is tied to Common Core standards for college and career readiness. These standards will be integrated into Phase 2 of the IMPACT program. Almost half of LAUSD's 36 Linked Learning schools are focused on STEM education and careers in medical science, biotechnology, engineering, environmental science and technology. Additionally, the number of STEM pathways has grown, thanks to recent grants to LAUSD from the K-14 California Career Pathway Trust (\$15M), the US Department of Labor Youth CareerConnect grants (\$7M) and the continued support of the James Irvine Foundation. This support and momentum is evidence that STEM/Linked Learning reform is effecting systemic change in Los Angeles and will significantly enhanced Phase 2 of IMPACT.

1C. Prepare Teachers in High-Need Areas—As the Linked Learning pathways are scaled, increased demand for highly-qualified STEM/Linked Learning teachers will be addressed by Phase 2 of the IMPACT program. IMPACT candidates will be placed within STEM elementary and secondary schools, learning alongside mentor teachers, holding themselves accountable to the high expectations for student achievement and competencies within the college and career readiness framework. This need to staff STEM/Linked Learning schools in LAUSD is echoed state and nationwide. Statewide, 25% to 35% of California's science and mathematics teachers either have no credentials or are not qualified. The State has a shortage of more than 2,000 mathematics teachers, 1,000 life science teachers, and 1,000 physical science teachers and

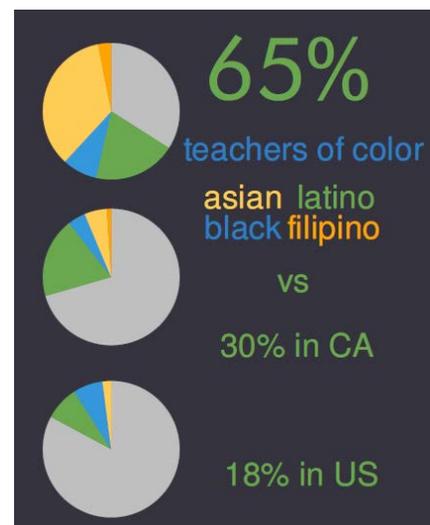
projections indicate that more than 30% of California’s teacher workforce will be eligible to retire in the next decade (University of California Science and Math Initiative, 2008). California also has the nation’s highest percentage of public school students scoring below basic and the lowest percentage of public school students scoring proficient on the NAEP science assessment (NCES, 2011). Rigorous science instruction in elementary school is one approach to supporting students’ academic success in middle grades and beyond. Recently, many LAUSD elementary schools have become STEM magnets yet elementary teachers often report low self-efficacy and expertise in teaching science at the elementary level (Lee & Houseal, 2003; Tosun, 2000).

Working with the UCLA Science and Math Initiative, UCLA IMPACT will prepare 48 high-qualified elementary teachers with an emphasis in STEM and 48 highly qualified STEM secondary teachers within four years. This will help UCLA meet its commitment to the 100Kin10 Initiative to recruit and prepare the next generation of STEM teachers.

In addition, the IMPACT program will continue to develop teachers to be skilled in addressing the needs of limited English proficient students, students with disabilities, and historically underserved and culturally diverse students. As summarized in Attachment A, Phase 2 IMPACT Consortium of Schools high student need on poverty, language and disability indicators.

Preparing teachers for innovative teaching and learning in this context will further the multi-level reform agenda listed in Part 1A. Recruitment efforts will target teachers of color who enter the program with cultural competence needed to succeed in these contexts.

During Phase 1, 65% of IMPACT graduates were teachers of



color compared with 30% across California (CDE, 2011-2012), and 18% nationally (NCES, 2011-2012). As a program, IMPACT is committed to recruiting teachers of color and placing them in schools with culturally diverse student populations. In addition to district, teacher and student needs, each partner has assessed its needs regarding ongoing training, professional development and educator retention (*see Narrative Attachment B: Partner Needs Assessments*).

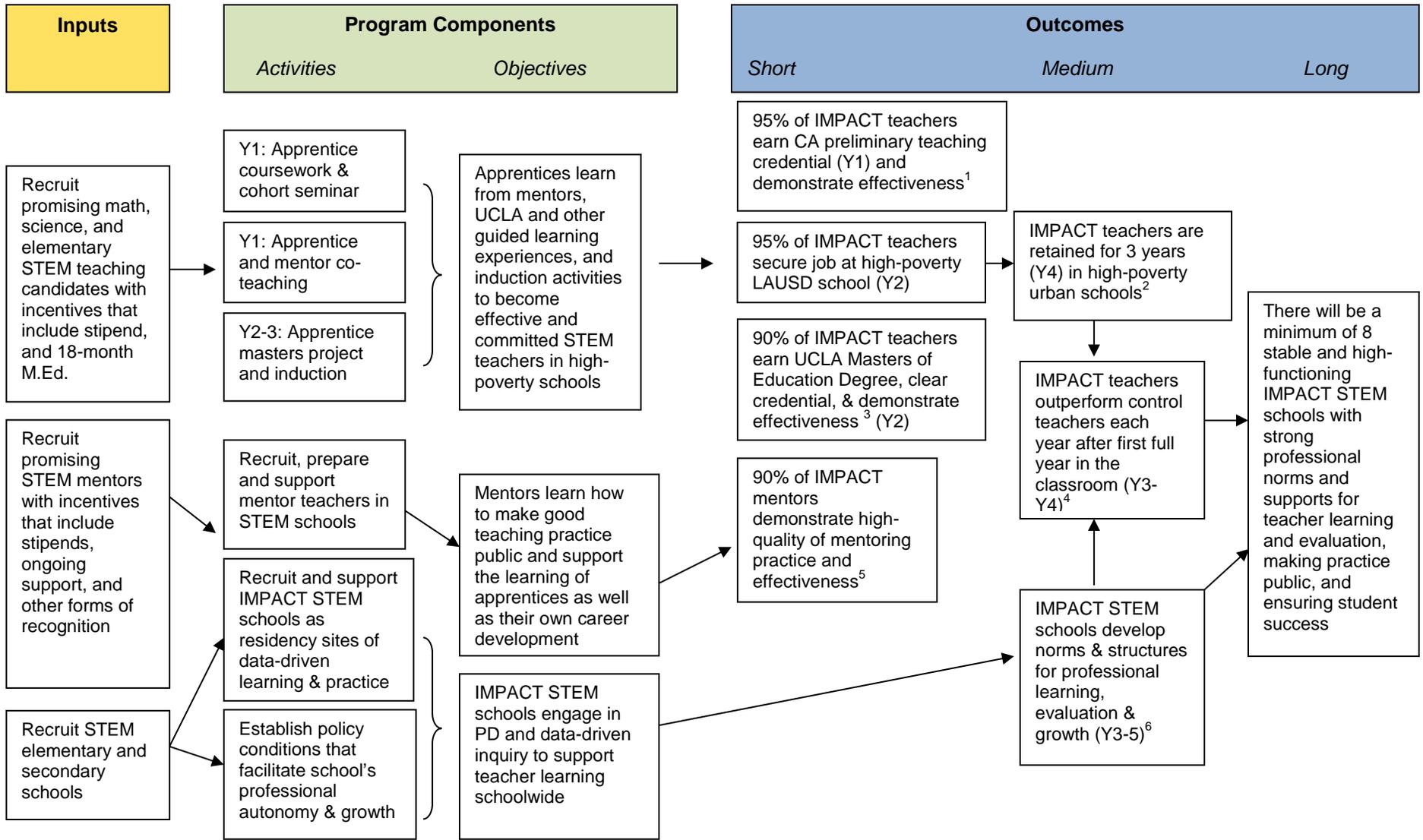
Part Two: Project Design

2A. Strong Theory and Program Logic Model—As defined in the Federal Register, a *strong theory* is “a rationale for the proposed process, product, strategy, or practice that includes a logic model.” The proposed continuation of the IMPACT program is based on the rationale established in Phase 1 and captured in its acronym: *IMPACT: Inspiring Minds through a Professional Alliance of Community Teachers*. Our theory of change states that the work of transforming public schools to create a more just, equitable, and humane society depends on the quality, professionalism, and stability of the educational workforce in high-poverty, urban communities. The levers we use to spur change and ensure this high-quality, professional, stable workforce are threefold: (1) firmly embed teacher learning and development in the context of urban schools and communities, (2) recruit and prepare a diverse local workforce of social justice educators for urban schools, and, (3) support the continual learning and career development of educators working to make a difference. These three related activities are based on a set of beliefs and values about teacher learning as well as about social justice, that guides our work as we strive to align a humanizing teacher education program with K-12 academic achievement standards, state and national content standards, and the California Commission on Teacher Credentialing Teacher Performance Expectations (pre-service) and California Standards for the Teaching Profession (in-service).

The IMPACT program engages apprentice and mentor teachers using a variety of theories with the intention of problematizing commonly accepted beliefs and practices surrounding ability, race, class, gender, language, difference, etc. (Olsen, 2005). Ideas and readings from related domains informed the creation of IMPACT and Center X and still guide its practice: multiculturalism (Banks, 1994; Darder, 1998; Nieto, 1999), critical pedagogy (Freire, 1970; Giroux, 1992; hooks, 1994; McLaren, 1997), culturally responsive teaching (Cochran-Smith, 1997; Ladson-Billings, 1994; Oakes & Lipton, 1999), second language acquisition (Cummins, 1996, 2000), and community organizing (Oakes & Rogers, 2006). Following the growing body of sociocultural research on learning, IMPACT maintains that its students learn as much, perhaps more, through enculturation into a critical, theory-rich, learning environment as they do through explicit instruction in teaching skills and techniques (Putnam & Borko, 2000).

This approach to teacher learning and educational change is mapped out in the logic model below. IMPACT works on three integrated levels—apprentice teacher, mentor teacher, and school site—to firmly embed teacher learning and development in the context of urban schools and communities and support teacher development over time. This context, along with clear and measurable program activities and outcomes, have successfully guided the first phase of IMPACT.

UCLA IMPACT Phase 2 Logic Model



Project Measures

1. IMPACT teachers will demonstrate effectiveness based on multiple measures, including edTPA, observation ratings, and instructional logs
2. Teacher retention rates of IMPACT teachers will exceed by 5% those of a propensity-score matched comparison group of first-time LAUSD teachers
3. 80% of IMPACT teachers will achieve an average score of 3 on the Instructional Quality Assessment
4. Academic growth over time (on common strands of Smarter Balanced Assessments) of IMPACT teachers will exceed a propensity-score matched comparison group of first-time teachers in LAUSD
5. Multiple measures of mentor effectiveness, including logs of mentoring practice, feedback quality measure, and faculty evaluations
6. Qualitative data related to program implementation and professional learning cultures of schools; analyzed using a rubric to capture outcomes

2B. Teacher Preparation Linked to Improved Practice—Throughout the past five years, UCLA IMPACT has held itself to high accountability standards using a multiple measures approach to assess the teaching quality of its graduates--thereby collecting evidence on the link between teacher preparation and improved practice. While researchers have documented higher retention rates for graduates of teacher residency programs, there is scant evidence of whether and how these retained teachers are more effective than teachers prepared through different routes (Carnegie Foundation for the Advancement of Teaching, 2014). To help address this gap, Phase 1 of IMPACT laid the methodological groundwork for a rigorous and formative approach to measuring teaching quality that is sensitive to both the credentialing context of teacher education as well as the professional evaluation context of districts and schools.

In a teacher education context, multiple measures are becoming increasingly important indicators for understanding the effects of pre-service preparation, especially with the national accreditation standards established by the Council for the Accreditation of Educator Program. These new standards require teacher education programs to collect P-12 student outcome data along with measures of teaching practice. Meanwhile, schools and districts are inventing complex multiple measures systems to guide professional evaluation and advancement. Underlying both of these efforts are important assumptions about why, what, and how to measure. And once assembled, there is another set of considerations about whether and how to combine multiple measures to make judgments and inform practice. Teacher residency programs are an ideal context for exploring these measurement assumptions and considerations because they foreground teacher learning in the context of extended clinical school placements.

IMPACT's Phase 1 multiple measures approach began with a careful articulation of the program's definition of good teaching practice. Four dimensions—content rigor, equitable

access to content, content discourse, and classroom ecology—were chosen and developed into an observation rubric that guided data collection and formative assessment of IMPACT apprentices. A generalizability study of this rubric is currently underway and its results will inform how the tool is used in Phase 2 of the program. Aligned with this rubric, Phase 1 IMPACT teachers also collected (using mobile technologies) and used (in their methods and seminar courses) data on how frequently they used high-leverage, research-based instructional strategies. The program also relied on portfolio and artifact measures of teaching practice, including the Performance Assessment for California Teachers (PACT) (Pecheone & Chang, 2006) and the Instructional Quality Assessment (Matsumura, Slater, Junker, Peterson, Boston, Steele, & Resnick, 2006). Additional measures included value-added test score data from the district, mentor ratings, and pilot measures to capture apprentice’s pedagogical content knowledge.

These measures were used in combination for both formative and summative purposes. The infographic on the next two pages visualizes how IMPACT used the measures to learn. On a program level, the measures were combined by assigning proficiency levels for each dimension, for example, how often IMPACT expected apprentices to use content discourse strategies as measured by the instructional log. Looking across measures and dimensions gave the program leaders robust evidence to inform continual improvements and track progress. On an individual level, apprentices received feedback and scores on each measure and were supported to use this feedback to strengthen their practice. The primary summative use of the multiple measures data was accountability to the State and US Department of Education regarding program quality. For example, scores on the Instructional Quality Assessment were used to help gauge effectiveness in a teacher’s first year of teaching (see logic model, p. 10).

the impact of IMPACT

UCLA IMPACT

INSPIRING MINDS THROUGH A PROFESSIONAL ALLIANCE OF COMMUNITY TEACHERS



combines the best of traditional and alternative teacher education

apprentices learn alongside accomplished mentors in innovative urban schools

university coursework and faculty support deepen field-based learning

using data to learn

in high-need fields:



math



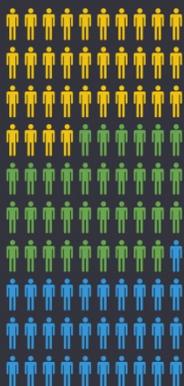
science



early childhood

by the numbers

155 new teachers



109 mentors

32 schools/ ece centers



65%

teachers of color

asian latino
black filipino

vs

30% in CA

18% in US

math science ece/elem

4 cohorts (in May 2014): C1-year 3, C2-year 2, C3-year 1, C4-res yr

standard measures

100%

highly-qualified as measured by passing the PACT assessment

87%

cohort 1 teachers retained for 3 years

100%

cohorts 1 & 2 math and science teachers in LAUSD met or exceeded value-added targets

87%

cohorts 1-4 working in high-need school in 2014



let's dig deeper



step one

define good teaching

step two

use multiple & good measures



rigor



discourse



equity



ecology



observations



logs



surveys



artifacts

step three

LEARN

use small data on the quality and complexity of everyday teaching to learn and improve practice

how do teachers use data to strengthen their practice?

how does UCLA use data to strengthen its teacher education program?

1. By focusing attention on the four dimensions of good teaching during data collection.
2. By analyzing and reflecting on performance data across time, measures, and dimensions.
3. By discussing what the data mean and planning actions to improve practice.
4. By taking action and continuing the cycle of inquiry.



PROGRAM EXAMPLE

using data to learn about content discourse

math & science cohorts 1-3



observations



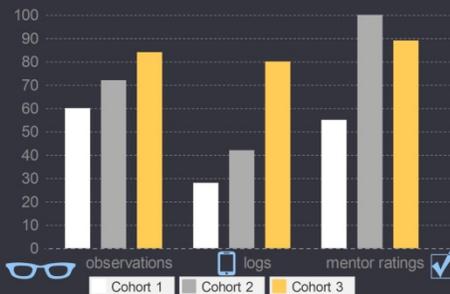
logs



surveys



change in proficiency on multiple measures



2010

TEP focus on teaching residents theory and practice about promoting content discourse in classrooms

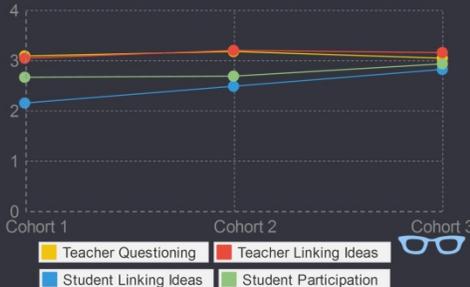
UCLA dissertation study of math apprentices' use of content discourse strategies using log and observation data--findings: difficult in practice, especially student-to-student interaction

2011

Explicit focus in methods coursework for C2 on 8 high leverage strategies to promote content discourse; opportunities to practice strategies in methods class

TEP analysis and discussion of observation, log, and mentor rating data to understand progress and areas for growth

change in performance on discourse subdimensions



2012

Creation of Methods with Mentors course for C3 to better align contexts for learning content discourse strategies

2013

C3 apprentices gather log data on their use of content discourse strategies as part of methods coursework; formative data analysis and discussion in class.

2014

Further analysis demonstrates steady growth in apprentices use of content discourse strategies--in particular the student-to-student interactions

TEACHER EXAMPLE

using data to learn about equitable access to content



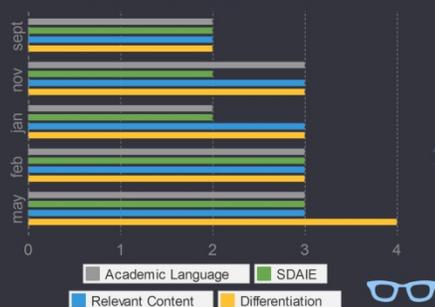
observations



artifacts



resident year change in performance on equity subdimensions



2.7/4 average score on 4 equitable access sub-dimensions across 5 observations

first year teaching performance on CRESST Instructional Quality Assessment (IQA)

3.5/4 average score on four equitable access sub-dimensions

4/4 score on differentiation sub-dimension

IQA artifact

- student assignment
- context data
- reading materials
- instructional strategies
- lesson plans & rubrics
- student work

The teacher engaged in equitable teaching by differentiating instruction to ensure the needs of all learners are met:

The work is well-structured to build on prior knowledge at a range of proficiency levels.

The instruction and assignment addresses learning through several modalities to accommodate different learning styles



NEXT STEPS

Support teachers to access and use small data using mobile technologies to improve practice.

Continue to collect and use multiple measures of good teaching to improve TEP.

Advocate for multiple measures in teacher preparation to advance learning and social justice.

Phase 2 of IMPACT will build on this methodological foundation and use data from five high-quality measures—IMPACT Observation Rubric, CRESST Instructional Quality Assessment, the edTPA (Teacher Performance Assessment), instructional logs, and mentor ratings—for formative and summative purposes. In addition, as detailed in the Evaluation Section below, evidence of K-12 student learning will be collected based on an innovative value added model using Smarter Balanced Assessment data that are aligned with the internationally benchmarked College and Career Readiness Standards described below. In these ways, Phase 2 of the program will be a significant enhancement—contributing to the knowledge base about how teacher residency programs are linked to improved practice as well as student achievement.

IMPACT’s first phase established the infrastructure required to collect and use data as a routine of practice within the UCLA Teacher Education Program. Data systems and protocols are in place to continue this effort, in partnership with UCLA’s National Center for Evaluation, Standards, and Student Testing (CRESST). This partnership was vital to the success of Phase 1 and supported teacher educators working with measurement experts, statisticians, and evaluation experts to develop a validated observation tool, longitudinal surveys of apprentices and mentors, instructional logs, and an adaptation of the research-based Instructional Quality Assessment. The partnership between Center X and CRESST was a notable success of Phase 1 and helped develop internal capacity in the Teacher Education Program to collect and use multiple measures of teaching quality for formative and summative purposes. In Phase 2, the CRESST/Center X partnership will continue and deepen with a focus on studying school-level effects of residency programs in addition to apprentice and mentor level outcomes.

2C. Coherent and Sustained Program of Training—IMPACT’s first phase of work challenged long-standing norms in the Center X Teacher Education Program about the role of

guiding/mentor teachers in a novice teacher's development. Center X's practice of placing teachers in hard-to-staff schools had, in some cases, left candidates without an exemplary field-based learning context. Moreover, placements were protracted, lasting only 10-15 weeks. IMPACT addressed this shortcoming by grounding candidates' learning in innovative pedagogical contexts from the first day of school through the last. This co-teaching model proved enormously successful in establishing the professional identity of apprentice teachers and authentically engaging them in the life of a school. In these contexts and in their coursework, IMPACT apprentices learned how to integrate theory and practice; for example, learning about language acquisition and students linguistic repertoires of practice at UCLA was directly connected with lesson planning, learning experiences, and mentor support for teaching English Learners in the residency context. This integration of theory and practice is the hallmark of residency programs. Phase 1 of IMPACT helped UCLA's Teacher Education Program make significant changes to the length of fieldwork, the role of mentors, and the selection of schools. For Phase 2, the program is poised to extend and deepen this progress with its STEM focus.

Table 1 below summarizes the defining programmatic elements of the original Center X Teacher Education Program, Phase 1 of IMPACT, and the proposed Phase 2 scope of work. The highlighted Phase 2 changes are strategic and will allow the program to delve more deeply into the knowledge, skills, and dispositions needed to become an exceptional STEM teacher, both at the elementary and secondary level. By focusing residency placements exclusively in schools with STEM themes or expertise, Phase 2 apprentices and mentors will be supported to advance innovative project-based learning, more relevant teaching and learning, 21st century skills, interdisciplinary projects, and real-world applications—all supported by the statewide Linked Learning Initiative. Other important changes include an increase in the apprentice stipends to

reflect increases in UCLA tuition, an increase in team size from 12 to 16 students to ensure the program is sustainable with State funding, and an increase in mentor stipend and leadership opportunities to remain competitive within the Los Angeles area.

Table 1: Comparison of IMPACT Phase 1 and 2 versus Traditional Center X Program

UCLA Center X Teacher Education Program	UCLA IMPACT Urban Teacher Residency Program: Phase 1 (2009-2014)	UCLA IMPACT Urban Teacher Residency Program: Phase 2 (2014-2019)
2 years	18 months + additional 24 months of support	18 months + additional 24 months of induction support
Targeted annual recruitment of 180 high-achieving, diverse teaching candidates committed to social justice	Targeted annual recruitment of 60 high-achieving, diverse teaching candidates in high-need areas (math, science, K-12 special education, early childhood education) committed to social justice	Targeted annual recruitment of 32 high-achieving, diverse teaching candidates in the high-need areas of elementary and secondary STEM, committed to social justice
Candidate selection criteria: minimum 3.0 GPA, UG degree in subject area or related field, CBEST, CSET, social justice statement, interview	Candidate selection criteria: minimum 3.0 GPA, UG degree in subject area or related field, CBEST, CSET, social justice statement, interview	Candidate selection criteria: minimum 3.0 GPA, UG degree in subject area or related field, CBEST, CSET, social justice statement, interview
UCLA undergraduate and graduate pipeline programs for prospective math and science teachers	UCLA graduate pipeline program for prospective math and science teachers	UCLA graduate pipeline program for prospective math and science teachers
\$20,000 tuition, offset by \$11,000-19,000 APLE loan that is paid off after three years of urban teaching service	\$20,000 tuition, offset by \$11,000-19,000 APLE loan paid off after 3 years urban teaching service + \$10,000 UTR stipend + opportunity to rent low-cost housing	\$25,000 tuition, potentially offset by \$11,000-19,000 APLE loan that is paid off after three years of urban teaching service + \$20,000 UTR stipend
Begins in the fall	Begins in the summer, with foundational coursework needed for residency	Begins in the summer, with foundational coursework needed for residency
Cohort-based teams of 15-20 teachers and UCLA faculty advisor	Cohort-based teams of 12 teachers and UCLA faculty advisor	Cohort-based teams of 16 teachers and UCLA faculty advisor
First year of full-time	First year of full-time residency	First year of full-time residency

coursework + short-term student teaching placement	+ adapted coursework	+ adapted coursework
Placements in high-need urban schools across four local districts	Placements in <i>innovative</i> high-need urban schools across a consortium of three school clusters within one local district	Placements in <i>innovative STEM-focused elementary and secondary high-need urban schools</i>
Guiding teacher application includes: paper survey, recommendation by site supervisor, classroom observation by faculty advisor	Mentor teacher application process includes: paper application, recommendation by site supervisor and UCLA network, rubric-based classroom observation, small group analysis of novice teaching video and small group discussion about quality feedback (scaled rating)	Mentor teacher application process includes: paper application, recommendation by site supervisor and UCLA network, rubric-based classroom observation, small group analysis of novice teaching video and small group discussion about quality feedback (scaled rating)
Guiding teachers support student teaching yet receive minimal training and stipend	Lead teachers support learning in residency and receive UCLA training, follow up support, stipend and certification	Mentor teachers support learning in residency and receive UCLA training, follow up support, increased stipend and opportunities for leadership
CA teaching credential earned at the end of first year—based on innovative statewide PACT (Performance Assessment for California Teachers)	CA teaching credential earned at the end of first year—based on innovative statewide PACT (Performance Assessment for California Teachers)	CA teaching credential earned at the end of first year—based on innovative statewide EdTPA (performance assessment)
Support for full-time job placements in high-need urban schools	Support for full-time job placements in <i>innovative</i> high-need urban schools—including LAUSD agreement to hire at least 25 teachers per year	Support for full-time job placements in <i>innovative</i> Linked Learning and other high-need urban schools— including LAUSD agreement to hire all IMPACT residents
Second year as full-time teacher of record + year-long coursework and Master’s Project	Second year as full-time teacher of record + summer/fall coursework and Master’s Project	Second year as full-time teacher of record + summer/fall coursework and Master’s Project
UCLA Master’s of Education degree earned at the end of the second year (June of Year Two)	UCLA Master’s of Education degree earned after 18 months (December of Year Two)	UCLA Master’s of Education degree earned after 18 months (December of Year Two)
Informal alumni networks	Formal two year induction	Staged two year induction

to support learning, development and retention over time	program to support learning, development and retention over time	program to support learning, development and retention over time (year 1=clear; year 2=network)
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2C.1 The Residency Year: Looking inside the resident year, Table 2 describes the integrated learning opportunities that initiate IMPACT’s coherent and sustained program of training.

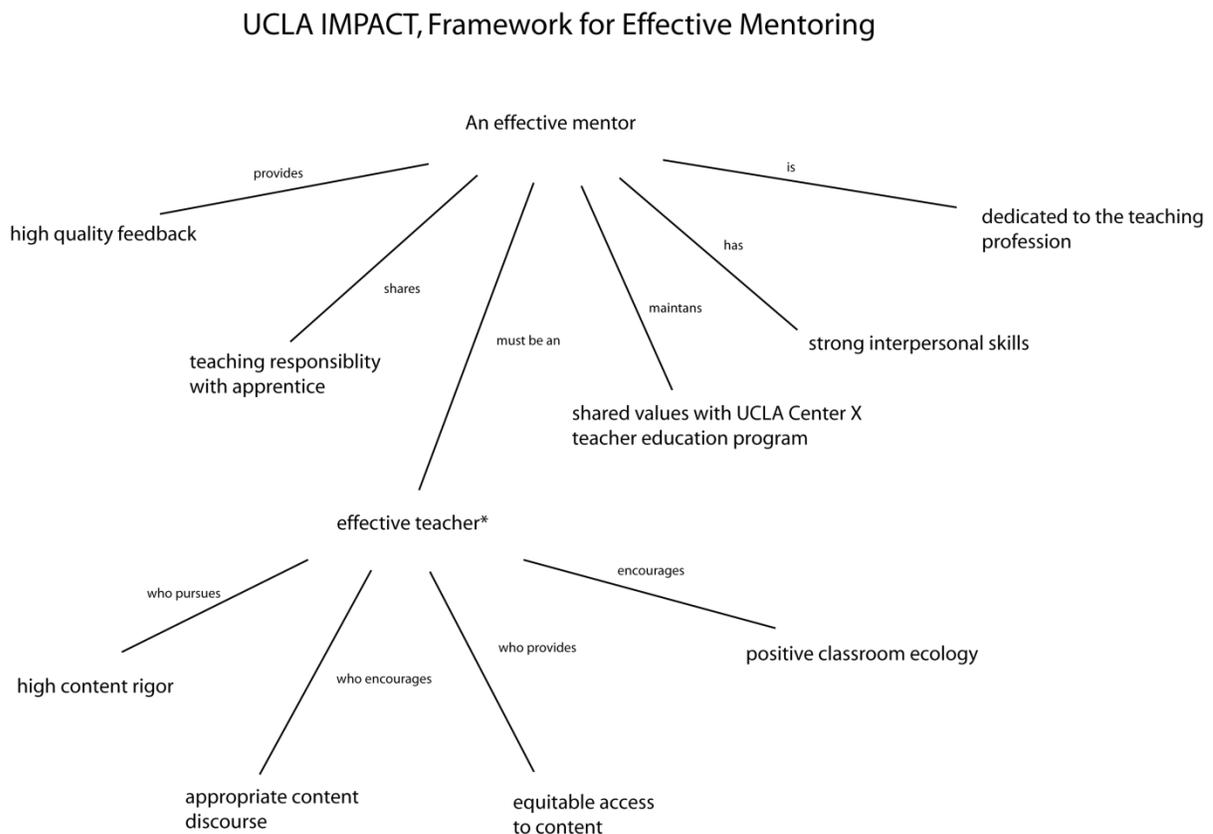
Table 2: Year One Integrated Learning Opportunities

Summer Quarter	Fall Quarter	Winter Quarter	Spring Quarter
Full-time foundational coursework	Coursework that is adapted from the State-approved sequence developed by UCLA’s Teacher Education Program		
Content team building	After school team seminars with UCLA faculty advisor to integrate theory and practice within a supportive community of practice	Team seminars focus on supporting candidates to complete the edTPA (Teacher Performance Assessment)	
Matching UTR candidates and mentors	Candidates work alongside mentors in the classroom from Monday to Friday; focus on innovative instructional methods, balanced literacy, classroom management, integrating theory and practice	Gradual release of responsibility by mentor to allow candidate to design, teach, videotape and reflect upon units as required by the edTPA. Candidates supported to find a job placement for upcoming school year	

Phase 1 of IMPACT was especially formative in defining the role of mentor teachers in apprentice learning. Although mentors are widely recognized as important to new teacher development, there is little research on what defines high-quality mentoring practice or how to support the learning of mentors. Responding to the need for an effective model for preparing mentors to be facilitators of adult learning (Tomlinson, Hobson, & Malderez, 2010), IMPACT developed a framework for mentoring quality and piloted an initial set of multiple measures to capture this quality for both formative and summative purposes (Francois, Quartz, & Kawasaki, 2013). As Figure 1 describes, this framework includes effective teaching (defined by the four dimensions of good teaching described above), but extends to other dimensions that emerged from a qualitative study of IMPACT mentors. This framework proved to be very useful in

structuring mentor professional development and support. For example, the cognitive coaching model (Costa & Garmston, 1994) was used to help mentors reflect upon the different types of feedback and questioning they were providing to their apprentices. This reflection was aided by a data analysis activity that coded mentor feedback and provided strategies for improving the quality of feedback that is linked to teacher learning (e.g., mediative questioning.)

Figure 1: Five Dimensions of Mentoring Quality



*measured by artifacts, assessments, and benchmarks determined within the UCLA IMPACT program

2C.2: Supporting Mentoring Quality: IMPACT’s first phase produced a number of effective structures and norms for recruiting mentors and supporting their central role as field-based teacher educators. In 2010, the first cohort of IMPACT mentors was recruited from a set of partnership urban schools based on principal recommendations and UCLA’s alumni networks.

Since then the pool of IMPACT mentors has grown, gained experience, and developed in their mentoring practice— supported by the program which has provided professional development and learning opportunities in the forms of: monthly mentor forums and “Methods with Mentors,” cognitive coaching seminars, teacher leadership programs, and teaching release time. In Phase 2, IMPACT is poised to fully develop effective mentoring practices in order to frame future mentor recruitment, selection, support, and evaluation efforts.

Building on what worked in the first phase to enhance teacher leadership capacity, Phase 2 will support mentor teachers through two pathways: (1) Teacher Leadership Certificate [10 months], and (2) Preliminary Administrative Credential and Master of Education [14 months] through the UCLA Principal Leadership Institute. For Phase 2, 32 mentor teachers will co-teach with apprentices to support learning in residency. Just as the novice teachers require support to be successful in their new career, the same is true for teachers throughout their career. Throughout IMPACT Phase 2, mentor teachers will participate in Center X professional development, coaching, and opportunities for leadership.

In the first phase of IMPACT, mentors were selected based on their teacher leadership expertise and successful record of teaching of at least three years. They demonstrated expertise in content knowledge, instructional practice, student learning, test analysis, professional learning, mentoring, and leadership. In addition, they had a record of increased student achievement through specific instructional interventions validated by student data. They demonstrated excellent communication skills and understandings of teacher development in urban schools. The mentor selection process will be enhanced during Phase 2 by submission of a 20-minute STEM/STEAM content lesson video or a post-observation conference with a peer or mentee.

Teacher leaders have mentored many student teachers and first year teachers, but rarely

have been asked to share their authority in the classroom to co-teach with a novice teacher. The residency model proposes a partnership whereby the apprentice and the mentor teacher teach, grow and learn together. This co-teaching model blossomed in IMPACT's first phase.

For Phase 2 of the IMPACT grant, mentor teachers will continue to deepen the relational practice of co-teaching. Mentor teachers will have opportunities to nourish their understandings of adult learning theory (Ball & Cohen, 1999; Borko, 2004) and put into practice the principles of project-based learning, interdisciplinary units, the feedback and reflection cycle, differentiation based on student needs and universal access to STEM and STEAM curricula.

To enhance Phase 1, the second phase of IMPACT will focus on one of the most important principles associated with adult learning theory: self-selected professional development. Two pathways will be provided for the mentor teachers through the Center X Principal Leadership Institute. The first option will enable the mentors to earn a UCLA Center X Teacher Leadership Certificate. The second pathway will offer the mentors an opportunity to earn a UCLA Master of Education and a Preliminary Administrative Services Credential. Both programs will be tailored to meet the needs of mentors serving in a residency model.

For the Teacher Leadership Certificate, the curriculum will be created using problems of practice in the field. Mentor teachers will have the opportunity select areas that are challenging in their leadership development and residency co-teaching model. For instance, they may choose to hone their skills in developing effective pedagogical strategies in the implementation the Next Generation Science Standards (NGSS) and the Common Core State Standards (CCSS). Although IMPACT Phase 1 emphasized the new standards and the content methods needed to ensure that students have full access to the rigorous learning required by those standards, this is an enormous task that involves a steep learning curve for every PK-12 institution across the country.

Mentors, in cohorts of six, will have opportunities to discuss problems of practice with mentor colleagues through synchronous, real-time online seminar groups that meet monthly facilitated by a seminar leader and/or one of the teacher leaders in the cohorts. Mentors will select from a range of topics emerging from their work with their co-teachers—apprentices—in the field. Coaching, feedback processes, assessment practices, and the edTPA were prominent in the first cycle. In the second phase of the program, those focus areas continue to be critical for a successful co-teaching partnership, but additional themes will be pursued as teams tackle new standards, assessment tools, literacy within the context of CCSS, and the Los Angeles Unified School District’s (LAUSD) focus on parent and student initiatives (i.e. restorative justice and parent engagement). To acquire the Teacher Leader Certificate, the monthly seminar topics will be linked to the seven Teacher Leadership Standards (TLS), and all participants will be required to train other classroom teachers based on their emergent learning.

The second option for mentor growth and development is to participate in the UCLA Principal Leadership Institute (PLI), which prepares leaders in Los Angeles to be social justice leaders committed to: advocate for quality learning opportunities; improve teaching and learning; promote educational achievement for all students; create democratic and culturally-responsive learning environments; and build partnerships with parents and community groups. PLI has prepared approximately 500 leaders, half of whom are teacher leaders and 90% of whom serve in low-income communities of color.

All curricula is based on a theory-to-practice approach. Through a 13-month program, PLI’s graduates become instructional leaders who understand the conditions needed to promote rigorous, high quality learning. They become adult educators who support development of teachers and staff, and community leaders who have the knowledge and commitment to forge

partnerships with parents, grassroots community groups, civic leaders, and organized labor.

The PLI program grants a Master of Education and the Preliminary Administrative Services Credential. Candidates complete 40 units of coursework and 12 units of fieldwork experiences to qualify for the Master of Education and recommendation for the credential. Through fieldwork in schools and communities, students grapple with critical questions facing social justice educators. PLI applicants meet the following criteria:

- Minimum 5 years full-time teaching or personnel service experience; 5 years preferred;
- Successful undergraduate performance;
- Graduate Record Examination (GRE);
- Strong recommendations; one from a current supervisor;
- Ability to communicate well in-group settings.
- Possess a valid California teaching or services credential.

This current pathway will be restructured for IMPACT mentors to include 50% field-based coursework and 50% online learning. Fieldwork will take place at school sites as mentors take on teacher leadership roles and strengthen best practices in the development of the apprentice/mentor experience in the areas of literacy within new standards, assessment tools, feedback processes, restorative justice, democratic processes and parent empowerment.

2C.3: First Year of Teaching: In Year 2 of the program, apprentice teachers transition to their own classroom, supported by summer coursework and planning to begin their Master’s Inquiry Project—the signature capstone assessment that demonstrates candidates’ understanding of theory, curriculum, pedagogy and student data within their classroom, to improve instruction.

Table 3: Year Two Integrated Learning Opportunities

Year 2 Summer Quarter	Year 2 Fall Quarter	Year 2 Winter & Spring Quarter
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Complete coursework		
Content teams meet weekly to support transition to full-time teaching and plan Master's Project.	After-school content team seminars and individual meetings with UCLA faculty advisor to support the completion of the Master's Project	
	Candidates begin induction program with an IMPACT faculty advisor/mentor who coordinates with LAUSD and other program partners to support the candidates' learning and practice in the context of their new school.	

2C.4: Induction Support: After IMPACT candidates receive their credential at the end of Year One, they finish their graduate coursework in the summer of Year Two and complete an Inquiry Project by the end of the calendar year, using their developing practice as a full-time teacher as the focus for their research, instructional improvements, reflection and writing. The project fulfills the exam requirement toward the candidate's Master's of Education degree. It is based on teacher research wherein teachers determine a question and/or topic of interest based on their teaching practice and student observations. The inquiry focuses on a central question and uses a cyclical model in which the teacher investigates a question, develops and implements an action plan and revisits it based on their emerging understandings of student learning and engagement. Teachers triangulate their data to form conclusions based on their own experience as well as secondary research. Theory, practice, and reflection are key to the Master's Inquiry process.

In the fall of Year Two, IMPACT teachers begin their formal induction to full-time teaching. The IMPACT program is based on the premise that competent teachers develop over time and need support every step of the way. A program goal is to establish a professional culture of teaching in schools where learning is not packaged into stages or programs but instead is viewed as a continuum that lasts throughout a teacher's career (Putnam and Borko, 2000; Wilson and Berne, 1999; Darling-Hammond and Sykes, 1999). As IMPACT teachers begin their first job as a full-time teacher of record, they are required to complete a two-year Beginning

Teacher Support and Assessment (BTSA) Induction Program in order to earn a California Clear Teaching Credential by year three of their career. The BTSA program is intended to engage preliminary credentialed teachers in a job-embedded formative assessment system of support and professional growth to fulfill the requirements of the California Clear Multiple Subjects and Single Subject credentials.

For Phase 2 of the IMPACT Program, LAUSD's BTSA Office has agreed to collaboratively design and implement a customized induction program that is in accordance with the Standards of Quality and Effectiveness for Professional Teacher Induction Programs and aligned to the California Standards for the Teaching Profession. The IMPACT Induction Program (IIP) will honor the work of the Master's Inquiry Project and leverage the knowledge and experiences of the network of IMPACT mentor teachers, UCLA-based field support providers, and the innovative schools in the IMPACT program.

Through structured professional development and formative assessment activities, the IIP will ensure teachers meet the following program goals:

1. Increase student achievement by effectively implementing the elements of the California Standards for the Teaching Profession (CSTP);
2. Enhance knowledge of content specific pedagogy and strategies to increase student achievement in the core content areas;
3. Strengthen knowledge and implementation of effective assessment tools and strategies, including at risk and early warning reports from MyData, to correctly diagnose student attainment of identified standards in the core content areas;
4. Increase knowledge and implementation of English Language proficiency assessments;
5. Develop proficiency in using state-adopted academic content standards and LAUSD's

Teaching and Learning Framework in the core content areas to design learning experiences to meet the needs of all students;

6. Provide an induction program that allows IMPACT Teachers to meet the requirements for the California Clear Teaching Credential while focusing on meeting the needs of their students within the context of LAUSD priorities.

LAUSD is currently engaged in the implementation of a pilot induction model that uses the New Teacher Center's Formative Assessment System. UCLA and LAUSD partners will customize the pilot system to support IMPACT teachers in developing as professionals and advancing in the Continuum of Teaching Practice of the California Standards for the Teaching Profession. This will include a structured series of critical thinking tasks and actions that complement the UCLA Master's Inquiry Project and are completed within each participating teachers' classroom with the assistance of UCLA support providers or highly trained mentors.

Each IMPACT teacher will be paired with a highly trained induction support provider (mentor or faculty advisor) taking into consideration credentials held; subject matter knowledge; orientation to learning; relevant experience; current assignments; and geographic proximity. Induction support providers will develop a confidential relationship of support and assistance with the IMPACT teachers they serve. Support provided will include, but will not be limited to, bi-weekly visits to observe teaching practice and provide feedback, demonstration lessons, assistance with lesson planning and assessing student learning, and release time to observe others. UCLA faculty support providers receive three instructional workload credits per year to engage with IMPACT students, mentors and schools. All induction support providers will have mentor training and content pedagogy professional development through New Teacher Center and the Center X Subject Matter Projects.

With support from the IMPACT Induction Program, teachers will prepare and submit work products for review at designated points during their first year of teaching as evidence of completion of all program requirements necessary to apply for a Professional Clear Teaching Credential. These work products will comprise their Induction Portfolio—a comprehensive collection of authentic assessment activities compiled to demonstrate and document participating teachers’ attainment of each element of the following California Commission on Teacher Credentialing Induction Standards: 1) Standard 4: Formative Assessment System, 2) Standard 5: Pedagogy, and 3) Standard 6: Universal Access: Equity for all Students.

Source: (<http://www.ctc.ca.gov/educator-prep/standards/induction-program-standards.pdf>)

With the successful submission of this portfolio, IMPACT teachers will be eligible to clear their credential through the Early Completion Option (ECO) in accordance with Senate Bill 57 (Scott). Participation in the IMPACT residency program coupled with customized IMPACT Induction Program will ensure IMPACT teachers are poised to qualify for the Early Completion Option. In the second and third years of teaching, IMPACT teachers will continue to be supported through quarterly seminars and an online collaborative community site.

2C.5: Focus on STEM and Linked Learning Schools: One of the goals of the Federal Science, Technology, Engineering, and Mathematics (STEM) Education 5-Year Strategic Plan is to “increase and sustain youth and public engagement in STEM by supporting a 50 percent increase in the number of U.S. youth who have an authentic STEM experience each year prior to completing high school.” This goal is being addressed within the Los Angeles Unified School district through federal Magnet School Assistance Program grants that have supported the development of STEM based elementary and middle schools and Linked Learning, an approach to education that is being successfully implemented throughout California and, since 2009,

within LAUSD high schools. Currently there are 35 LAUSD industry-themed Linked Learning pathways and 17 of them are in STEM focused careers including Health Science and Medical Technology, Energy, Environment and Utilities and Technology. Pathways can be small schools, California Career Partnership Academies or theme-based learning communities within a large high school. Each Pathway has four core elements: a strong academic component; a challenging technical element aligned to one of California's 15 industry sectors linked to academics; a spectrum of work-based learning experiences; and support services. Pathway sites define graduation outcomes specific to their industry theme, as well as grade level student learning outcomes. Students actively learn through work-based learning experiences linked to pathway curricula and real-world multi-disciplinary projects and presentations that marry academic and technical coursework and are often evaluated by a panel of industry and post-secondary experts.

These STEM-based settings, will provide the environment for Phase 2 of the UCLA IMPACT program—allowing pre-service teachers to not only have an accomplished subject area mentor but also to be immersed in a STEM clinical residency experience.

2C.6: Enriched by STEM/STEAM Partnerships - Further enhancing the preparation of IMPACT teachers within STEM schools, the program will build on relationships established during Phase 1 with NASA and Inner-City Arts. The AERO (Aerospace, Education, Research, Operations) Institute, a NASA Dryden Flight Research Center, will partner with IMPACT in Phase 2 to significantly enhance apprentice and mentor capacity to connect STEM learning to real-world contexts, advancing 21st century learning skills and making learning relevant. AERO partners will provide access to STEM curricula and provide NASA-specific field and professional development experiences in science and engineering practices for both IMPACT apprentices and mentors. They will also offer professional development in CCSS Math curriculum focused on

mathematical modeling. Finally, NASA will provide “Educator Webshops” with specialists serving as “virtual” guest speakers in secondary math and science classrooms.

Inner-City Arts (ICA) is a highly regarded arts education provider in its 25th year of serving LAUSD students and teachers. Since 2006, UCLA TEP K-5 pre-service teachers have participated in the renowned ICA – Annenberg Professional Development program, an experiential visual and performing arts training program for classroom teachers. In 2013, this partnership expanded to include a pilot with secondary math and science residents.

Building on the successes of this partnership and the learning from the secondary pilot, Inner-City Arts will provide Phase 2 elementary and secondary cohorts foundations in the arts as entry-points and curriculum connectors for STEM subjects. This will provide a unique utilization of arts teaching and learning in the development of access to, and learning in, STEM disciplines.

ICA educators engage in research-based pedagogical practices informed by the field of neuro-education on how K-12 students best develop higher order thinking skills. In their work with ICA, pre-service teachers experience and learn to provide pedagogical practices to create classrooms where students are empowered to think critically, express the ‘thinking behind their thinking’, and work collaboratively; essential elements in college and career learning goals and standards. In addition to providing access to exploring content in and through the arts, ICA educators also provide strategies for acknowledging and developing students’ social-emotional learning. In Phase 2, residents will engage in a minimum of five professional development sessions and mentors will engage in a minimum of two professional development sessions during the school year. There will also be additional professional development opportunities available to the mentors through other strands of the ICA–Annenberg Professional Development Program.

In addition to the learning opportunities provided for the UCLA TEP residents and

mentors, STEMing Forward partners – NASA-AERO, UCLA mathematics and science faculty, and CNSI – will also have the ability to advance their learning. Through planned professional development interactions, these STEM experts will learn about K-12 educational settings in Los Angeles and deepen understanding of the pedagogical integration of art into STEM through dialogue, model-based practices and social interactions while engaging in art mediums. These understandings will assist STEMing Forward partners in creating projects and educational experiences that are more relevant to students in LAUSD public schools. Research partnerships will be sought between partners leading to shared publications of outcomes and implications.

2C.7: Driven by Internationally Benchmarked College and Career-Ready Standards - To further enhance the quality of instruction and learning in Phase 2, IMPACT will align its professional preparation and development activities with Common Core College- and Career-ready Standards in Mathematics and English/Language Arts as well as the Next Generation Science Standards (NGSS). These standards are based on a definition of the knowledge and skills needed to succeed in both entry-level postsecondary coursework and the high skill workforce. All standards and the Smarter Balanced assessments being used in California to measure Common Core proficiency were based on international standards including PISA and TIMSS, national standards from NAEP, SAT and ACT and content standards of high-performing states and countries.

Particular focus in this grant will be on implementation of Common Core mathematics standards as well as the following K-12 NGSS dimensions: (1) *Practices* that engender the behaviors that scientists exhibit, (2) *Crosscutting Concepts* that go across all scientific subject areas, such as cause and effect, and, (3) *Disciplinary Core Ideas* that have broad application, relate to the interests of students and can be taught over multiple grades with increasing depth.

(a) The development or implementation of professional development or preparation

programs aligned with those standards: The Common Core and NGSS standards form the instructional foundation for IMPACT coursework, field support, and mentor professional development. Key to effective Common Core and NGSS implementation and student attainment of college and career readiness are the instructional shifts that need to take place in teacher practice *and* student learning. Within the IMPACT sites, LAUSD is implementing guided professional development through the Literacy Design Collaborative (LDC) and the Math Design Collaborative (MDC). In addition to district support, IMPACT mentor teachers will be engaged in monthly workshops focused on implementing the instructional shifts that lead to a rigorous yet engaging curriculum. Additionally, the Center for Powerful Public Schools will provide professional development on standards-aligned performance tasks that connect to student learning outcomes and can be integrated into interdisciplinary project-based units, which are one of the hallmarks of the Linked Learning approach.

(b) Strategies that translate the standards into classroom practice: In addition to using LDC and MDC tools and strategies to implement the standards, the Linked Learning approach allows teachers to make meaning of each standard and design performance tasks through which students can demonstrate mastery of each standard within interdisciplinary projects and across multiple applications. The following table illustrates how Common Core math instructional strategies can be applied in Linked Learning classrooms.

Table 4: Linked Learning Aligned Common Core Instructional Shifts for Mathematics

CCSS Instructional Shift	Applying the Shift in Linked Learning
Focus	Linked Learning pathways focus outcome-based and student-centered instruction. Student learning is monitored through formative and summative student performance assessments that measure the key concepts that students have learned to mastery, rather than how many topics teachers have covered.

Coherence	Teacher teams in Linked Learning pathways collaborate together to provide multidisciplinary learning opportunities for students. Use of mathematics and mathematical practices purposefully extends out to other classrooms.
Fluency	The thematic approach of career pathways allows mathematics teachers to continually spiral back to foundational skills and concepts. Students have multiple opportunities to practice in a variety of contexts until key mathematics can be performed with speed and accuracy.
Deep understanding	Complex, industry-based problems provide opportunities in which students are required to use mathematics in new situations and persist through extended problem-solving scenarios.
Applications	Real-world projects offer open-ended contexts in which students must make independent determinations about when and how mathematics should be applied and what mathematical approaches will best serve to solve a problem.
Dual intensity	Students engage in multidisciplinary projects where foundational mathematics skills can be learned and practiced to fluency within the math classroom, and are then applied to larger, novel problems that span multiple classes

(Source: Stanford Center for Opportunity Policy in Education - Knowledge Brief, August 2013, https://edpolicy.stanford.edu/sites/default/files/publications/linked-learning-advantage-using-linked-learning-implement-common-core-state-standards_5.pdf)

2D. Effective Collaboration of Key Partners

The proposed project will be managed by UCLA as lead partner, with oversight from the broader partnership. UCLA will be responsible for building a staff, delivering an effective residency program, achieving financial sustainability, and assuring assessment and evaluation.

UCLA Center X - Center X's work extends across two graduate credential programs, the UCLA Teacher Education Program and Principal Leadership Institute, and several professional development initiatives. Together, this work aims to transform public schooling to create a more just, equitable, and humane society and is driven by a common theory of change, as described above. Center X employs approximately 150 educators and other personnel, supported by an administrative unit that oversees several large grants, contracts, and sales and services. As a unit

within the Graduate School of Education and Information Studies (GSE&IS), Center X is also supported by the GSE&IS Business Office and Office of External Relations as well as the UCLA Office of Contracts and Grants. In addition to being housed in a well-supported Institute of Higher Education, Center X has a long track record of working with LAUSD, the Center for Powerful Public Schools, and a range of other educational partners.

Los Angeles Unified School District (LAUSD): District partnerships are central to this reform process. Within the LAUSD—the nation’s second largest educational system—there are four geographically based Local Districts, and one non-geographic district, the Superintendent’s Intensive Support and Innovation District (ISIC), which is known as a reform leader. ISIC contains both the most underperforming schools as well as the most innovative sites including many of the schools within the first IMPACT grant including all the Pilot Schools that now number 48. ISIC serves 132 schools and approximately 115,000 students throughout LAUSD. A goal of ISIC is to support LAUSD's mission for all youth to graduate college-prepared and career-ready by:

- Investing best thinking and resources in schools doing the most challenging and innovative work
- Supporting collaboration within schools and between schools by building relationships and sharing best practices for school-level systemic change
- Leveraging resources such as technology and community partnerships to support the teaching and learning of students, parents and teachers

Many of the proposed Linked Learning secondary sites are part of ISIC and a number of elementary sites are STEM focused Magnet Schools. The Magnet Programs are Court-Ordered voluntary integration opportunities available to students in grades K-12 living within the LAUSD

boundaries. Currently, there are 191 Magnet Programs located in the District and all students, including English Learners, Special Education and Gifted/Talented are encouraged to apply.

Center For Powerful Public Schools (CPPS) Founded in 2003, and formerly known as the Los Angeles Small Schools Center, CPPS builds the capacity of educators to create and sustain powerful public schools that prepare every student for college, career and life. CPPS creates and supports programs that improve learning and teaching in public schools by equipping teachers and administrators with the resources to ensure youth are prepared to meet the demands of the 21st century. CPPS believes that powerful public schools are essential to an equitable society, economy and democracy. With a mission focused on equity, access and choice, CPPS is a leader in school reform that encompass the most underserved communities in the Greater Los Angeles region. Since 2010, when CPPS was chosen to be the first regional California Linked Learning Center in Southern California, the staff has provided technical assistance, coaching and professional development for LAUSD and other LA area districts and schools. CPPS partnered with UCLA Center X and LAUSD to launch IMPACT in 2009.

Each partner described above has enormous resources, experience, and intellectual capital to contribute to this remarkable project, but no one partner can do it alone. After an extensive needs assessment, we have developed a plan that highlights each partner's strengths and responds to each partner's areas of weakness. (*see Budget Narrative for integration of funds*)

2E. Sustainable Plan and Partnership--UCLA's Fiscal Team will oversee the partnership's financial health and develop multi-year financial projections with realistic, achievable cost and revenue targets. The Program Director and staff will review and recommit financial contributions from all partners annually. The GSE&IS Development Director will work to build a diversified funding base, with contributions from local philanthropy and local, state, and federal public

sources. This will include applying for federal funds as well as working with the partners to sponsor legislation in California to provide funding streams for the residency training model and lead teacher certification. In addition, the IMPACT leadership team will work with the local business community to create a venture capital fund for public education, using models such as The Chicago Public Education Fund, The Renaissance Schools Fund, the Boston Plan for Excellence, and the Public Education & Business Coalition.

Part Three: Project Management Plan

3A. Project Leadership Team: Roles and Responsibilities—The IMPACT Urban Teacher Residency Program will be managed by UCLA as lead partner, in close collaboration with the CPPS and the LAUSD. A leadership team comprised of the partners is responsible for building a professional staff, delivering an effective residency program, achieving financial sustainability, and assessment and evaluation and includes (*Resumes in Appendix F*):

- Annamarie Francois, PI and Executive Director, UCLA Center X
- Jo Ann Isken, Associate Director, UCLA Teacher Education Program/IMPACT Director
- Nancy Parachini, Director, UCLA Principal Leadership Institute
- Jeanne Fauci, Co-PI and Executive Director, Center for Powerful Public Schools
- Brian Lucas, Director, LAUSD Talent Management Division
- Brian Johnson, Talent Acquisition Specialist, LAUSD Human Resources

Annamarie Francois: As the project’s Principal Investigator and Executive Director of Center X, Dr. Francois will work 20% in years 1–5 to oversee all facets of the program and lead the work, in collaboration with CRESST, related to research and evaluation, including but not limited to: data collection, database management, database maintenance, human subjects approval, district data access and agreements, annual reporting of GRPA measures, presentation

of findings, professional development for data-driven inquiry, etc. A graduate student researcher will work 49% in years 1–5 to assist Dr. Francois with these activities.

Jo Ann Isken: As Associate Director of UCLA’s Teacher Education Program, Ms. Isken will spend 25% of her time (10% in kind) annually planning and overseeing the programmatic aspects of the IMPACT Program, and working with IMPACT faculty advisors and other partners to develop a rigorous residency program and teacher assessments aligned with the California Standards for the Teaching Profession, California Teacher Performance Expectations, California Common Core Standards (including college- and career-ready academic standards) and Next Generation Science Standards, and translate those standards into effective classroom practice.

Nancy Parachini: Dr. Parachini is Director of the UCLA Principal Leadership Institute and the Principals’ Center. She specializes in teacher leadership, language acquisition, and bilingual education. Prior to joining Center X at UCLA, Dr. Parachini worked as an instructional leader with the Los Angeles Unified School District, serving in many roles including principal, program evaluator, and professional development director.

Jeanne Fauci: Ms. Fauci is nationally recognized for her leadership in creating small progressive schools, the first regional Linked Learning Center, and leading the design and implementation of Linked Learning pathway programs for schools in districts throughout Southern California. As the Executive Director of the Center for Powerful Schools (Center), she will spend 25% (5% in kind) of her time advancing the school and district-level Linked Learning/STEM reforms among the project’s broad-based coalition of partners.

Brian Lucas: Mr. Lucas is currently a Director for LAUSD's Talent Management Division. His work experience includes elementary teaching and 12 years of school leadership in Los Angeles, Inglewood, CA, and Seattle, WA. Most recently he focused on the development of LAUSD’s

teaching and learning rubric and revised teacher evaluation system. He is also responsible for the District's beginning teacher support and alternative credentialing programs, as well as implementing a District initiative aimed at reducing teacher turnover in hard-to-staff schools.

Brian Johnson: Dr. Johnson is currently a Talent Acquisition Specialist for LAUSD's Human Resources Department. He specializes in professional development, curriculum design and educational technology. Dr. Johnson is currently an adjunct professor at Loyola Marymount University, where he teaches secondary social science methods in the teacher education program.

The leadership team will meet monthly to coordinate all aspects of the program's management. Although working with multiple partners is an asset to the work – bringing enormous resources to leverage school transformation – partnerships present coordination and management challenges. The leadership team will ensure that the program is well-orchestrated and that all partners participate in meaningful ways. Each partner has agreed to collaborate with the others to create this program and a system of checks and balances that provide the lead partner with necessary guidance and support to ensure the success of the model. During the planning year, a detailed MOU will be created and signed by each partner to clearly define the roles and responsibilities of each.

3B. Key Project Advisors—As detailed in Part Two, Section B, IMPACT's first phase established the infrastructure required to collect and use data as a routine of practice within the UCLA Teacher Education Program. Data systems and protocols are in place to continue this effort, in partnership with UCLA's National Center for Evaluation, Standards, and Student Testing (CRESST). This partnership was vital to the success of Phase 1 and supported teacher educators working with measurement experts, statisticians, and evaluation experts to develop and use multiple measures of teaching quality (infographic pp. 13 - 14). Two key experts in this work

will continue in Phase 2 as technical advisors: Jose Felipe Martinez and Karen Hunter Quartz.

Jose Felipe Martinez, Associate Professor of Research Methodology at UCLA's Graduate School of Education, specializes in assessment, psychometric, and statistical methods, particularly methodological issues in measuring instruction and assessing teacher performance. In Phase 1, Professor Martinez participated in the IMPACT Research Group, lending his expertise to the development of multiple measures to capture teaching quality. He will continue in an advisory capacity in Phase 2, and his work will be enhanced by his participation as a PI on a new three-year National Science Foundation study to develop digital teacher portfolios for measuring formative assessment practices in science classrooms.

Karen Hunter Quartz is the Research Director of Center X and the UCLA Community School—one of the IMPACT sites—and was the PI for Phase 1 of the IMPACT program, working closely with Professor Martinez and leading the research collaboration with CRESST. Dr. Quartz is transitioning to a new position at UCLA to work more closely with K-12 partnership schools and support their engaged scholarship efforts with the university. Her interest and research on multiple measures of teaching practice will continue in this context. To provide continuity, Dr. Quartz will serve as a technical advisor in Phase 2 of IMPACT.

3C. Project Milestones and Timeline—The IMPACT Program seeks to recruit, prepare and retain 96 highly competent urban teachers in the high-need areas of math and science. Participants will be trained within an enhanced cohort-based residency program that situates learning in 18 STEM-focused elementary and secondary schools within high-need LAUSD communities. In addition, the program is premised on the value of apprentices learning alongside accomplished teacher leaders and strives to develop, support and certify these lead teachers as skilled mentors and mentor leaders. Finally, IMPACT seeks to create retention-oriented

professional workplaces that allow good teachers and teaching to flourish. Project milestones associated with these three sets of goals are displayed in Table 6.

Table 5. IMPACT Program Milestones and Timeline

PROGRAM YEAR	YEAR 1			YEAR 2			YEAR 3			YEAR 4			YEAR 5		
<i>Project Activities</i>	<i>Oct 14</i>	<i>Jan 15</i>	<i>Apr 15</i>	<i>Jul 15</i>	<i>Jan 16</i>	<i>Apr 16</i>	<i>Jul 16</i>	<i>Jan 17</i>	<i>Apr 17</i>	<i>Jul 17</i>	<i>Jan 18</i>	<i>Apr 18</i>	<i>Jul 18</i>	<i>Jan 19</i>	<i>Apr 19</i>
TEACHER CANDIDATES															
<i>Recruit</i>	Cohort 1			Cohort 2			Cohort 3								
<i>Apprentice Courses</i>				C1 – TPEs, CCSS, NGSS, edTPA			C2 - TPEs, CCSS, NGSS, edTPA			C3 - TPEs, CCSS, NGSS, edTPA					
<i>Residency</i>				Cohort 1 – STEM/Linked Learning			Cohort 2 - STEM/Linked Learning			Cohort 3 - STEM/Linked Learning					
<i>Prelim Cred</i>			C1			C2			C3						
<i>MEd Project</i>						C1			C2			C3			
<i>Induction</i>									C1 – Clear Credential						
											C2 – Clear Credential				
														C3 – Clear Credential	
MENTORS & LEAD TEACHERS															
<i>Recruit Mentors</i>	Cohort 1			Cohort 2			Cohort 3								
<i>Recruit Induction Mentors</i>				C1			C2			C3					
<i>Mentor Support & Develop.</i>				C1 Online group seminars			C2 Online group seminars			C3 Online group seminars					
<i>Mentor Institute</i>				C1			C2			C3					
<i>Lead Teacher Credential</i>				C1 Tier 1 Admin Cred.											
							C2 Tier 1 Admin Cred.								
										C3					

3E. Transparent, Legally Binding Agreements between IMPACT and All Residency

Participants--UCLA's Center X will oversee contracts with all residency program partners.

Residents will be paid a [REDACTED] stipend for their resident year tuition, fees, and related costs.

Service will be verified with a copy of an LAUSD contract and quality teaching will be assessed by the faculty advisor, mentor teacher, principal and LAUSD human resource specialist using two tools: 1) the UCLA IMPACT Observation Rubric and 2) the LAUSD Teaching and Learning Framework. First and second year teachers are considered probationary, and if given a below-standard evaluation either year (not meeting the requirements to be a highly qualified teacher), they will be released from their LAUSD contract and counseled out of the profession. Any resident who does not complete the service obligation (for reasons other than health, incapacitation, inability to secure employment in an eligible school, being called to active duty in the Armed Forces of the United States, or other extraordinary circumstances) will be required to repay the stipend with interest to UCLA IMPACT. These recovered funds will be put into the budget supporting improved recruitment and support strategies for the new year's cohort. All lead mentors will be paid a [REDACTED] stipend and will have the opportunity to apply to serve as a TEP instructor for an additional amount ([REDACTED] per class taught). Any mentor teachers who do not meet their obligations will be released from their mentor teacher duties and asked to repay the stipend.

Part Four: Evaluation

UCLA's National Center for Research on Evaluation, Standards, and Student Testing (CRESST) has been engaged in the evaluation of the UCLA IMPACT program (Phase 1), funded under the Teacher Quality Partnership (TQP) Grant Program between 2009 and 2014. For the current application, CRESST will continue to be the independent evaluator of Phase 2 of the

IMPACT program. This current proposed study will be a comprehensive mixed-method evaluation. This continuation will give IMPACT the benefit of having an evaluator who has deep understanding its goals and strategies and has access to a wide range of evaluation tools and instruments that can be easily augmented to fit the focus of the current study.

Guided by TQP goals/objectives and the proposed IMPACT program logic model and theory of action, and built upon earlier evaluation work from 2009 to 2014, CRESST will collect and analyze both quantitative and qualitative data across all five project years. In the evaluation phase 1, to measure program quality and goal attainment, CRESST used a comprehensive, multiple measures approach which included instructional artifacts, classroom logs, measures of pedagogical content knowledge, performance assessments, and teaching attitudes and beliefs, in addition to the student academic growth over time. While still preparing the final report, CRESST's earlier findings indicated that IMPACT teachers, across cohorts, had increasingly positive experience with the program, and the program succeeded in reaching its GPRA goals.

For the current proposed study, CRESST will continue to collect and analyze data from multiple measures and data sources. While the major focus of the evaluation will be on quantitative indicators, specifically key K-12 student learning outcomes, teacher learning, and other GPRA measures, CRESST also plans to include qualitative data to provide deeper and richer information about program implementation, quality of apprentice learning experience, apprentice classroom practices, mentor practices, and the larger school context.

The evaluation is designed to serve both summative and formative purposes; that is, it will provide results pertinent to overall program effectiveness as well as information the program can use on an on-going basis for program improvement and refinement. Standardized test data and other quantitative indicators provide rigorous data as broader summative evidence of program

impact. This data will be supported by additional evidence such as surveys, observations, interviews, classroom logs, and teacher work products, to provide a deeper picture of program implementation and impact and provide formative feedback for program improvement.

4A. Evaluation Questions--Questions focused on program outcomes and impact include:

1. What are the persistence rates for each cohort of IMPACT student apprentices during the 18-month program? How do these compare to prior and concurrent Teacher Education Program (TEP) and prior IMPACT cohorts in UCLA?
2. What are the achievement/pass rates of program graduates on the edPTA teacher performance assessment?
3. What are the certification rates for the graduating IMPACT cohorts? How do these compare with prior IMPACT cohorts and figures at other California universities?
4. What are the retention rates (1, 2, and 3 year) for program graduates? How do they compare with district-wide rates for new teachers? What percent of graduating teachers are retained in the partner LEA schools?
5. What is the impact of program participation on the K-12 students learning in IMPACT teachers' classrooms (as measured by state standardized tests)?
6. Do IMPACT teachers reach proficiency in their performance/practice (as measured by the Instructional Quality Assessment)? Do they improve over time?

Specific questions focused on program implementation include:

7. To what extent are apprentice teachers engaging in core program activities as part of training and induction, such as guided learning, technology integration, and data driven inquiry?

8. What is the quality and extent of mentor and apprentice teacher interaction throughout the program?
9. To what extent do mentors benefit from program participation, both in terms of their mentoring skills and their own professional development?
10. How are the partner school sites engaged in the training process, and what is the quality of the apprentice teachers' school site experience?

Additionally, as part of the evaluation we will track all other required GPRA and program indicators over time (e.g. percent of teachers hired by the LEA who are members of underrepresented groups; percent teaching high need academic subject areas; percent teaching in high need areas such as special education; percent teaching in high need elementary and secondary schools), including district-wide rates for comparison.

4B. Research Design--As noted above, a major aim of the proposed project is to test the effectiveness of the IMPACT program as evidenced by impact on student learning. A quasi-experimental design will be used to control threats to validity to the greatest extent possible (Cook & Campbell 1979). A propensity-matched comparison group design, based on 3 cohorts of teachers, will be used to assess program impacts on student learning over time. Cohort 1 will be tracked for three years of classroom teaching (2016-2017, 2017-2018, 2018-2019¹); Cohort II will be tracked for 2 years; and cohort III only for one year after program graduation.

Each cohort consists of 32 IMPACT teachers (16 elementary and 16 secondary). A group of LAUSD teachers will be selected as a comparison group for investigating program impact on student learning. Treatment and control teachers will be matched based on a range of factors including years teaching experience, credential obtained, demographics (gender, ethnicity), grade

¹ 2018-2019 student assessment data may not be available for analysis before September when the project ends.

taught, content area taught, prior achievement status of students, and school demographics and performance. To the extent possible, IMPACT teachers will have the same matched comparison teachers across years, although substitution may be required due to retention and change in grade/content area taught.

This matched comparison analysis will be supplemented by other measures in this mixed-method design. For some indicators, such as retention and district placement, the comparison will be district-wide figures for teachers with similar background characteristics (e.g., years of experience, content area taught). For other indicators such as persistence and graduation rates, certification rate, and edTPA passing, the comparison will be prior or concurrent cohorts. For other program measures, including surveys, measures of teacher performance/practice, and other qualitative indicators (interviews, observations, logs), the focus will be on tracking status.

4C. Data Collection Procedures and Measures--The project evaluation will collect data on IMPACT participants, their K-12 students, their mentors, and the IMPACT partner schools.

Table 6 provides an overview of the alignment of evaluation questions (by number) and data sources. The following paragraphs detail multiple measures and data sources used.

Table 6: Evaluation Question by Data Source

Q#	State Tests	edPTA	District/ Program data (GPRA)	IQA	Teacher surveys	Mentor data	Partner school data
1			X				
2		X					
3			X				
4			X				
5	X						
6				X			
7					X	X	X
8					X	X	X
9						X	X
10					X	X	X

4C.1: IMPACT Teacher Measures - *EdPTA*. All teacher candidates at UCLA, and at all UC campuses, must pass edPTA to receive their teaching credential. EdTPA is a subject-specific, portfolio-based assessment that uses a range of artifacts, commentaries, and other submitted material to assess a network of teachers skills and competencies in educational planning, assessment, and instruction. The validity and reliability of the measure has been demonstrated through rigorous field testing (Stanford Center for Assessment, Learning and Equality, 2013).

Given the edPTA is already institutionalized in the UC teacher education system, we plan to draw on this existing data resource as part of the evaluation plan. Specifically, as one indicator of program impact we will track edTPA scores and pass rates for IMPACT participants at end of year 1, comparing to the larger UC system.

GPRA measures. As described above, several indicators will be collected at the program level as part of regular program processes, such as program enrollment, persistence and completion information, teacher education student demographics and composition, and other program descriptive information consistent with the grant requirements (i.e., GPRA measures). We will compare these figures to publically available information from other teacher educational institutions in the state, as applicable (e.g., certification rates, completion rates). Additionally, the program will coordinate with LAUSD to access district level indicators, such as hiring, placement, and retention, for both program participants and similar teachers district-wide. This information will be summarized in annual reports, but also used in the comprehensive evaluation to shed further light on the extent to which the program is meeting its core objectives.

Analysis of teacher assignments. The use of teacher assignments as an indicator of teacher practice is a methodology developed and validated by CRESST researchers through the Instructional Quality Assessment (IQA) tool (Clare & Aschbacher, 2001; Matsumura & Pascal,

2003; Matsumura et al., 2006). This strand of CRESST research employs validated rubrics/scoring methodologies to rate teacher assignments, supplemented with a short background cover sheet and examples of student work, as a measure of the academic rigor and overall instructional quality. This measure is part of current IMPACT evaluation activities, and will be integrated into this proposed new implementation as well. IMPACT teachers will complete the IQA in at least two time points.

Analysis of classroom observation data. UCLA TEP faculty advisors observe and provide feedback to teacher apprentices when they are enrolled as IMPACT students and six months after their graduation. The faculty advisors take qualitative notes and use an IMPACT-developed rubric to support and understand pre-service and after-service teacher learning and practice. Observations occur 2 to 7 times per quarter for each teacher or teacher apprentice. The IMPACT and CRESST teams conducted a g-study on the rubrics in Spring 2014 and are in the process of data analysis to validate the rubrics. Once completed, this will be an additional teacher measure.

Teacher/teacher candidate surveys. CRESST plans to survey IMPACT participants at the end of each year of their engagement in the program (i.e., 1 year of coursework and 2 induction years). The survey will address their satisfaction with various program components and content (e.g., mentors, coursework, fieldwork), as well as their engagement/time distribution in various training activities (e.g., types of mentorship activities, types of coaching received, independent teacher opportunities), and their implementation of core program pedagogy (e.g., inquiry, data-driven decision making). The survey will draw on field tested/reliable items developed and used as part of existing IMPACT program evaluation (Wang, Schweig, Griffin, Baldanza, Rivera, & Hsu, 2013). In addition to looking at aggregate cohort responses each year, survey responses for individual teachers will be tracked over time, to assess growth.

4C.2: K-12 Student Outcome Measures. *California State Tests and Tests by the Smarter Balanced Assessments Consortium.* As part of their implementation of the new Common Core State Standards, LAUSD will be fully implementing new state student assessments on English Language Arts and math developed by the Smarter Balanced Assessment Consortium (SBAC) starting Spring 2015. The SBAC assessments will provide information regarding student achievement on a range of STEM college and career readiness standards/strands that are critical to the pedagogical approach and emphasis of the IMPACT program, such as problems solving, modeling and data analysis, and communicating reasoning (SBAC, 2014a & 2014b). We will identify the specific strands and content categories in the assessments to target for our outcome measures, building on CRESST's existing work with the SBAC assessment measures.

Although the SBAC does not currently include content specific to science, LAUSD is administering California State Tests (CST) in science to students in grades 5, 8, and 10. Additionally we plan to use SBAC's broader math assessment areas identified as transferrable to other STEM fields, such as communicating reasoning, as an outcome indicator for the science teachers. The IMPACT evaluation team will coordinate with LAUSD to access de-identified, student-level data for the purposes of the evaluation analysis.

4C.3: Other Measures. Building upon Phase I evaluation work and aligned with current study goals and objectives, CRESST will increase data collection on mentors and partner schools.

Mentors. The mentor's involvement in the program, and their professional growth through this involvement, is an important aspect of the IMPACT process. Towards that end, CRESST plans to collect multiple measures to understand the mentor's experiences and impacts through their IMPACT participation, building on measures currently collected as part of the IMPACT implementation. These will include a yearly mentor survey, classroom logs of mentor classroom

practices, an observational assessment of feedback quality, and written evaluations by IMPACT faculty. This becomes important as the pool of mentor teachers has stabilized over the past five years and our initial findings indicated the importance of support the growth of mentors.

Partner schools. The purpose of school-level data collection is both to understand the role and impact of the school in the apprentice teachers' learning process and to determine how school participation in the program might influence school level practices and norms around data-driven decision making. CRESST will to conduct 1 site visit per year for each participating school site. This aspect of the evaluation will be qualitative, drawing on interviews with school administrators, interviews/focus groups with a random subsample of both IMPACT teachers and other teachers at the schools, and targeted classroom observations. In addition to investigating the support provided to apprentice teachers at schools, the finding for each school will be integrated to provide a rubric score of the quality of implementation and instantiation of core IMPACT norms and practices at the school level (e.g., inquiry and data driven decision making).

4C.4: Power Analysis. To estimate statistical power for the proposed analyses, CRESST used the Optimal Design software (Spybrook, Bloom, Congdon, Hill, Martinez, & Raudenbush, 2011), which implements procedures described by Murray (1998) and Raudenbush (1997) for two-level, nested designs. Cohen (1988) defines small, medium, and large effect sizes as group differences of 0.2, 0.5, and 0.8 standard deviation units, respectively. As discussed above, a total of 32 teachers per year per condition will participate in the study, assuming approximately 50 students per teacher will tested. For the purposes of the power analyses, CRESST further assumes a Type I error rate of 0.05, and an intraclass correlation of 0.08 (Agodini, Dynarski, Honey, & Leven, 2003; Bryk & Driscoll, 1988). CRESST assumes statistical power levels of 0.80 when calculating minimum detectable effect sizes.

For the study, with 32 teachers per condition, the power to detect small ($\gamma_{01}=0.20$) and medium ($\gamma_{01}=0.50$) effects on student end-of-year test scores will be 0.71 and >0.99 , respectively. The minimum detectable effect size, assuming power of 0.80 is approximately 0.22. Overall, adequate statistical power is available for detecting medium-sized impact estimates on the teacher outcomes.

4D. Data Analysis Plan. Standard data cleaning procedures will be used, including preliminary descriptive checks for outliers, and cross-tabular analyses to check out-of-bounds and illogical values. Moderate to highly skewed variables will be transformed to closely approximate a normal distribution.

4D.1 Baseline Subject Differences. Since teacher selection is not intended to be a random process, propensity-score matching will be used at both teacher and student levels of analysis to address baseline treatment/control differences due to teacher selection and student assignment. The probit regression approach to matching introduced by Rosenbaum and Rubin (1983, 1984) will be used to predict probabilities of treatment (expressed as an inverse Mill's ratio) and will then be used as a fixed effect in the analytic models. Variables included in the model will include teacher characteristics collected by the state/district, and, at the student level, demographic and baseline achievement characteristics available in the district dataset. To the extent that matching is imperfect, these same variables will be used as covariates in regression analysis (to account for important baseline differences of more than 0.05 standard deviations.)

4D.2 Impact of IMPACT on Student Performance. The nesting of students within teachers biases standard errors produced in OLS regression (e.g., see Murray, 1998). For more precise tests of primary hypotheses, therefore, tests of primary hypotheses will utilize multilevel models to account for the nesting of students within teachers (e.g., see Goldstein, 1987; Raudenbush &

Bryk, 2002; Murray, 1998). Random effects in the proposed models include: (a) individual (student-level) deviations from mean scores within teacher; and (b) deviations in the group (teacher-level) mean score from the expected score for the treatment group. As an illustrative example of the types of analyses planned after follow-up data have been collected from teachers, consider the following model: $Y_{ij} = \gamma_{00} + \gamma_{01}W_j + u_{0j} + e_{ij}$, [1], where the subscripts i and j index students and teachers, respectively. The dependent variable Y_{ij} represents the student outcome variable (end-of-year test score) for student i instructed by teacher j , and the mean test score across all students in the study (i.e., the grand mean of Y_{ij}) is represented by γ_{00} . The treatment group for teacher j is represented by the contrast indicator W_j ; its coefficient γ_{01} is the difference in the mean test scores across treatment groups (i.e., the main effect of treatment). Group-level deviations from expected mean scores given treatment group are captured by u_{0j} , and individual student deviations from the mean score for their teacher ($\gamma_{00} + \gamma_{01}W_j + u_{0j}$) are indicated by e_{ij} .

Various extensions to model [1] will be considered, including the incorporation of student- and teacher-level covariates to improve the precision of effect size estimates. Moreover, we will examine models in which treatment effect is modeled as a random variable, influenced by variables such as teacher background characteristics, and aspects of the school context.

4D.3 Other Outcome Measures. A combination of descriptive statistics, t-test, and multiple regression analysis will be used to track other quantitative indices derived from surveys, classroom logs, edTPA, other GPRA program and district data (e.g., retention, persistence), observational rubric, and the IQA. Qualitative data coding will be used to analyze interview and focus group data.

Narrative Attachment A: Data for Phase 2 IMPACT Consortium of Schools

	% Economically Disadvantaged	% ELL	% special education	Average attendance	4-year graduation rate
ELEMENTARY SCHOOLS					
Buchanan STEM Magnet	89%	28%	15%	96.1%	N/A
Dr. Sammy Lee STEM Magnet— <i>NEW School—No Data Available</i>	---	--	---	---	---
Los Feliz, STEM Magnet	93%	38%	6%	97.9%	N/A
Melrose STM Magnet	61%	18%	17%	96.7%	N/A
Multnomah, Environmental Science Magnet	80%	18%	12%	96.8%	N/A
NOW Academy	89%	49%	12%	96.2%	N/A
Plasencia STM Magnet	92%	35%	10%	96.6%	N/A
Quincy Jones STEAM	87%	57%	5%	96.6%	N/A
UCLA Community School	82%	51%	9%	96.8%	N/A
Windsor Hills, Aerospace Magnet	72%	3%	6%	94.3%	N/A
SECONDARY SCHOOLS					
Academy of Environmental & Social Policy	87%	19%	7%	96.0%	70.5%
Bravo Medical Magnet	85%	2%	2%	93.6%	89.8%
Burbank Middle School STEM Magnet	86%	12%	10%	95.7%	N/A
HP Institute of Applied Medicine	81%	30%	9%	93.8%	New Sch. Unknown
Manual Arts School of Medical Sciences, Arts & Technology	84%	26%	14%	92.5%	53.6%
NOW Academy	89%	49%	12%	96.2%	52.3%
Orthopaedic Medical Magnet	87%	6%	3%	97.3%	83.2%
Roosevelt Health Academy	86%	29%	14%	94.1%	56.3%
STEM Academy	69%	21%	10%	92.0%	56.0%
UCLA Community School	82%	51%	9%	95.7%	50.0%

Walnut Park MS, STEM Academy	79%	18%	9%	96.8%	N/A
Washington Irving MS Math, Music, Engineering Magnet	84%	15%	16%	96.0%	N/A
Young Oak Kim Academy MS	87%	24%	12%	97.3%	N/A

(Source: LAUSD 2012-13 Data Summary Sheets)

Narrative Attachment B: Partner Needs Assessment

UCLA Center X, LAUSD, Center for Powerful Public Schools

NEEDS ASSESSMENT

<u>Partner</u>	<u>Program Component</u>	<u>Strengths</u>	<u>Weaknesses</u>	<u>Goals</u>
UCLA Center X	Teacher Preparation	Established candidate recruitment, math/science pipeline, preliminary multiple and single subject credential and Master's degree, program evaluation & research	Lack of integration of college career readiness standards in current curriculum	Leverage STEM and Linked Learning resources to enhance methods experience
	On-going training	Established ongoing field support and feedback during first year of teaching Use of online resources to create a network of support during years 2 – 3 of beginning teaching	Does not currently offer a CTC approved Induction Program Duplicative support services offered by UCLA and LAUSD	Collaboration between Center X and LAUSD to develop a customized induction program for IMPACT teachers
	Professional Development (PD)	Portfolio of growth opportunities through 11 professional development projects in Center X		Tie PD strengths into comprehensive induction support program
	Retention	Access to Center X professional development resources and the Principal Leadership Institute to develop teacher leadership abilities and skills, and provide a network of support	Lead teacher professional development opportunities do not culminate in a credential or degree	Develop two teacher leadership pipelines in collaboration with the UCLA Principal Leadership Institute: 1. Lead Teacher Certification 2. Tier 1 Admin Credential & Master's degree
<u>Partner</u>	<u>Program Component</u>	<u>Strengths</u>	<u>Weaknesses</u>	<u>Goals</u>
Los Angeles Unified School District (LAUSD)	Preparation	97.7% credentialed general ed teachers, 0.5% provisional – Need to check these stats Beginning Teacher Growth and Development program (BTGD) rather than the traditional BTSA program.	Large demand for new teachers (2,000 in 2014) The continuing program for participants enrolled in BTSA for 2013-14 is currently under revision. Not connected to induction program, some duplication of efforts, demands on participants not aligned	Identify Talent Management liaison and HR Liaison to serve on IMPACT leadership team
	On-going	Beginning Teacher	District induction	Connect BTGD/BTSA

	training	Support and Assessment (BTSA) program is CA Commission on Teacher Credentialing (CTC) certified induction program	support is not aligned with IMPACT program causing duplication of efforts. BTSA not connected to pre-service program	to IMPACT induction program Work with UCLA to develop coordinated, cost-sharing induction program that better serves new teachers
	Professional Development	Innovative Linked Learning and magnet schools where PD is highly developed. Common Core Facilitators are available to schools.	PD is not highly developed at ALL IMPACT Schools No standardized measure to identify, coordinate, support, recognize, compensate mentor teachers	Use mentor teachers as school based coaches and compensate them Work with partners and LAUSD HR to develop lead teacher job description and salary level
	Retention	LCAP and private funding resources provide more \$ to retain teachers	General Education: 65%	Work with UCLA Center x to support retention
<u>Partner</u>	<u>Program Component</u>	<u>Strengths</u>	<u>Weaknesses</u>	<u>Goals</u>
Center for Powerful Public Schools	Preparation	Linked Learning expert, developing communities of practice	Not involved in pre-service training of teachers.	Work with Center X to train new IMPACT program staff to support mentor and new teacher preparation
	On-going training	Linked Learning Regional Center for Southern CA Co-leads Linked Learning Network Experience with Critical Friends Groups, Cognitive Coaching	Not involved in BTSA or UCLA customized induction programs	Work with Center X and LAUSD to co-construct new teacher program Train Center IMPACT program staff to support induction program and new teacher preparation
	Professional Development	Provides training to schools to create Linked Learning pathways, advisory programs, K-12 scope and sequence, Pilot school development, Linked Learning/STEM PD: project-based learning, real world learning, integrated curriculum	More demand than staff can handle Need to hire and train new staff	Continue to work on private and public fundraising and grant submissions Secure additional fee for service contracts from LAUSD and others.
	Retention	Ongoing work with schools to develop communities of practice and distributive leadership	Advocacy for structures that support teacher retention	Collaborate with partners on lead teacher certification + salary points for lead and Linked Learning teachers

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