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**LIST of PARTICIPANTS**

KRAUSE CENTER for INNOVATION – Foothill College

**APPLICATION ABSTRACT**

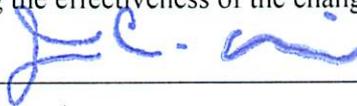
The Krause Center for Innovation provides transformative professional learning programs for K-12 educators in 21<sup>st</sup> century learning and technology skills, so they can prepare students for success in higher learning. Graduating well prepared students from the K-12 system reduces the need for basic skills education at community colleges. Although basic skills can help students ‘catch-up’ academically, studies show that additional costs associated with this coursework can be a barrier to postsecondary education (Melguzio, 2008). Studies indicate that, on average, at-risk students in California with developmental needs spend five years at community colleges before transferring, and typically only transfer one year’s worth of college-level units. The average cost for students who transferred and enrolled in a remedial course in their first semester was almost \$7,000 as compared to approximately \$4,000 for individuals who started with a transfer-level course. This does not account for the indirect costs students incur when they forgo employment during the years enrolled in basic skills. Basic skills education is more prevalent among lower income groups who are more likely to have received substandard K-12 preparation (Fry, 2002). If students avoid basic skills courses, they have a much higher probability of completing four-year degrees.

A recent McKinsey study of 25 of the world’s school systems, including top performers, found that investing in teachers is central to improving student outcomes. Better professional learning programs for educators, such as those the KCI has offers, can address this ‘basic skills economic roadblock’ and support at-need students in successfully achieving advanced degrees.

**ASSURANCE & SIGNATURE**

I assure that I have read and support this application for an award. I understand that if this application is chosen for an award, my institution will be required to submit, for approval by the Committee on Awards for Innovation in Higher Education, a report indicating proposed uses of the award funds and, as the fiscal agent, will be responsible for distributing funds to any other participating entities. I also understand that, if this application is selected for an award, my institution will be required to submit reports to the Director of Finance by January 1, 2018, and by January 1, 2020 evaluating the effectiveness of the changes described in this application.

Signed: \_\_\_\_\_



Name: \_\_\_\_\_

DR. JUDY C. MINER

Title: \_\_\_\_\_

PRESIDENT, FOOTHILL COLLEGE

## CONTEXT

### 1. Goals

Since inception in 2000, the Krause Center for Innovation (KCI) has been driven to see our children better prepared for success in higher learning and in the modern workforce. KCI's strategy to best prepare K-14 students for the challenges they will face in the 21<sup>st</sup> century, is to provide outstanding professional learning programs to their teachers. Using the conservative estimate that a single K-14 teacher can impact the learning and lives of roughly 1000 children, KCI leverages its modest resources for greatest social impact by 'teaching the teachers.' In the process, KCI has become recognized as a pioneer and leading innovator in the field of technology-based K-14 educator professional learning. As a result of our programs, KCI alumni now provide deeper learning experiences to nearly 40,000 students in Santa Clara and San Mateo counties annually. **The KCI mission is to provide educator professional learning in an environment that 'sticks' with our clients, so that they effectively acquire and use technology and 21<sup>st</sup> century learning skills, thereby transforming their teaching practice and better preparing students for success in higher learning and in their careers.**

#### **KCI program objectives include:**

- Create 21st Century classroom environments that model critical thinking and problem solving, communication, collaboration, creativity and innovation for all teacher-participants.
- Integrate innovative technology tools and processes into the learning environment.
- Guide development of technology-enriched, student-centered learning projects.
- Model assessment strategies for educational technology projects and teaching practices.
- Develop teacher leadership in peer coaching, mentoring, and training facilitation.
- For educators in ELL and low-income districts, increase teachers' content knowledge and pedagogical skills in key college preparatory subjects such as 6<sup>th</sup> to 9<sup>th</sup> pre-algebra and algebra.

KCI's unique extended duration professional learning engagements are conducted at Foothill College, which also fosters better and innovative coordination between the K-14 feeder districts, the college and the county offices of education. Not only are K-14 teachers empowered to offer better learning experiences for their students, Foothill College benefits by seeing reductions in the need for remedial education, reducing the cost and time for at-risk students to advance. This by extension helps students actually transfer in a timely manner to four year institutions and greatly enhances their chances of completing four-year and higher degrees.

**The ongoing goal** for KCI is to continue to grow - to increase the availability of our programs and to reach more educators. In 2015 KCI is ready to launch a statewide initiative to replicate our professional learning efforts in a **California-wide community college based professional learning affiliate network**. The network will train over 50,000 teachers within the next five years and thereafter at full capacity, **train over 35,000 teachers annually**. Consequently, over 1.1 Million students will annually experience deeper learning environments, providing them with the added lift to thrive in 21<sup>st</sup> century higher learning and in the workplace.

## 2. Students Served Profile

KCI primarily serves teachers in the Silicon Valley region, which includes Santa Clara and San Mateo counties. Although the Valley is recognized for its prosperity due to an economy built upon technological innovation, this prosperity is not uniformly shared throughout the community, and the disparities are directly connected with educational success. Silicon Valley Community Foundation, in partnership with Silicon Valley Joint Ventures, annually publish their Silicon Valley Index, providing metrics and analysis on the regions socio-economic status. 2014's Index continues to report that disparities in educational performance are growing. "In the 2011-12 school year, only half of public school students graduated having completed the necessary courses to attend a four-year college. Even fewer Pacific Islanders (31%), African-American (29%) and Hispanic (27%) students completed these courses" (Index of SV, 2014).

Prior to 2014, when a teacher wished to participate in a KCI professional learning program, they were required to submit an application. As part of the application, the educator's principal administrator was also expected to formally endorse the teacher-candidate for KCI training. This application approach allows KCI to ensure the PL programs are consistently comprised of motivated educators, some of whom teach at-risk students both economically and academically, as well as teachers from better funded districts. All teacher-participants share a passion to provide excellence in their learning environments. Bringing educators together from diverse districts, KCI program cohorts develop relationships for ongoing collaborations between teachers outside of the traditional boundaries of their home districts. Sharing of teaching skills and pedagogical excellence across economic and societal borders is just one facet of the KCI professional learning model.

The following table summarizes the California public school districts represented by teachers in KCI's flagship programs over the past five years: **MERIT** (Making Education Relevant and Interactive through Technology) and **FAME** (Faculty Academy for Mathematical Excellence). District demographic data is used to identify which districts are at need, by considering % makeup of English Language Learners, Free/Reduced Lunch program participants and student population Racial/Ethnic makeup. **Over 42% of the districts served by KCI are at-need based on all three metrics, and nearly 60% on at least one of the three metrics.**

**CASE STUDY:** KCI is proud to be a lead provider of Common Core based mathematical professional learning to middle and high school teachers of pre-algebra and algebra from the San Jose East Side Alliance. In 2012, only 33% of all students from the four alliance districts were completing the "A-G" requirements – the minimum course standards necessary to apply to a four-year public university in California. Furthermore, only 16% of Hispanic students completed, and they comprise nearly 50% of the east side high school population. To help mitigate this situation, the KCI is providing the professional learning programs for math teachers in Alliance districts. The ultimate goal is to ensure that students are college ready and can achieve a four-year degree in a timely manner.

### KCI Professional Learning Alumni now teach in these Bay Area School Districts

<b>Districts Served</b>	<b>% ELL</b>	<b>% Students of Color</b>	<b>% Lunch Prgm</b>	<b>Districts Served</b>	<b>% ELL</b>	<b>% Students of Color</b>	<b>% Lunch Prgm</b>
Alameda Unified	20	71	33	<b>Orchard Elem</b>	<b>32</b>	<b>49</b>	<b>49</b>
<b>Alum Rock Union</b>	<b>48</b>	<b>86</b>	<b>85</b>	Palo Alto Unified	11	15	9
Berryessa Elem.	34	39	37	Pacifica	9	51	21
<b>Campbell Union Elem</b>	<b>33</b>	<b>55</b>	<b>49</b>	Pleasanton Unified	7	17	6
Cupertino Union	12	7	5	Burlingame	22	48	13
Dublin Unified	10	33	15	<b>Ravenswood</b>	<b>72</b>	<b>99</b>	<b>95</b>
<b>Eastside Union High</b>	<b>20</b>	<b>63</b>	<b>53</b>	<b>Redwood City Elem</b>	<b>45</b>	<b>77</b>	<b>65</b>
<b>Elk Grove Unified</b>	<b>16</b>	<b>55</b>	<b>51</b>	<b>Salinas Union High</b>	<b>33</b>	<b>89</b>	<b>62</b>
Evergreen Elem	24	39	33	San Bruno Park	38	62	35
<b>Franklin McKinley</b>	<b>53</b>	<b>67</b>	<b>80</b>	<b>Mtn View -Whisman</b>	<b>36</b>	<b>51</b>	<b>42</b>
Fremont Union High	9	24	15	<b>Oak Grove Elementary</b>	<b>28</b>	<b>58</b>	<b>44</b>
<b>Gilroy Unified</b>	<b>32</b>	<b>79</b>	<b>63</b>	<b>Orchard Elementary</b>	<b>32</b>	<b>49</b>	<b>49</b>
Hillsborough	3	7	0	Palo Alto Unified	11	15	9
Lakeside Joint Union	15	23	7	Pacifica	9	51	21
<b>Live Oak Elementary</b>	<b>33</b>	<b>55</b>	<b>61</b>	San Carlos Elementary	9	19	6
Loma Prieta Union	3	9	3	<b>San Francisco Unified</b>	<b>24</b>	<b>49</b>	<b>57</b>
Los Altos Elementary	12	9	5	<b>San Jose Unified</b>	<b>23</b>	<b>58</b>	<b>45</b>
L.Gatos/Saratoga High	1	14	1	San Mateo Foster City	28	43	31
Los Gatos Union	2	9	4	San Mateo Union High	11	39	19
Menlo Park	8	27	4	San Ramon Valley Uni.	4	21	3
Millbrae Elementary	22	31	19	<b>Santa Clara Office of Ed</b>	<b>40</b>	<b>66</b>	<b>51</b>
Moreland Elementary	25	41	35	<b>Santa Clara Unified</b>	<b>29</b>	<b>50</b>	<b>40</b>
Morgan Hill	19	54	35	<b>Santa Cruz City Elem</b>	<b>24</b>	<b>41</b>	<b>44</b>
Mtn View-Los Altos	9	30	19	Sequoia Union High	17	55	32
<b>Mtn View -Whisman</b>	<b>36</b>	<b>51</b>	<b>42</b>	<b>Sunnyvale Elementary</b>	<b>38</b>	<b>57</b>	<b>49</b>
<b>Oak Grove Elementary</b>	<b>28</b>	<b>58</b>	<b>44</b>	Union Elementary	12	20	14

(Demographic data source: Ed-Data, 2013-14)

## INNOVATIONS

### 3. INNOVATION prior to Jan 10, 2014

*“We are in the business of empowering teachers so they can transform student learning” – Dr. Steven McGriff, KCI Professor in Residence*

The foundational tenant behind the instructional design of KCI’s technology-infused professional learning classes and programs is that for a teacher to become truly proficient and successful in creating learning environment excellence, technology savvy alone is not enough: pedagogical practice and core content knowledge are equally as critical. Consequently, skills-based ed-tech training is only one aspect to the KCI experience. We strive to share with our student-educator cohorts what inspired teaching looks like. Students thrive when they have access to innovative and inspired teachers.

Educator training should treat the client like the professionals they are. KCI offers teachers a venue in which to stay engaged with their cohort for up to a year, to foster project-based collaboration, encouraging creativity and helping teachers experience firsthand how technology supports deeper level learning. Our programs model 21<sup>st</sup> century student classroom environments, by intentionally designing into our instruction critical thinking and problem solving, communication, collaboration, creativity. KCI alumni receive ed-tech savvy, curriculum content knowledge and 21<sup>st</sup> Century pedagogical skills.

Developed prior to 2014, two still innovative KCI PL programs are: **MERIT** (Making Education Relevant and Interactive through Technology) and **FAME** (Faculty Academy for Mathematical Excellence).

***Paving a New Path for Educators*** - The **MERIT** Program seeks to show through qualitative and quantitative measures that engaging technology in the hands of a well-trained teacher can improve student learning. Participants have the opportunity to learn to use and contribute to a variety of resources for collaboration, and are required to design projects not simply to provide dynamic learning experiences for their students, but also create open educational resources that will be of value to other teachers and students. Participants are diverse and range in experience with technology. While the program is open to teachers of all disciplines, the program includes a special focus on math and science, where there is a significant need in so many schools to help students develop confidence in and excitement for their future possibilities with these subjects. MERIT is a year-long program that starts each spring, includes a two-week intensive summer institute, and continues with follow-up classes through the academic year.

*“I’ve been in education 15 years and found lots of my PD valuable, but MERIT has been the most purposeful, empowering and valuable. I look so forward to returning to my campus as a transformed teacher. – MERIT 2013 Alumni*

**Mathematics Made Relevant** - The **FAME** program is designed to increase teachers' content knowledge and teaching skills in key pre-algebra, algebra, and transformational geometry concepts in grades 6-9, while encouraging the use of technology in instruction to support and enhance mathematical learning. The FAME program consists of a two-week summer institute at KCI-Foothill College and four follow-up sessions during the academic year. In the 10-day summer institute, teachers explore pre-algebra, algebra, and transformational geometry concepts with an emphasis on topics that students often find challenging to learn and teachers find challenging to teach. Emphasis is also focused on making these concepts relevant and contextual, based on real-world applications. Computer and Internet technologies are introduced and used to support teaching and learning these challenging math concepts.

Prior to 2014, our **key policies and practices** initiated to achieve our goal of helping teachers transform their teaching practice, were designed to find those teachers already motivated to improve their abilities, blending together a cohort of teachers from under-served and reasonably secure districts. Acceptance to participate in FAME or MERIT was via competitive application. Upon the successful completion of the program, participants were given stipends and incentives, recognizing that teachers had to make conscious decisions to spend a large amount of their off-time in our program. This is just a small example of how KCI strives to always treat teachers as professionals – participation and enthusiasm naturally follow. Another key practice was pre and post training surveys as well as hiring independent third party auditors to assess the programs' effectiveness. In Appendix B we have included one recent audit report.

#### **Key result metrics:**

- **85%** of our alumni teachers report a Proficient or Advanced technology expertise profile level within 2 years of completing **MERIT 2013**. In contrast, among the comparison group there was no net shift in teachers' profiles. (Independent audit Applied Survey Research, San Jose, CA )
- **96%** of alumni teachers reported an increase in confidence to use technology in their classroom after participating in **FAME 2013**; up from a prior-to-institute confidence of 52%. (ibid)
- Through Jan 2014, KCI alumni now provide improved learning experiences to nearly 30,000 students annually in San Francisco Bay Area public school districts.

#### **Two important learning outcomes** informing our current and future efforts:

- KCI alumni become exceptional evangelists for our programs back in their home districts, and KCI is increasingly being approached to provide tailored PL programs for districts. We have expanded our services to meet this need. These innovations will be discussed in the next section 4.
- To scale up to a significant level of beneficial social impact, we need to enlist more trainers, work in more districts, collaborate and share best practices with fellow leaders in our space. KCI will soon embark on an ambitious statewide expansion of services, as explained in Section 5 of this application.

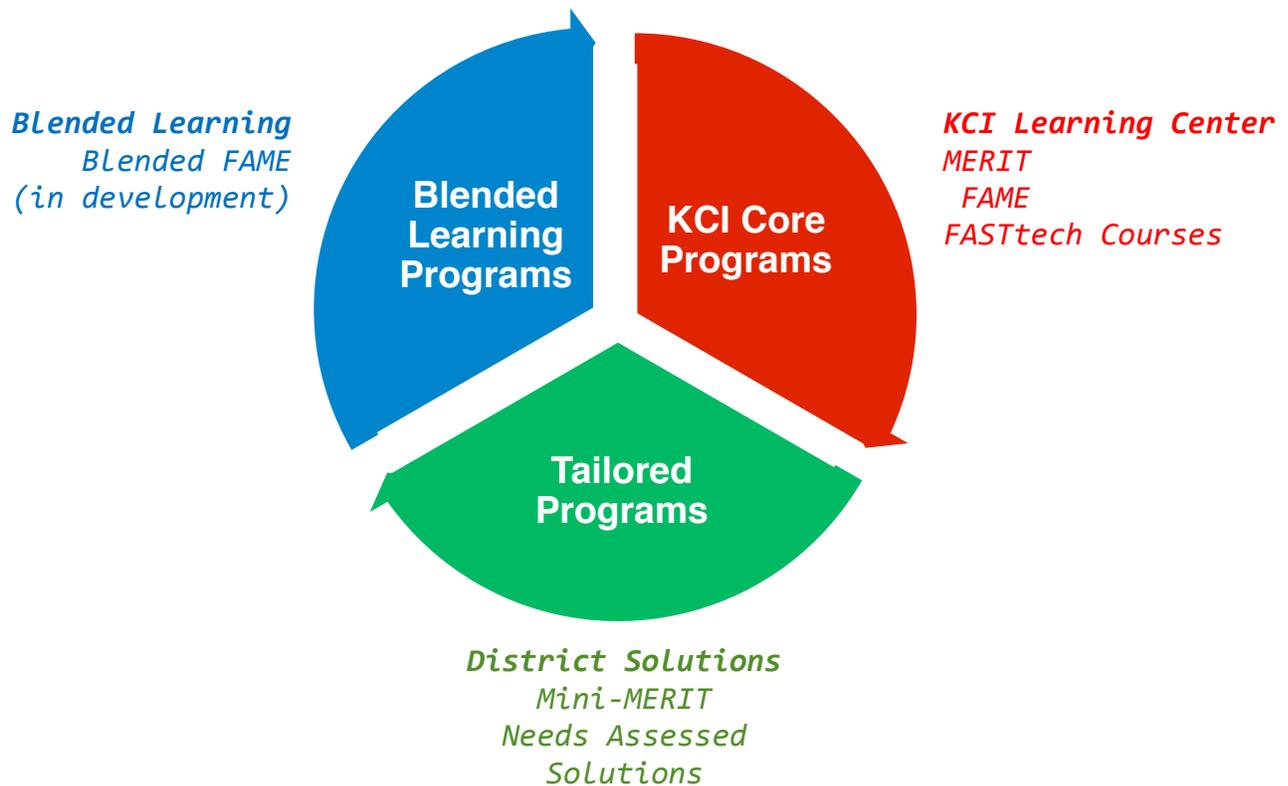
#### 4. INNOVATIONS since Jan 10, 2014

As California moves forward on implementing Common Core standards and the Smarter Balanced Assessment, the need and demand for innovative K-14 Educator Professional Learning continues to grow. Districts are also finally realizing improvements in funding levels from the state, thereby allowing administrators to acquire technology and to provide in-service teachers with long overdue and critical training. KCI has augmented its' training program offerings and adjusted business practices to address the new norm.

##### **KCI Program Categories**

In 2014, KCI reassessed its' suite of Educator Professional Learning (PL) programs by subdividing them into three general categories, distinguished by (a) the audience the product is designed for and (b) how the training is given:

- A. **KCI Core Programs** – These are our original training programs and courses, and will remain the incubator for new programs. They will continue to be offered at the KCI Learning Center at Foothill College. KCI will continue to design and offer these programs (MERIT & FAME) & the suite of FASTtech courses. The programs will continue to be designed and promoted to individual teachers. The FASTtech courses are open to teachers, college students and the community at large, interested in improving their technology skills. These courses and programs will continue to be updated and will also provide the innovative seeds for the two new categories of programs listed below.
- B. **Tailored Solutions and Strategic Consulting** (NEW in 2014) – Expanding on the established Core programs, tailored solutions and strategic consulting engagements are designed and offered to address specific district and school needs. KCI first conducts a Needs Assessment with school administrators and faculty then designs the appropriate syllabus. Quite often, given KCI's experience, our Core Program modules can be partially repurposed, resulting in innovative semi-custom programs. An example that has been well-received by districts in the Bay Area this year has been 'mini-MERIT,' which we will discuss shortly.
- C. **The KCI Blended Learning Platform** (Began Development in 2014)– Hybrid, or blended learning combines the traditional classroom experience with online instruction. The Sloan Consortium defines hybrid courses as those that “integrate online with traditional face-to-face class activities in a planned, pedagogically valuable manner.” Many KCI PL program graduates are beginning to experiment with blended learning as they flip their classrooms, putting the traditional lecture materials online for student review at home and using class-time for project-oriented learning activities. However these early adopters report that many of their fellow educators are not comfortable trying out this new teaching approach without training. KCI has kicked off its blended learning PL development by starting with the transformation of the FAME program. Details to follow in the next section.



## **New for 2014 KCI Professional Learning Programs**

### **Mini-MERIT**

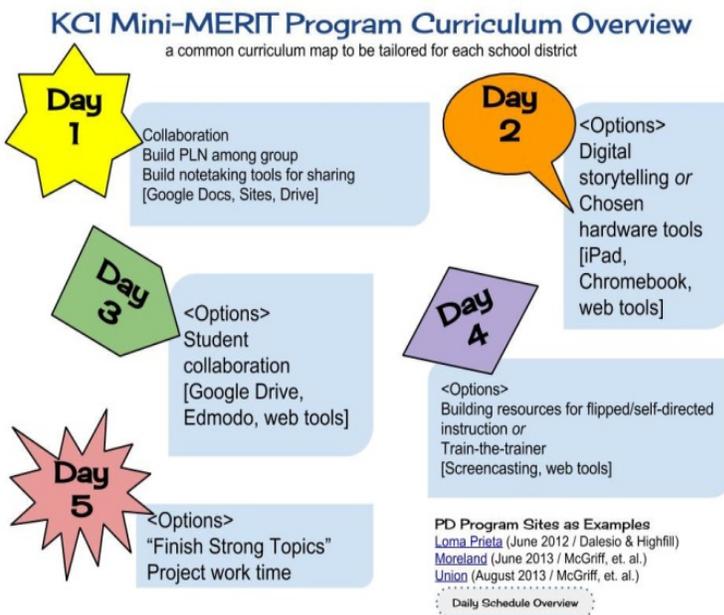
After 12 years of refining the successful MERIT program, the KCI team has distilled MERIT's best practices down into a five day program. Working closely with district clients, the KCI conducts a needs assessment with administrators and teachers, so that each Mini-MERIT session is tailored to meet the district's particular needs and goals, while retaining MERIT's focus on developing teacher confidence and skill level; emphasizing collaboration, critical thinking, problem solving and creativity.

Mini-MERIT is a five day condensed version of the two-week KCI MERIT program. The shorter timeframe allows districts to more effectively schedule for professional development. The condensed version of MERIT also allows districts to focus emphasis on the skills they want their faculty to develop. Mini MERITS can be hosted at the KCI, district office, or school site. The program has already met with great success – KCI has already conducted five summer session Mini-MERITS, generating over \$40,000 in net revenue for the center.

This summer, KCI conducted Mini-MERIT programs for Harker School; Moreland School District, Santa Cruz City School District, Union School District and Blach Intermediate School (Los Altos). Two of the five districts served are at-need, based on at least one of the three metrics identified in Section 2 of this application. Of the 400 teachers KCI trained this year, approximately 90 participated in summer session Mini-MERITS. Using a conservative estimate

that each teacher will impact the learning of 1000 students in their career, 400,000 students are benefiting from enriched classroom learning opportunities; 90,000 from the new Mini-MERIT programs.

At the end of each program, participants are asked to complete a program effectiveness survey. Teachers answer a series of questions using a 1 to 5 scale, with 1 being ‘very dissatisfied’ and 5 being ‘very satisfied.’ High satisfaction levels were seen from all 5 districts. For example, teachers were asked whether they learned technologies that they could easily deploy in their classrooms and 98% gave favorable responses. 91% affirmed that they are more prepared now to teach using technology. The KCI is proud to report that 93% of the participants in the summer Mini-MERIT sessions were satisfied or very satisfied with the program.



The KCI will continue to offer Mini-MERITS to schools and districts during the 2014-15 academic year and next summer, with a goal of doubling the number of programs provided.

*“It is encouraging and inspiring to see these fantastic new tools and how they can inspire students and deepen their learning. This training has inspired my fellow colleagues to try new things. We’ve not only developed a new culture of trying new things, but also a culture of collaboration and support for one another” – Mini-MERIT 2014 Alumni*

### NEW FASTtech Courses for 2014

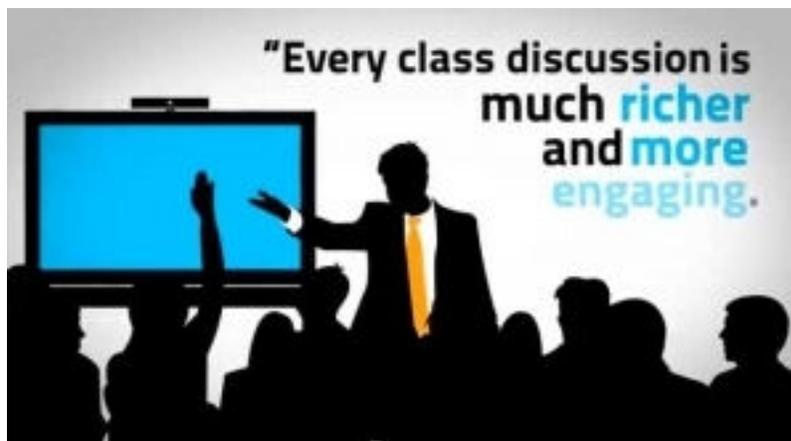
The always fast pace of technological innovation requires that KCI continuously review and update the many FASTtech classes we offer for credit at Foothill College. These 6 and 12 hour courses offer cost-effective familiarization and project-based learning in the use of technology. Here is a self-explanatory list of the latest courses.

- ***Teaching With Multimedia***
- ***Integrating Common Core***
- ***Google Apps for Education***

- *Online Collaboration Tools*
- *Effective Open Education Resources*
- *Online Web Design Tools*

## Blended Learning Platform

Online and blended learning (a hybrid of online and face-to-face learning) educational models are significantly altering the educational landscape. A recent meta-analysis (Murphy, R., et al, Blended Learning Report | SRI International, May 2014) of the empirical literature funded by the Department of Education and conducted by SRI International on the efficacy of online and blended learning as contrasted with traditional face-to-face learning, concludes: *Students in blended learning conditions perform **significantly better** than those receiving face-to-face instruction.* The report also found that: *Blended learning also involves additional elements that **increase student interaction with the content, the instructor and each other.***



Key to helping teachers embrace and gain confidence with blended learning is to have them experience it as learners. Consequently, this year KCI is beginning to redesign our professional learning programs with blended learning. KCI will kick off the development effort beginning with the FAME program. The goal is to create a program that continues to promote collaborative work and is transformative in nature, while allowing participant to learn and review content online.

To prepare for the development effort, KCI documented the FAME 2014 Summer Institute via videotaping all the direct instruction and some selected project collaboration activities. The math curriculum is being reconstructed for hybrid learning; some content and activities will remain in a face-to-face context. The rest of content will be story-boarded for online publication.

Professional Blended Learning will be a powerful game changer for KCI. Not only will it provide teachers with a personalized experience to help them flip their classrooms and utilize online instruction in exciting new ways, it will also provide KCI with valuable tools for our 2015

expansion plan to develop a statewide PL Network Affiliation. More on the affiliation and how blended learning will play a role in Appendix D for the next section of this application.

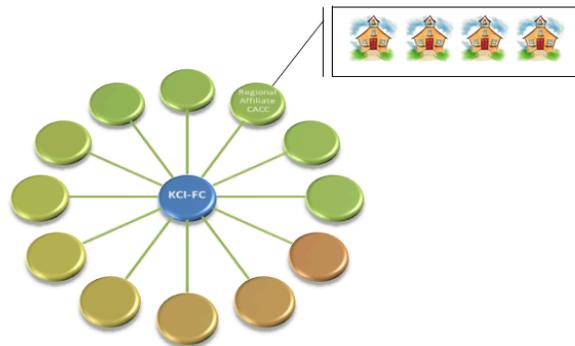
### **Selected KCI and KCI ALUMNI Awards, Accomplishments, Recognitions in 2014**

- For the last two years MERIT graduates have been named as *Emerging Teachers of the Year* by California CUE at their statewide conference.
- A MERIT Graduate from the Pleasanton School District won *first place* at the *Microsoft/KCI Innovation Award* in February 2014. Martha Kanter, former U.S. Undersecretary of Education, was keynote speaker.
- 2 MERIT graduates from Branciforte MS, Santa Cruz City Schools, have successfully created a new innovation center at their school, secured new student computers, flipped their classroom curriculums and launched a student-centric 21<sup>st</sup> century learning initiative, essentially changing the entire school culture.
- KCI Alumni have been recognized for outstanding achievement in Microsoft's Partners in Learning program, Google Teacher Academy, Adobe Distinguished Educators and Rambus Innovation Awards competition.
- To date, the KCI has served over 15,000 US educators, 250 schools, 85 districts, and provided training to international participants from Italy, Brazil and the Philippines.
- The FAME program is in its fifth year of support from the Silicon Valley Community foundation.
- The KCI launched the new Mini MERIT program as a fee-for-service model, has already conducted five Mini MERITs and is on track to conduct 6 more this summer.
- The KCI instituted a new Advisory Board that reflects all our stakeholders: educators, donors, industry, and policy makers.
- The KCI successfully launched a new series of Community Education classes for teens focused on hands-on technology projects on a fee for service basis.
- *Best Practices of EdTech PD*, was published in the spring issue of Southeast Education Network Magazine.

## 5. INNOVATIONS After Jan 9, 2015

The KCI is now ready to embark on an exciting statewide expansion plan: the implementation of a **California-wide educator professional learning affiliate network**, designed to train over 50,000 teachers within the next five years and thereafter, at full capacity, train over 35,000 teachers annually. Over 1.1 Million students will annually experience deeper learning environments, offering them the added lift to thrive in higher learning and in the 21<sup>st</sup> century workplace.

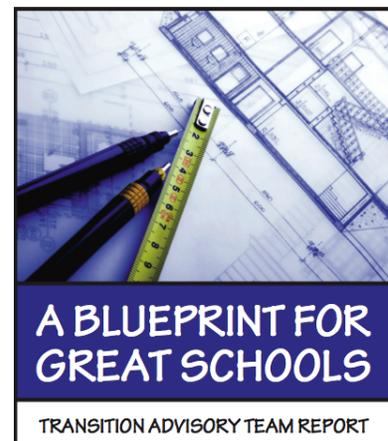
### KCI PROFESSIONAL LEARNING NETWORK



In “*A Blueprint for Great Schools*,” Tom Torlakson, CA State Superintendent for Public Instruction, calls for the establishment of a strong infrastructure for ongoing high-quality professional learning (Torlakson, et al; 2011). The KCI growth plan provides such a statewide network of affiliated training partners who will also serve as regional community hubs of policy advocacy for deeper learning practices in the classroom. The KCI will act as the hub center to ‘train the affiliate trainers’ and will provide ongoing technology-infused, blended learning professional learning programs, including our proven FAME & MERIT programs.

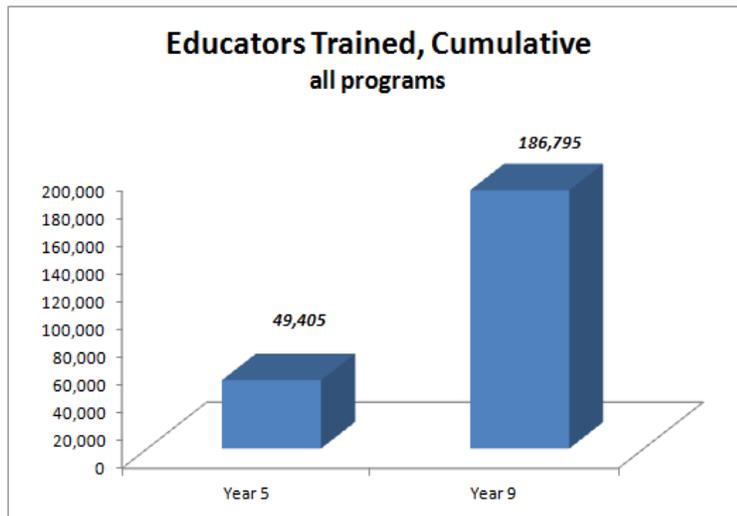
The affiliates will engage with schools and districts in their respective regions to provide in-service K-14 educators with the tools necessary to help them create 21<sup>st</sup> Century environments in their classrooms, while also establishing a practitioner level advocacy network that can initiate and support change at the local level and weigh in to support statewide efforts. KCI already has a successful history of working collaboratively with Foothill College, as well as county offices of Ed., schools and districts. This collaborative model will be the template for each regional affiliate.

KCI has designed and is beginning to implement this expansion program, based upon a working growth model plan which: details the professional learning programs, covers operational and marketing strategies and introduces the KCI team and partnerships we will rely on for the build out. Key to the plan is

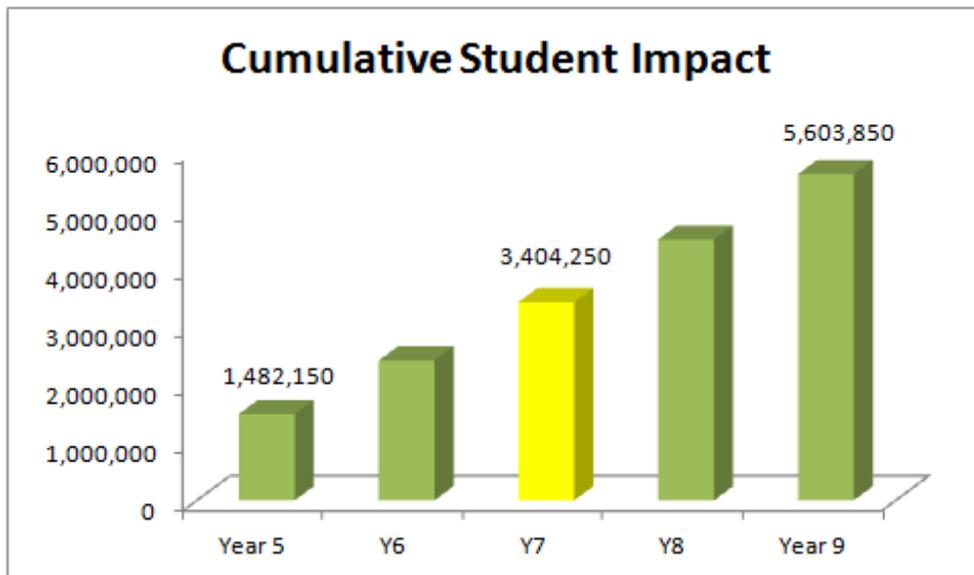


that it includes a detailed multi-year financial analysis with projected impact expectations, goals and metrics to ensure a successful launch and ongoing sustainable growth. An important design component of the plan is that it offers a roadmap for affiliates and the KCI to migrate towards a more self-sustaining revenue model, significantly reducing reliance on donations and foundation grants to support ongoing operations. Finally, this plan is designed to align with the *California Community College Online Education Initiative*, co-led by Foothill-DeAnza and Butte College Districts.

The KCI welcomes your review of our plan and looks forward to sharing with you our vision to better equip our K-14 teachers so they can significantly improve the preparation of our children to thrive in higher education and in their careers.



**Social Impact Goal – Train two-thirds of in-service CA teachers, by year 9**



**Social Impact Goal - Provide Deeper Learning environments for 50% of CA students (equivalent to the total CA at-risk student population)**

## 6. Impact on Cost of BS Degree

The primary mission of the KCI is to transform the teaching practices of K-14 educators so that their students thrive in the classroom, in higher education, and later in life. If KCI is successful in this regard and continues to grow its impact, the amount of remedial (basic skills) education required at the community college level can and should decrease. This is an important cost savings area, for both students and the state, to focus attention on. Enrolling in basic skills study significantly alters the normally held belief that attendance at a community college with the intent to transfer to a 4 year university always offers a more affordable path to a degree. **While offering basic skills education in community colleges provides students a chance to “catch up” and to secure a bachelor degree, the time and costs associated for many students is likely a barrier that they cannot overcome (Melguzio, , et al, 2008).**

Despite the relatively low tuition and fee costs of California community colleges, much of the cost spent by and for transfer students is specifically for course work that is less than college level. The Melguzio study into the costs of remedial education in the California community college system shows that, on average, at-risk students in California with developmental needs spend five years at community colleges prior to transferring, and then successfully transfer only one year’s worth of college-level courses. The study also determined that the average cost for those students who transferred and enrolled in at least one remedial course in their first semester was almost \$7,000 as compared to just over \$4,000 for individuals who started with a transfer level course (Melguzio, 2008). This discrepancy does not take into account indirect costs also incurred by the student, associated with forgoing full-time employment during the extra years enrolled in basic skills.

The extra costs associated with basic skills coursework may be a barrier to postsecondary education for those most at need. A finding of concern is the substantial numbers of students in remedial courses from African American and Latino racial/ethnic backgrounds (Wassmer, Moore & Shulock, 2004). Remedial education is more prevalent among lower income groups who are more likely to have received substandard elementary and high school preparation (Fry, 2002). Moreover, California community college enrollment in basic skills is higher than the national average (California Community Colleges, 2000). Community colleges remain a popular choice of many low-income students because they often can continue to live at home and work concurrently. Yet despite the high popularity of using the community college avenue to a higher degree, research contends that only a minority of students, 25 percent, are successful in either attaining a certificate, an associate degree (A.A.), or transfer to a four-year institution (Shulock, Moore, 2007). Clearly, better training for K-14 teachers must remain a priority to support students in successfully completing advanced degree programs.

Lastly, it should be mentioned that the cost to attend community colleges is in part subsidized by state tax revenue. K-14 professional learning can play a significant role towards increasing the numbers of students graduating with 4 year degrees, by reducing the time and cost of remediation needs in our community colleges.

## 7. Risks/Tradeoffs

A recent McKinsey study of 25 of the world’s school systems, including 10 of the top performers, found that investments in teachers and teaching are central to improving student outcomes. They found that the top school systems emphasize 1) getting the right people to become teachers; 2) developing them into effective instructors; and 3) ensuring that the system is able to deliver the best possible instruction for every child (Barber, M & Mourshed, M, *How the world’s best-performing school systems come out on top*. 2007).

When California state funding for high-quality professional development (such as the Subject Matter Projects and California School Leadership Academy) was significantly reduced or eliminated entirely, districts and county offices of education were hard pressed to meet more than very basic PD needs. And although there has been recent improvement in the funding situation, along with reform measures built into the Local Control Funding Formula and Local Control Accountability Plan initiatives, transformative teaching and leadership training is still not readily available to many of California’s educators, especially in poor districts. For 14 years, KCI has remained committed to addressing the shortfall.

In developing our existing training programs, KCI has already attempted to address some of the recognized limitations in traditional teacher professional development that can influence whether the training “sticks,” resulting in better learning environments in the classroom. There remains additional and ongoing risks which we will address shortly, but first here are some issues with traditional PD that KCI has already taken into consideration in its’ instructional design.

<b>Traditional Professional Development</b>	<b>KCI Professional Learning</b>
Short duration (typically .5 to 2 days)	Extended engagement. Intensive 5 to 10 day session in summer, with 3 to 4 follow-up sessions throughout the year
Lecture style (Teach the manual)	Collaborative, with a cohort of their peers, bringing real classroom experiences into the curriculum
Skills-based focus (how to use tech devices, etc)	Project-based learning. Creative conceptual lesson enhancement using new skills
Limited pedagogical training	Content, Technology and Pedagogical instruction are all equally stressed
Training often only to meet minimum administrative requirements	KCI transforms teaching practice (in part) by engaging with educators as the professionals they truly are
Training begins and ends with providing teacher with content knowledge	KCI educator cohorts are coached in effective communication skills and appropriate venues to share best practices with fellows

All of the above issues speak to *how* the training is offered – the KCI instructional enhancements all occur within the boundaries of our training engagements. But the ultimate goal is to see better student learning outcomes – and this presents ongoing challenges.

<b>Ongoing Challenges</b>	<b>KCI Remedies</b>
Teacher turnover in underrepresented schools	KCI alumni are encouraged to share their learning with all interested faculty. Also, when teachers feel valued and empowered, job satisfaction increases which acts as an incentive to continue in the profession
Teachers not practicing skills	KCI periodic check-ins with both alumni and their administration.
Low incentives to continue growth mindset	Collaborative communities of educators provide ongoing motivation to improve
Targeted programs addressing only ‘critical needs’	Continue to make new resources available via low cost community college classes, online and in blended learning platforms.

KCI proactively implements these remedies via:

- o Providing ongoing consultation to schools and districts
- o Encouraging the development and maintenance of “Professional Learning Communities (PLCs)”
- o PLCs are sustained by social media, email and regular invitations to KCI Learning Center events

As KCI now embarks on a statewide expansion effort to help significant numbers of teachers participate in high-quality professional learning, new challenges will come into play. A central concern is assuring that the quality standards developed at KCI-Foothill over the past 14 years are upheld in all regional affiliate learning centers. Another is that outcome evaluation metrics are carefully adjusted to meet the specific needs in a given region, while still providing a common quantitative and quality core insight into the overall performance of the learning network. Finally, as online and blended learning resources grow in significance and usage, new content effectiveness rating methodologies will be needed. KCI has already begun to enlist support in these areas by connecting with UC system educational expertise, specifically the UC Davis School of Education’s Resourcing Excellence in Education (REEd, formerly CRESS) department and UC Northridge’s Eisner School of Education. Their experiences in large scaled deployment of evaluation programs and Common Core curriculum training will be important in ensuring ongoing success.

## SUSTAINABILITY

### 8. Encouraging Innovation

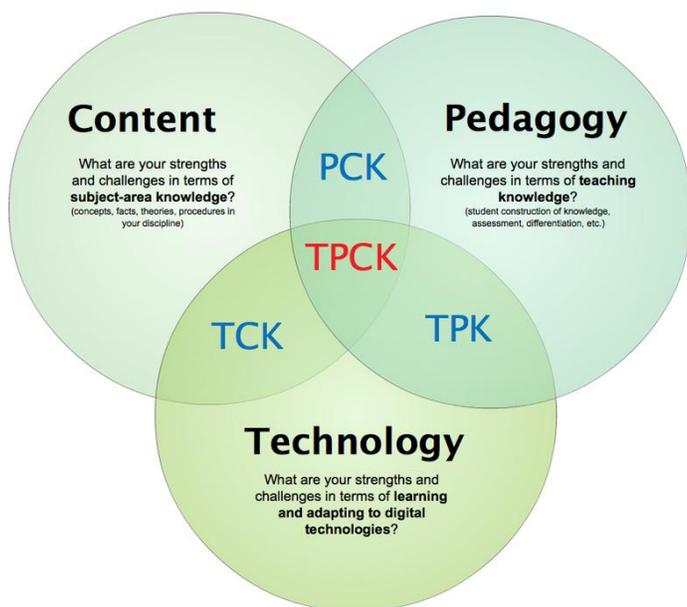
Given that the word is in our name, the Krause Center for *Innovation* is fundamentally infused with the understanding that excellence and progressive improvement flourishes in an environment of creativity, adaptability and a willingness to continuously challenge our normative practices. Not only has this operational philosophy informed our program instructional design, it has also allowed a small and modestly donor-funded team to thrive and become recognized as a leader in transformative professional learning. Even at inception, KCI leadership recognized the value in new and creative alliances for addressing change.



Gay Krause, KCI’s Executive Director and Founder, saw the need for innovative professional learning after serving many years as a Mountain View CA teacher, assistant principal, counselor and principal in both elementary and middle schools. She campaigned successfully to restore disused Foothill College facilities into the state-of-the-art technology facility KCI is today. After 14 years, the mutually supportive relationship between KCI and Foothill has never been stronger and acts as a proven template for more regional partnerships between educational non-profits and community colleges. Gay’s full bio, as well as introductions to more of the KCI team, may be found in Appendix F.



As the principal architect of KCI’s programs, Dr. Steven McGriff, Professor-in-Residence, continues to leverage a wide range of resources and talent. Central to his development of high quality professional learning programs is the appreciation for research-based best practice educational protocols, such as the TPACK framework and ISTE standards. Key to all training modules is that they facilitate easy transfer and collaboration between teachers and offer sustainable utility. To this end several basic instructional design rules include:



- Reliance on free educational technology tools, utilized in innovative “mash-up” ways.
- Remain “technology agnostic.”
- Teach the general principals of how free software works and where to locate the best options. Doing so helps the pedagogical learning to be easily transferred to each subsequent new technology innovation.
- Free Ed-tech tools are sustainable cost factors for teachers, schools and districts.

A representative example of innovation in action at KCI is our Faculty Academy for Mathematical Excellence (FAME) program. Introduced in Section 3 of this application, FAME is fully aligned with Common Core Standards and designed to help middle and high school teachers increase their proficiency in key pre-algebra, algebra, and transformational geometry concepts that students find most challenging to learn. At the same time, the program offers teaching strategies for integrating technology into their mathematics instruction. The need for the program was first identified in an academically and economically underserved district on the east side of San Jose. A four-way collaborative team was put together to design and implement the program: District math teachers and administration to identify the key at-need math topics, the Santa Clara County Office of Education to align the topics in a Common Core curriculum framework, the KCI to design the technological and pedagogical components, and the Silicon Valley Community Foundation to underwrite the project. FAME has been an extraordinary success, serving over 200 middle school teachers over the last five years. FAME is now also fully integrated into a unique cross-district collaboration – the San Jose Eastside Alliance – where multiple at-risk districts are pooling resources and sharing best-practices in faculty training.

Another example of how KCI directly encourages innovation is the successful launch of the Innovation Lab at Branciforte Middle School, Santa Cruz CA. After completing the MERIT program, teachers from Branciforte not only transformed their own and their fellows teaching practices, they re-made an unused 1940s era metal shop over into a 21<sup>st</sup> Century learning lab. In their own words:

*“A teacher’s limitations often become students’ limitations. Participating in the MERIT program allowed us to help our students find their jumping off point to fly beyond us.*

*MERIT supported two teachers to imagine a new innovation center, new computers in the library, flipped curriculum, student centered 21<sup>st</sup> Century learning, and a change in the entire school culture. This has now become an integral reality of our daily lives at Branciforte Middle School.”*

Moving forward in our statewide expansion, our past collaborative successes with community colleges, county offices of ed., large K-12 school districts, educational thought leadership and the corporate community, remind us daily that to accomplish the goal of helping teachers help greater numbers of students to succeed in higher learning, innovation is not a sole-source commodity. It takes an appreciation of the talents, needs and resources that all stakeholders can offer, glued together by visionary leadership and commitment.

## 9. Engaging Stakeholders

KCI stakeholders are a multi-faceted universe, each bringing unique value and opportunity in support of the expansion of our impact. Our outreach to each stakeholder group is tailored both for effective coverage and to leverage their assets appropriately. The key stakeholder groups, their value to KCI, methods of engagement and representative examples of each group are summarized in the following table. Examples of marketing and outreach materials for each are included in Appendix G. Also included in Appendix G are examples of stakeholders KCI is engaging with.

<b>Stakeholder</b>	<b>Primary Value to KCI</b>	<b>Primary Engagement Methods</b>
<b>K-14 Teachers</b>	Clients	KCI Website, KCI Alumni Referrals Social Media & Email, Ed. Conferences
<b>K-12 District Administration</b>	Clients	KCI Website, Quarterly Report Program Outcome Reports Direct Outreach & Email, Ed. Conferences
<b>Trainers</b>	PL Training	KCI Alumni Referrals, Direct Outreach, Contractual Employ
<b>Advisors</b>	Leadership, Promo.	Advisory Board Meetings, KCI Multi-year Growth Plan Annual, Quarterly & Outcome Reports
<b>Donors</b>	Financial, Promo.	Annual, Quarterly & Outcome Reports “KCI/Microsoft Innovation Award” Event
<b>Affiliate Community Colleges</b>	Professional learning partners/providers Workforce Dev. Contract Ed. Online Ed Initiative	College Administration Direct Outreach Campus Visits, Mailings, Direct Outreach Program Outcome Reports, Collaboration
<b>Co. Offices of Ed</b>	K-12 relationships	Outcome Reports, Direct Outreach, Collaboration
<b>UC &amp; USC Systems</b>	Instructional Dev.	Direct Outreach, Ed. Conferences, Collaboration
<b>CorporateCommunity</b>	Tech Sponsorships	Linked Learning Initiative
<b>Parents</b>	Grassroots Support	Website, Social Media, KCI Center events

## 10. Financial Sustainability

The KCI has a successful 14 year history of operation here in the Silicon Valley, relying in the beginning upon donor and foundational support. To continue indefinitely in this fashion would have been feasible. However, Gay Krause, executive director at KCI, decided that it was time to significantly broaden the Center's social impact while also evolving the Center's business model towards a more self-sustaining revenue-based model. She assembled an Advisory Board to assist in guiding the way towards this goal of supporting a greater number of educators and their students while not compromising on the quality of the programs.

To drive the growth initiative, KCI brought on board an "Encore Fellow," a seasoned private sector business person with many years of experience in both large and startup enterprises, well-versed in successfully planning for and implementing large scale expansion activities. The Fellow also came equipped with an MBA in Sustainability Management from Presidio Graduate School in San Francisco – a pre-eminent leader in both private and public sector sustainability practice. The resulting growth plan and social impact goals are fully drafted now and already on their way to implementation. The plan takes advantage of this unique period in our state's educational history, when leadership and funding exist for adoption of the Common Core State Standards, Smarter Balanced Assessment & 21<sup>st</sup> Century learning skills.

The first step towards greater financial self-sufficiency is offering more tailored programs directly to districts and schools, rather than designing our marketing outreach only to motivated teachers. This effort began this year and already has met its annual goal: this summer the KCI provided five districts with specifically tailored professional learning programs, on a contractual fee-based basis. A second front is the redesigning of successful programs (such as the Faculty Academy for Mathematical Excellence, FAME) into Blended Learning formats. Blended learning offers more cost-effective training opportunities and the ability to radically increase the scale of teacher participation. Foothill College is co-leading (with Butte College) the statewide community college Online Education Initiative (OEI) and KCI has already coordinated with OEI so that our programs are fully compatible and ready for OEI's full launch.

But perhaps the most exciting element of the growth plan is the expansion of current KCI programs to a statewide impact level. KCI-Foothill College is contacting like-minded community colleges to develop a network of affiliated professional learning centers. KCI will act as the hub center of the network, 'training the trainers' and providing ongoing curriculum and pedagogical practice updates to the programs. The affiliates will engage with schools and districts in their respective regions, providing K-14 educators with consistent PL quality and retain earnings. The network also establishes practitioner level collaborative resource. With 14 affiliates initially, the network will have trained nearly 50,000 California teachers within the first 5 years. At capacity, over 35,000 teachers will receive training annually.

The financial analysis section of the growth plan details all goals and assumptions while forecasting a positive cash flow annually for KCI, each Affiliate, and the Network in total. Details provided upon request.

## EVALUATION

### 11. Methodology

Both qualitative and quantitative program evaluations of the effectiveness of our training are conducted as an integral part of every program given. Quarterly and annual internal assessments are also done to ensure the KCI's social impact goals, as set forth in our growth plan, are being met.

Program Evaluations are conducted via both independent third party auditing and by KCI pre-post surveys of program attendees and their administrators. The audit is conducted by Applied Survey Research (ASR), an independent auditing firm based in San Jose CA. A sample (edited to stay within this application guidelines for page limits) of the most recent ASR Program Evaluation of MERIT is included in Appendix H for 'Target Outcomes.'

The key research questions that the auditing and surveys address are (a) *Did the program enhance teacher's ability to integrate educational technology into their teaching?* (b) *Did the program enhance teacher's attitudes and confidence with respect to the use of technology in the classroom?* (c) *Did students of these teacher observe and experience greater engagement with technology at school.*

These questions are applicable in evaluating all of our programs: MERIT, FAME, Mini-MERIT, etc. The findings demonstrate if participating teachers are substantially increasing their capacity to use technology that supports 21<sup>st</sup> century learning; are they building confidence in their own abilities to assess and create resources that will help them strengthen their curricula, pedagogical methodology and in building stronger networks of collaboration and expertise among fellow teachers.

For some programs, effective approaches to teaching Common Core content are part of the training. When this is the case, the pre-post surveys also include specific content questions designed to assess the teacher's evolution in subject knowledge. For example, with FAME – our Faculty Academy for Mathematical Excellence – specific algebraic questions are asked and scored for accuracy. Even these content-centric questions are designed with deeper learning in mind, using technological enhancements and critical thinking.

KCI fosters an environment of meaningful feedback and collaboration. All evaluation information is carefully reviewed to discover ways to continuously improve our programs. It is not uncommon for a teacher to submit back with their survey a request for how they can support and contribute more – KCI often enlists program alumni to train and mentor.

Finally, to determine how well we are accomplishing our social impact goals, we have built specific annual targets for the numbers of teachers served and the students they can influence. KCI uses an application process for our programs, thereby proactively focusing on underserved districts.

## 12. Target Outcomes

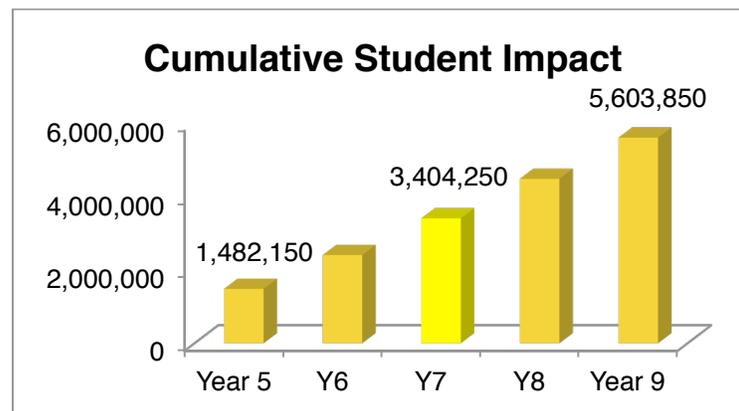
**Program Evaluations** – Appendix H includes a sample (edited to stay within this applications guidelines for page limits) of the most recent ASR Program Evaluation of MERIT. Briefly, here is a summary of recent program outcomes:

<b>85%</b> of our alumni teachers report a <u>Proficient or Advanced</u> technology expertise profile level within 2 years of completing <b>MERIT 2013</b> .
<b>96%</b> of alumni teachers reported an increase in confidence to use technology in their classroom after participating in <b>FAME 2013</b> ; up from a prior-to-institute confidence of 52%. (ibid)
<b>60%</b> of the districts served are considered underserved on at least one metric
<b>42%</b> based on all three metrics (see Section 2 of this application for details)
Through Jan 2014, KCI alumni now provide improved learning experiences to nearly <b>30,000</b> students annually in San Francisco Bay Area public school districts.

**Target number of Educators Trained Annually** - The following table summarizes the target number of educators KCI is planning to provide training for in the coming years.



**Target number of Students Impacted** - KCI uses the conservative figure that an educator will teach 1000 students over the course of their career. The following table provides a cumulative count. Note that by year 7, KCI and Affiliates will have trained enough educators to reach a population equivalent to California’s currently at-risk students:



### Detailed IMPLEMENTATION GOALS

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9
<b>Add Affiliates</b>	0	3	4	6	-	-	-	-	-
<b>Active Professional Learning Regions</b>	1	4	8	14	14	14	14	14	14
<b>Courses Given Annually</b>									
<b>KCI-Foothill</b>									
Merit	1	1	1	0	0	0	0	0	0
Fame	1	1	0	0	0	0	0	0	0
FASTtech	30	30	30	30	30	30	30	30	30
Mini-MERIT	6	10	15	20	25	25	25	25	25
Tailored Solns	10	15	20	25	30	30	30	30	30
Strat. Consulting	6	10	15	20	25	25	25	25	25
Blended FAME	0	1	1	6	12	12	12	12	12
Blended MERIT	0	1	6	12	12	12	12	12	12
<b>Year 2 Affiliates</b>									
<b>NOTE: Three Affiliates in this category</b>									
Mini-MERIT	0	0	6	10	15	20	25	25	25
Tailored Solns	0	0	10	15	20	25	30	30	30
Blended MERIT	0	1	1	6	12	12	12	12	12
Blended FAME	0	1	6	12	12	12	12	12	12
<b>Year 3 Affiliates</b>									
<b>NOTE: Four Affiliates in this category</b>									
Mini-MERIT	0	0	0	6	10	15	20	25	25
Tailored Solns	0	0	0	10	15	20	25	30	30
Blended MERIT	0	0	1	6	12	12	12	12	12
Blended FAME	0	0	6	12	12	12	12	12	12
<b>Year 4 Affiliates</b>									
<b>NOTE: 6 Affiliates in this category</b>									
Mini-MERIT	0	0	0	0	6	10	15	20	25
Tailored Solns	0	0	0	0	10	15	20	25	30
Blended MERIT	0	0	0	0	12	12	12	12	12
Blended FAME	0	0	0	0	12	12	12	12	12
<b>TOTAL COURSES STATEWIDE*</b>	<b>54</b>	<b>75</b>	<b>185</b>	<b>378</b>	<b>747</b>	<b>871</b>	<b>1001</b>	<b>1101</b>	<b>1161</b>

\*Note: Total Courses Given Statewide is arrived at by multiplying the annual course load numbers in an affiliate category by the number of affiliates; then sum all categories, including KCI-F.

**APPENDICES**

**Application: [Foothill College - 1] – Appendices**

## APPENDIX A - Letter from Gay Krause, Executive Director, Krause Center for Innovation



December 12, 2014

To Whom it may concern regarding support letter for Innovation in Higher Education Awards

It is my pleasure to support the application of the Krause Center for Innovation, Foothill College, Los Altos Hills, California for the Innovation Award in High Education.

The Krause Center for Innovation has been doing our transformational professional learning for 14 years; thus, we have an excellent proven track record of performance that is detailed in the application and support materials. We have a coherent set of innovative and replicable changes that are guided by our goals and challenges. Although we have excellent results in our programs, we continually evaluate actions to embrace our long-term vision and goals.

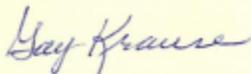
The key strengths and assets for encouraging a culture of innovation include the following:

\*Credibility of best practices in teacher/educator professional learning based on best practices of high quality of professional learning principals and practices, including common core deeper learning principals.

\*We are focused on improved outcomes for student groups that are currently underrepresented in higher education.

Based on our 14 years of professional learning implementation and work with K-14 educators, we have a sustained record of leadership, shared vision and focus as well as long-term institutional commitment. In addition to our past success, we are currently growing our programs locally and are seeking funding to grow our programs throughout the state of California to serve 35,000 educators per year in a 5 year time period. The program is sustainable long term additionally, unique to most grants and donations.

Regards,



Gay Krause  
Executive Director

## APPENDIX B: INNOVATION prior to Jan 10, 2014 – 9 pages total

### *Innovate – Educate - Empower*

The Krause Center for Innovation at Foothill College (KCI) has served the professional development needs of K-14 teachers, administrators, and educational leaders since 2000. The vision of the KCI is to be the premier educational technology professional development center for educators working in every role at any level. The mission of KCI is to develop and provide excellent professional development courses and programs for educators in K-14 systems, training them in innovative educational technology solutions that promote meaningful teaching and learning for today's students.

The KCI focuses on innovation through educational technology, with an emphasis on science, technology, engineering and mathematics (STEM) education. Through its professional development, the KCI provides practical experience in integrating media-rich, Web, and computer-based technologies into the curriculum. By applying its three core values—innovate, educate, and empower—the KCI prepares educators to pass their enhanced knowledge and abilities onto their students to improve student engagement and learning outcomes.

### Overview of key KCI programs and events

The KCI uses donations and grants from individuals and foundations, along with support from Foothill College, to design, develop, and implement our two flagship programs:

- **MERIT** (Making Education Relevant and Interactive through Technology)
- **FAME** (Faculty Academy for Mathematics Excellence)

### Program Descriptions & OUTCOMES

#### **MERIT (Making Education Relevant and Interactive through Technology)**

*“Hands down the best PD program I have experienced. You addressed my biggest issue: How can I weave in technology in a meaningful way and make learning more engaging for students. Nailed it.” MERIT 2013 Participant*

MERIT is the KCI's premier research-based, educator development program. It is designed to help teachers bolster their curriculum with technology-enhanced learning activities to motivate, challenge, and inspire diverse learners and future leaders. The MERIT program uses qualitative and quantitative measures to determine if a well-trained teacher using engaging technology can improve student learning. Participants have the opportunity to learn to use and contribute to a variety of resources for collaboration and are required to design projects that not only provide dynamic learning experiences for their students but also create resources that will be of value to other teachers and students near and far.

MERIT is a yearlong program that starts each spring quarter, includes a two-week intensive summer institute, and continues with follow-up classes in the fall and winter quarters.

MERIT 2013-14, currently underway, is designed to create a technology-focused professional development experience for educators to transform teaching and learning in the classroom and school site. The two-week intensive Summer Institute was held July 19 through August 2 at the KCI.

The MERIT 2013 cohort is comprised of 50 teachers, with 44 coming from the Bay Area and 6 international participants from Brazil (3), Italy (2), and South Korea (1). The data in this report is based on the pre and post summer institute survey that participants completed.

MERIT Teachers by Grade Level	
7	High School
20	Middle School
17	Elementary School
44	Total

MERIT Teachers by County	
27	Santa Clara
8	San Mateo
5	Santa Cruz
4	Alameda
44	Total

Frequency of Middle and High School Subject Areas Taught by MERIT Teachers	
7	English
5	Math
10	Science
4	Social Studies
4	Technology
2	World Languages
2	Visual Arts

## MERIT 2013 Program Goals and Outcomes

*“I’ve been in education for 15 years and found lots of my PD valuable, but MERIT has been the most purposeful, empowering, and valuable. I would stay for another 2 weeks! I look so forward to returning to my campus as a transformed teacher.”* MERIT 2013 Participant

MERIT is a yearlong program that includes ongoing professional development beyond the Summer Institute through the academic year. Teacher participants will continue to develop their skills while creating student-centered classroom projects that use digital media. MERIT teachers are responsible for producing multiple projects to ensure that what they learn is integrated into their curriculum planning and courses throughout the school year. Teachers are required to report on their progress and continue to receive feedback from KCI instructors and peers. The MERIT leadership team provides explicit training on how teachers can share their new expertise with colleagues at their schools, districts, and conferences.

The MERIT 2013-14 goals are listed below followed by a brief analysis of the results of evaluation data collected from the 50 participants before and after the summer institute.

## **Goal 1. Create a 21st century classroom environment that models critical thinking and problem solving; communication; collaboration; and creativity and innovation for all learners.**

With the advent of the Common Core State Standards, the 21<sup>st</sup> century learning skills will become even more important for teachers to understand and practice. One of the main approaches of MERIT is to *MODEL* the teaching and learning environment that we want teachers to embrace, adopt and implement in their own classrooms. Program participants become “students” and are expected to try numerous new technologies and methodologies. They have to critically think through how the technologies and methods are applicable in their classroom. They collaborate on projects with their peers, and produce projects and lesson plans to implement in the upcoming academic year. They go through a creative process, with feedback from fellow teachers. At the end of the program year, participants will be able to describe the degree to which they were able to transfer or adapt the MERIT learning environment examples into their own 21<sup>st</sup> century classroom.

At the end of the summer institute, they are asked: “Thinking about the project ideas you developed and presented, briefly describe your experience with the creation process and/or the presentation process.” The participants reflect on their experience, and the quotes below are representative of the group.

*“Creation process - fun, and often frustrating because my ideas and my vision of what I can do, how I can present, far exceeds the constraints of my time. I have to keep telling myself “baby steps,” because I want to fly! I want my 21st century classroom and I want it now. It was fun to present, to the small groups, and then to be chosen to present to the larger group, forcing me to delve further into my ideas and into the technology. Overall a great experience.”*

*“This, to me, was the most important exercise we did because it called for reflecting not only about a tech tool we could use, but more importantly, how are we going to change the format of our teaching. Knowing that we would present to our peers made me want to dig even deeper into something I wanted to try because I valued the feedback I would gain from the talented group of teachers here.”*

## **Goal 2. Integrate innovative technology tools and processes into the learning environment that enhance student engagement and learning.**

Participants were asked to rate statements about their knowledge or ability to use educational technology before and after the Summer Institute using a 5-degree scale from “strongly disagree” to “strongly agree.” Among the many survey items, the two following statements elicited very positive responses:

- I know how to choose technologies that enhance the teaching approaches for a lesson or unit of study
- I can choose technologies that enhance student learning for a lesson or unit of study

For the first statement, participant improved their confidence level from 32% “agree” and “strongly agree” (pre institute) to 100% (post institute) that they know how to choose technologies that enhance teaching approaches. For the second statement, participant confidence also significantly increased from 44% (pre institute) “agree” and “strongly agree” to 98% (post institute).

Another survey question asked, “What are one or two ideas you learned from the MERIT Summer Institute that you feel you will most likely apply or use in the next school year?” The following responses are typical of the transformational shift that happens for most MERIT teachers:

*“Technology is a tool, not the end game; it should enhance the curriculum, not be the curriculum. I don’t have to be an expert at the tools. There are lots of ways to do what we want do. I don’t have to be a control freak in my classroom. 21st century skills require a different approach, and I can use these new tools to reach kids. It’s about the kids.”*

*“Putting the students at the center of the learning is key! I don’t hold all the information. I show them tools to find the information and I given them the responsibility of creating! I empower them to do their best. Also, providing the structure that allows them to learn in the environment in which spend their time—the environment in which they live their lives—the world of the Device!”*

### **Goal 3. Design effective and efficient technology-enriched, student-centered learning projects that improve learning outcomes.**

One of the key strategies of MERIT is to have participants apply what they are learning immediately to develop lessons and projects that they will implement during the upcoming academic year. For some teachers, it will be a series of small projects or lesson plans started in the summer and developed to completion over the academic year. For others, they develop large projects that may take up a number of weeks of the year. This is left to the discretion of the participants since the main goal is to build their confidence level and ability to implement technology enriched curriculum.

During the summer institute, the participants worked in smaller groups organized by grade level—elementary, middle school, or high school. Here the teachers had a chance to develop their projects, get feedback from their peers, and selected projects were presented to the entire cohort. The following comments are representative of the experience for the group.

*“Thinking about a project and then creating it was exciting, and I learned so much discovering the tools that might be used to complement my teaching. I really enjoyed listening to all the presentations because everyone looks at things differently. It was great to hear what other people are thinking about doing so you can build off of that.”*

*“It was highly motivating to work on something that I’m going to roll out to my students in a few weeks. The time spent thinking about the project and preparing the presentation felt very appropriate and useful. It was also very validating to have my presentation selected by my peers as one to be shared with the whole group and our guests.”*

#### **Goal 4. Develop assessment strategies for educational technology projects, teaching practices, and learning outcomes**

Participants were asked to rate themselves on their ability to evaluate and assess the effectiveness of educational technology projects on learning outcomes. Pre institute, only 28% “agreed” or “strongly agreed” they were confident in their capability. Again, post institute, the increase in confidence level and capability is marked: 94% of the participants responded that they are now able to evaluate and assess how educational technology projects impact learning outcomes.

MERIT teachers continue to work on assessment strategies during the academic year component of the program. Results from their classroom experiences on assessment will be available by the end of the school year.

#### **Goal 5. Evaluate the efficacy of teaching with innovative technologies**

Critical thinking and evaluation skills are essential to effectively analyze, select, and use educational technologies. When participants were asked to rate their ability to think critically about how to use technology in the classroom, before the summer institute only 50% “agreed” or “strongly agreed” that they were confident in this capability. Post institute, 96% responded that they are capable of critically thinking through the application of technology. MERIT teachers continue to develop skills in vetting educational technologies during the academic year component of the program.

#### **MERIT 2013-14 CONTINUING Activities and Collaboration**

The MERIT 2013 participants have completed the summer institute, and follow-on sessions are scheduled for this fall and winter. The participants are also expected to enroll in 2 units (24 hours) of additional KCI FASTtech classes to augment the MERIT program experience. The MERIT program also encourages participants to collaborate with their cohort as well as going back to their school sites and collaborating with their peers. The participants were asked about their confidence in helping other teachers in their schools or districts to effectively combine content, technologies and teaching approaches. Pre summer institute, only 42% “agreed” or “strongly agreed” that they had this capability. Post institute, 100% of the participants rated themselves as capable and confident in this ability. This result is highly gratifying, since one of the key ways that the MERIT program increases its impact is through MERIT teachers constructively working with their colleagues to change the teaching and learning environments in their schools.

## FAME (Faculty Academy for Mathematics Excellence)

*“I am SO glad I got to experience this institute. I have been to many math institutes that really haven’t had much “useful” classroom materials and that is discouraging. With this class, I can look back at all my notes and be able to present new ways to teach math content.”* 2013 FAME participant

The Faculty Academy for Mathematics Excellence (FAME) is a yearlong professional development program for middle school mathematics teachers designed to increase student achievement in pre-algebra and algebra courses, reduce the achievement gap, and promote the use of technology to enhance the teaching and learning of mathematics. Teachers are recruited from San Mateo and Santa Clara county schools with significant numbers of English language learners (ELL) and low-income families to help their students be better prepared to take algebra in the eighth or ninth grade.



FAME 2013 is the fourth time the KCI has presented this program, thanks to a generous grant from the Silicon Valley Community Foundation and support from private family foundations. The FAME Leadership Team is made up of Professor in Residence Steven McGriff, Ph.D.; KCI Executive Director Gay Krause; and an instructional team led by Cecilio Dimas, math program coordinator from the Santa Clara County Office of Education.

The FAME instructional team selected 34 mathematics teachers to participate in the two-week, intensive summer professional development program in July. The FAME curriculum is built on the new Common Core State Standards and is designed to deepen teacher participants’ math knowledge, expand their repertoire of mathematics instruction strategies, and help them integrate technology into their teaching practice. Topics include how to use computer and Internet technologies (e.g., GeoGebra, spreadsheet software, and virtual manipulatives) to support the challenging math topics covered in the program. In the 2013-2014 academic year, FAME includes four follow-up sessions to support the teachers as they implement new math teaching strategies.

FAME 2013 included teachers representing school districts in Santa Clara and San Mateo counties with high populations of students who are underrepresented in college math and science courses. Teachers also attended the program in teams. For 2013, the selection process was as rigorous as previous programs, but the number of applications received declined. The selected teacher cohort was more diverse in terms of academic preparation and grade levels taught. For the first time two algebra high school teachers participated.

FAME Teachers by County	
23	Santa Clara
10	San Mateo
1	Other
34	Total

Number of Teachers from Same Districts		
	District	Since 2010
2	Alum Rock	12
3	Berryessa	13
4	Redwood City	8
4	San Bruno Park	5

Over the four years that FAME has been in existence, teacher participation in a number of districts has grown substantially. Besides Alum Rock, Berryessa, and Redwood City Districts mentioned above, the following districts have had numerous teachers attend and graduate from the FAME program: San Mateo Foster City (14); Oak Grove (11); Campbell Union (8); Franklin McKinley (8).

### FAME 2013 Program Goals and Outcomes

The vision of the FAME teacher professional development program is to transform teaching practices to increase student achievement in middle school pre-algebra and algebra courses in and Santa Clara counties so that students are prepared to take college-track math classes in high school. FAME seeks to accomplish this vision through five goals.

#### **Goal 1. To increase teachers' content knowledge and teaching skills in key pre-algebra and algebra concepts, such as proportional reasoning, linear relationships, functions and graphs, and problem solving**

FAME assesses the impact of the summer institute and follow-on sessions regarding teacher's mathematics content knowledge using a math content knowledge survey before and after the summer institute. Over the four summer institute's (2010, 2011, 2012, and 2013), FAME participants have increased their math content knowledge. More importantly, those who scored below the median on the pre-test made the highest gains on the post-test. On average, there was a mean gain of 1.2 points from the pre-to the post-test (all 34 participants). In terms of mastery, gains were made from the pre-to post-test in the number of participants who got a perfect score on each section of the test, with the exception of two questions.

Goal 1 also addresses teaching skills, teacher beliefs and attitudes. Self-report surveys are used to assess the potential impact of the program on teachers' instructional practices. After the FAME 2013 Summer Institute, 97% of the survey respondents stated that they could use a variety of mathematics teaching approaches in a classroom setting, as opposed to 43% prior to the summer institute. When asked whether they can adapt their mathematics instruction based upon what students understand or do not understand, 70% answered affirmatively in the pre institute survey. Post institute, 96% answered either "agree" or "strongly agree" that they have this capability. A FAME participant wrote,

*"I liked learning new approaches to identify student issues with math concepts!"*

## **Goal 2. Promote and encourage the use of technology in instruction to support and enhance mathematics teaching and learning**

This goal and its counterpart, Goal 3, are the heart of the FAME program. In the post-summer institute survey, teachers reported a greater level of confidence in using technology in math instruction. The rating increased from 52% to 96%. Ongoing program evaluation over the academic year should reveal more positive change on the use of technology.

## **Goal 3. Increase the use of technology for visualization and multiple representations of pre-algebra and algebra concepts**

Goals 2 and 3 are tightly linked. Teacher-participants' use of technology in instruction and their use of technology for visualization of content are assessed using a pre and post-program, self-report survey. The data reported below is from the post-summer institute survey and indicates the teachers' intentions for increasing use of visualization and multiple representations of mathematics concepts. Ongoing program evaluation over the academic year should reveal more.

In the post summer survey, respondents indicated a significant change in their knowledge of how to use virtual manipulatives, such as the National Library of Virtual Manipulatives (<http://nlvm.usu.edu>), from 21 % pre institute to 69% post institute. Similarly, their knowledge of how to use spreadsheet software, like Microsoft Excel and Google Spreadsheets in math instruction jumped dramatically from from 13% pre institute to 91% post institute. One FAME participant wrote:

*“More manipulatives! After working with various manipulatives during the FAME program, I have come to appreciate how much they can help build students’ conceptual understanding.”*

## **Goal 4. Guide teachers to make connections between school mathematics, the California Mathematics Content Standards, the California Common Core State Standards, and the ELD standards**

The Common Core State Standards for Mathematics and the corresponding Standards for Mathematical Practice are the heart of the FAME program. For the 2013 cohort, this took on new meaning. As part of the summer institute, the teachers completed a multi-part project—The International Space Station Design Project—over seven days to experience the reality of small group collaboration to solve a real-world challenge. The 34 teacher-participants learned first-hand how to incorporate and complete Common Core lessons, activities, and projects into their classrooms. The International Space Station Design Project meets three of four critical common core areas of Grade 7 mathematics, (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume.

The purpose of the Common Core Mathematics standards is to develop students' ability to go beyond the "right answer" or rote procedural problem solving routines to be able to think critically about multi-dimensional projects, creatively solve real-world type problems, collaborate on solutions, and communicate their results. The Standards for Mathematical Practice emphasizes all these skills in addition to perseverance in problem solving, modeling with mathematics, and using appropriate tools strategically.

### **Goal 5. Enable teachers to utilize effective mathematical instructional strategies to meet the needs of all students**

The post-summer survey asked respondents to rate their perception of their ability to use specific instructional strategies before participation in the summer institute and immediately after. For the item statement, "I can select effective teaching approaches to address common student misconceptions," the increase was significant. Pre institute only 46% of the cohort agreed with the statement, while post institute, 95% agreed with the statement. For the item statement, "I can adapt my mathematics instruction based upon what students understand or do not understand," responses show a change from 70% pre institute to 96% post institute.

Further evidence of positive change was found in responses to the statement, "I can use a variety of mathematics teaching approaches in a classroom setting." The data shows a dramatic increase of 54 points from 43% pre institute to 97% post institute.

A FAME participant wrote,

*"I really appreciated the wide variety of technologies and mathematical concepts covered in the two weeks. Although I thought that much of the material would not be relevant to my high school students, I found all of the lessons engaging and applicable to my classes."*

**APPENDIX C: 12 pages total - INNOVATIONS since Jan 10, 2014 (starts on next page)**



# BLUEPRINT

## for Innovation

News from the KCI • Spring Quarter 2014

### Microsoft/KCI 2014 Innovation Awards Applaud Innovative K-12 Instruction

The Krause Center for Innovation (KCI) honors the outstanding achievements of K-12 teachers and their students who are using technology to improve the quality of education in Silicon Valley. New this year, the KCI partnered with Microsoft to recognize the achievements of forward-thinking teachers at the annual Microsoft/KCI Innovation Award reception, which was held at the Microsoft Corporation campus in Mountain View Feb. 27. More than 100 guests attended the reception, which featured remarks from former U.S. Undersecretary of Education Martha Kanter, Ed.D., who is currently the distinguished visiting professor

of higher education at New York University and former chancellor of the Foothill-De Anza Community College District.

Educators from across the Bay Area were invited to submit an innovative teacher-student collaborative project that fully integrated technology. Awards were based on the number of students and educators that each project served, the project's potential significance to Silicon Valley, and the project's creativity and ease of use. For 2014, the first-place entry received a \$5,000 cash award; second-place finalist, \$3,000; and third-place finalist, \$1,000. "The projects submitted this year were truly innovative, and we appreciate that Microsoft recognizes and supports the valuable work teachers are doing to make education more relevant to capture the interest and the creativity of students," said KCI Executive Director Gay Krause.

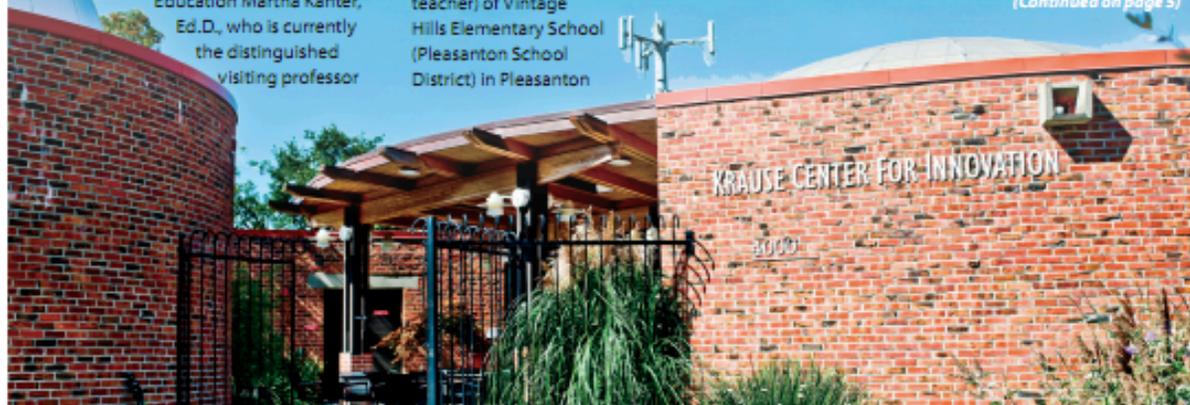
The grand prize was awarded to third-grade teacher Adam Randall (a current KCI MERIT teacher) of Vintage Hills Elementary School (Pleasanton School District) in Pleasanton



*From left Foothill College President Judy C. Mineo, Ed.D.; Martha Kanter, Ed.D., and Krause Center for Innovation Founders Bill and Gay Krause attended the Microsoft/KCI Innovation Awards reception at the Microsoft campus in Mountain View.*

for Make Your Mark. "This project is all about my students making a positive mark on the world. The class started small, taking part in International Dot Day and pledging to add kindness into the world. When they realized that their efforts could have an impact, my students set their sights on something bigger," Randall said.

*(Continued on page 5)*



## MERIT Teachers on the Move: Sara Goldfarb & Wendy Thompson

One of the goals of KCI programs is to encourage teacher participants to broaden their influence beyond their immediate classrooms, and to make a wider impact on their schools, districts and beyond. MERIT '12 teachers Sara Goldfarb and Wendy Thompson, both of Branciforte Middle School in Santa Cruz, have taken this mission to heart. They have not only transformed their classrooms, they've transformed their school.

Goldfarb and Thompson sought out the KCI's popular MERIT program to learn how technology could help them transform their teaching practice. Before MERIT, neither teacher used technology to any extent with their students.

"Although I believed in equity and differentiated instruction, my lack of skills in using and understanding how technology could function in a classroom and beyond was very limiting," Goldfarb said.

After their MERIT experience, Goldfarb and Thompson have significantly changed their teaching styles and approaches. For Thompson, all of her lessons now have the lens of how technology can support the design and implementation, and she encourages her students to find a connection to the community and their lives in their learning efforts. For Goldfarb, learning has leaped beyond the confines of the classroom as her students learn from other students via the Web. Both teachers now expect more from all their students—and expect that they will use technology for discovery and innovation.

"The students are designing their own pathways to knowledge and have gained confidence through practice and accessibility," Thompson said.

Students are now making films, using new apps, editing online, collaborating, and viewing information from around the world.

Not satisfied with just changing their teaching, Goldfarb and Thompson sought to change their school and district. They



MERIT 2012 teachers Wendy Thompson and Sara Goldfarb

envisioned a new innovation center at the Branciforte Middle School campus and produced a business plan to make it happen. They raised more than \$100,000 to take the vision to reality, and the new center is now available for Branciforte students and faculty, as well as for district usage as a professional development center. Before the center was opened, more than 450 students shared one computer cart and old computers.

The creation of the new Branciforte Digital Media & Innovation Center in Santa Cruz is due in large part to the training and paradigm-shifting possibilities that two veteran teachers experienced while participating in the KCI's 2012–2013 MERIT program.

"A teacher's limitations often become students' limitations. Participating in the MERIT program allowed us to help our students find their jumping-off point to fly beyond us. MERIT supported two teachers to imagine a new innovation center, new computers in the library, flipped curriculum,

student-centered 21st century learning, and a change in the entire school culture. This has now become an integral reality of our daily lives at Branciforte Middle School," Goldfarb and Thompson said.

In addition to their myriad duties, the duo conducts professional development for colleagues; works with the Makers Factory to bring gaming technology to Branciforte; and plans to bring a writing tutor program to the on-campus innovation center.

## Mini-MERIT

### Intensive Results, Maximum Impact

What does an organization do when it has a great teacher professional development program like MERIT that accepts only 45 teachers and runs only once a year? When the KCI's committed professionals run it, it extracts its best qualities, condenses its content, tailors its packaging, uses the same quality instructors, and delivers it directly to the client! The KCI has begun to tailor the popular MERIT program into a Mini-MERIT professional development program that best meets the identified needs of local districts. The first district to request a Mini-MERIT was Loma Prieta School District in Summer 2012. Then San Bruno Park in San Mateo County helped the KCI evolve the model into a new professional development program based on the long-running flagship MERIT program.

Like the MERIT program, Mini-MERIT focuses on developing teachers' confidence and skill teaching collaboration, critical thinking, problem solving, and creativity supported by tech tools and apps. Best practices data demonstrate that this approach increases teacher and student productivity and student engagement. Both programs fully support Common Core and feature instructors who are experienced, technology-using classroom teachers. Four key differences distinguish Mini-MERIT from its parent program:

1. Each Mini-MERIT is tailored to meet the district's particular needs and goals for its teachers.
2. The duration of the program is five consecutive days, half the total number of days of MERIT, and yet the program is still able to achieve a high level of teacher transformation.
3. The instructional teams for Mini-MERIT are comprised of up to five MERIT-trained instructors, who each facilitate a full day of training with hands-on activities.
4. The host school district funds the full cost of the Mini-MERIT program in addition to any financial or technology tools given to the participants.

Of the numerous school districts in San Jose, Union and Moreland initiated Mini-MERIT programs in Summer 2013, and continue to provide high-quality professional development to their teachers and staff. Both districts were advancing implementation of Common Core and the deployment of technology when they contacted the KCI for help.

Moreland Assistant Superintendent of Educational Services Denise Clay and Director of Instructional Technology & Student Information David Brown recognized the value MERIT teachers were bringing into their school sites over the past few years and wanted to know how to develop more teachers like them. Using teachers' responses to a needs assessment survey and the district's technology integration plan, the KCI developed a custom Mini-MERIT program to help 20 teachers better use iPads, create digital storytelling projects, integrate Google applications for education, and connect to the global education community through social media and online collaboration tools. The Mini-MERIT program met at the Moreland District Office Board Room.

The initial work with Moreland has led to additional training sessions throughout the 2013–2014 academic year. These sessions focused on Google Drive, Gmail and an iPad institute. "The KCI has helped us create staff surveys that have provided us with valuable feedback into the needs, desires and readiness levels of our educators," Clay said. "The expert staff at the KCI have also helped us align our district goals with the professional development we plan for staff. Classified staff, certificated staff and administrators have all found the sessions provided by KCI to be meaningful, relevant and connected to our larger vision."

The Union School District's Mini-MERIT program differed from Moreland's by content and long-term goal. Assistant Superintendent of Educational Services Michael O'Laughlin, Ph.D., and Director of Educational Services Terri Stromfeld worked closely with the KCI to create a program to support Teaching & Learning in the Digital Age Academy, their teacher professional development theme. Twenty Union teachers applied for the summer training program with the purpose of becoming Common Core plus educational technology leaders who could conduct peer training in the district. The topics of Union's Mini-MERIT included Google paperless classrooms, video for digital storytelling, screen casting and online media tools. By the end of the one-week program, teachers developed presentations—using educational technology tools they had just learned—and pedagogy for future district training events. The program met at the Krause Center for Innovation at Foothill College in Los Altos Hills.

Like Moreland, Union has deepened its relationship with the KCI and has continued to provide additional training throughout the academic year. Union has focused its training on the use of iPads to support Common Core-oriented instruction. Union has also sought out the KCI to conduct training on project-based learning and design thinking. "The KCI's professional development programs are providing our teachers with skills that motivate, engage, excite and empower students to love learning," Stromfeld said. "The KCI's leading-edge curriculum, supported by highly qualified, positive instructors, has given our teachers the confidence to try amazing new techniques and explore new types of learning in the classroom. As a result of the KCI's programs, our teachers are excited to create new relevant learning activities that energize and prepare our students to be resilient, thoughtful significant leaders in the global economy."

Mini-MERIT has had a strong impact on boosting teachers' confidence to use technologies in new ways. The district leadership teams have expressed high levels of satisfaction with the program outcomes, so much so, that both districts are enthusiastic to recruit a new cadre of teachers for this summer's Mini-MERIT.

If you'd like to bring a five-day Mini-MERIT professional development program to your school or district, call Liane Freeman at (650) 949-7180 or e-mail [FreemanLiane@fhda.edu](mailto:FreemanLiane@fhda.edu).



## MERIT Evaluation: Results Continue to Confirm Program's Value

In June 2012, the KCI commissioned Applied Survey Research (ASR) to conduct a two-year evaluation of the MERIT program. The purpose of the evaluation is to determine the long-term impacts of the program on MERIT teachers and the educational environments in which they work. ASR provided interim results for the 2010–2011 and 2011–2012 MERIT cohorts, which were extremely positive regarding the impact of the program and strongly supported the conclusion that MERIT boosted the quality and quantity of technology-based instruction. The second interim report on the 2012–2013 MERIT cohort is now available, and the results are equally positive.

Specifically, the evaluation focuses on how the program enhanced teachers' skills and practices, with respect to the integration of technological hardware and software to facilitate student learning. Secondly, the study seeks to understand students' perspectives of how such resources were employed in the classroom, and whether the students were able to cultivate new skills and interests as a result.

For this report, ASR augmented the data collected from teacher-participant surveys before and after the program with a comparison group of teachers who were interested in building technology skills but who did not participate in the program. A selected group of MERIT teacher students and comparison teacher students were also surveyed.

Results indicate that the MERIT teachers who completed surveys at the beginning and end of the 2012 program learned a host of new skills and immediately employed those skills in the classroom in 2012–2013. On average, MERIT teachers gained expertise in using five new technology skills and resources, while a comparison group of teachers reported no change in expertise over the same period. MERIT teachers then incorporated these new skills into their regular teaching methods

in numerous ways—developing their own websites, creating their own interactive presentations, and taking advantage of social networking tools to communicate with students and other educators, for example. By the end of the school year, teachers reported significantly greater confidence in their ability to assess, create and enhance technology, and to contribute and share best practices within the broader community of educators on technology issues.

The analysis of middle school student survey data strongly support the notion that students whose teachers participated in MERIT were engaged with a wider array of technology resources, and used them more frequently, as compared to students whose teachers did not participate in MERIT. Specifically, students reported greater engagement with resources such as Flash media, tablets and mobile devices, and various Web-based presentation software, as compared to teachers at similar middle schools. For example, 36 percent of MERIT students reported that their teacher frequently used Flash media to create audio-visual tools. Among comparison teachers, the rate was 13 percent.

In sum, the report affirms the findings of the previous report on the 2010 and 2011 MERIT programs: Teachers who have participated in the KCI's MERIT program have substantially increased their capacity to use technology that supports 21st century learning, and have developed roles as experts and collaborators within a broader community of educators.

The final report will be available in early 2015. To request a copy of the MERIT Program Evaluation 2012–2013, e-mail KCI Executive Director Gay Krause at [KrauseGay@fhda.edu](mailto:KrauseGay@fhda.edu).

### Microsoft/KCI 2014 Innovation Awards

*(continued from page 1)*

The youngsters then used computers and iPads to make videos to spread awareness about the atrocities happening in the world's rain forests and oceans.

In addition to participating in a read-a-thon that raised nearly \$2,800 to save the rainforest, the students used iPads with Haiku Deck to make promises of what they would do for International Dot Day. They also used iPads to film and edit their rainforest and ocean conservation newscasts.

Second-place honors were awarded to grades 4–8 teacher Gabriela Rios of Crittenden Middle School (Mountain View Whisman School District) in Mountain View for the Understanding Your School Project. The goal of the project was to give students an opportunity to practice Spanish and expand their knowledge of the language while engaging in a meaningful activity. To achieve this goal, students created videos in Spanish to help parents navigate teachers' websites, find Internet access around the school and contact teachers. "The project uses a real-life situation that is meaningful to their own families. This makes a big difference in their motivation, creativity and effort, since they know what they are creating is actually going to be used," Rios said.

The third-place award was presented to grades 7–8 teachers Catherine Kennedy (MERIT 2012) and Jennifer Austin of Dartmouth Middle School (Union School District) in San Jose for the Invention Proposal Project. Their students brainstormed, created and presented ideas for inventions that could improve their lives or the lives of others. Over the span of four months, students worked collaboratively and online, practiced grade-level language arts content, and honed skills in technology and collaboration.

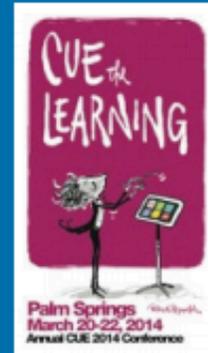
## Reflections from CUE 2014

Steven McGriff, Ph.D., the KCI's professor in residence, attended #CUE14, the premier education-technology teacher professional development conference on the West Coast, and reflected on the event. "More than 5,200 attendees from throughout California learned from hundreds of concurrent sessions on a range of topics about educational technology, including augmented reality, Twitter, Google, Microsoft One Note, as well as online media collaboration, creation, curation and cultivation."

Dr. McGriff was also impressed with the keynote addresses by Dan Meyers, LeVar Burton and Sal Khan. "Perhaps the best part of this paradigm-shifting conference are the outstanding, informal in-between-sessions, which yield meaningful networking conversations with educators from all grade levels and across all curriculum areas," he said. "I'm also impressed that this particular conference draws participation by school stakeholders from the full range of the hierarchical administrative charts."

As the Silicon Valley's primary resource for technology training and teacher professional development, the KCI's demonstrates impressive influence and impact at the annual CUE conference, which this year included:

- Presentations by more than 20 KCI MERIT graduates;
- Honored Rachel Diephouse (MERIT '13), recipient of the New Emerging Teacher Award (she follows last year's winner, Megan Ellis, MERIT '11);
- Announced the KCI as the newest partner to CUE's teacher professional development program; and
- Recognized as the Inspiration for CUE Rock Star Teacher Camps.



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#### Foothill-De Anza Community College District Board of Trustees

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# BLUEPRINT

## for Innovation

News from the KCI • Fall Quarter 2014

### KCI Plans Launch of Statewide Professional Learning Network

The Krause Center for Innovation (KCI) is excited to announce a new initiative to greatly expand its statewide role in helping educators provide superior learning environments for our children. The KCI, in alliance with Foothill College, will develop a professional learning infrastructure for California educators that will offer ongoing skill enhancement in educational technology; science, technology, engineering and mathematics (STEM) content; and proven transformative pedagogical practices.

The motivation behind the expansion is simple. Roughly half of California's K-12 students remain in need, both academically and economically. The good news is there are exciting new efforts underway to address this critical challenge, such as the state's adoption of Common Core standards and a focus on enhancing learning outcomes, not only in the traditional core subjects but also in 21st century learning and innovation skills. These skills include critical thinking, collaboration, creativity and communication. To ensure the success of these bold new educational initiatives, teachers will require a professional learning (PL) support system that enables them to effectively foster meaningful change in their classrooms. The KCI and Foothill College are in the unique position to implement such a system.

Our plan is to build an affiliation of regional PL providers trained by KCI, leveraging the California Community College system and collaborating with local county offices of education. Working with community colleges is a logical partnership: one of their core missions is workforce development, and they have a contract education infrastructure. County offices of education can provide training and curriculum development support, as well as help increase awareness at the K-12 level.

The goals for the plan include improving learning outcomes for the more than three million at-need students in our state. When the affiliate network is fully operational, we will be able to train more than 35,000 teachers annually. The next step is to secure funding to underwrite the launch. The seed capital necessary is a modest \$2.5 million. If you have suggestions or recommendations for foundations or organizations that we can reach out to, please call or e-mail me. Your assistance is greatly appreciated.

Regards,



Gay Krause, Executive Director  
Krause Center for Innovation  
Foothill College



## Enticing Teens with Technology & Hands-On Projects

More than 200 teens participated in KCI/Foothill-De Anza community education extended year classes this summer. Eleven classes were offered in subjects including coding, game design and development, and multimedia skills. These STEM-based technology classes were held in partnership with Cupertino Union School District. For four weeks, students attended daily classes to learn how to design multimedia presentations and code their own video games using object-oriented programming.

Teens were engaged in the development of clear and compelling communication using a range of multimedia, design and production skills. They became movie directors, art directors, coding directors, actors, camera and audio technicians, and editors. They created posters, documentary podcasts and cover spreads that were produced and delivered as PowerPoint presentations. The presentations were converted to video and shared on a variety of social media platforms.

Many of the students who participated in the programming classes were experiencing their first introduction to computer science. They

coded the games and digital projects using curriculum and resources developed by MIT and Carnegie Mellon departments of computer science. Problem solving and computational thinking were a part of the challenging activities.

Students were abuzz with enthusiasm and parents shared kids' comments with instructors: "Now I know just how I want to show everyone how to do the presentations for our school club next year." "These classes have given me so many ideas. This is great. I wish all of my classes could be this interesting and fun." "I got my game to work and I posted it on the Internet. My friends are playing it now. I never thought coding a game could be such a challenge and so much fun."

Parents were invited to the last day of class to see their students' work. Many parents attributed students' success to the hands-on approach where students were producers and creators taught by talented KCI instructors.

## FAME 2014 Draws Teachers from East Side Alliance Districts

### Teachers Unite for Common Core Math Standards

With the rollout and implementation of the new Common Core State Standards for mathematics, school districts are collaborating more than ever. In fact, to aid collaboration activities, eight districts in East Side San Jose have formed the East Side Alliance (ESA), with the support of the Silicon Valley Education Foundation.

Last fall, the KCI joined the ESA as a provider of professional development, specifically for the KCI's Faculty Academy for Mathematics Excellence (FAME) program. Now in its fifth year, FAME has become the professional development choice of teachers and administrators. FAME, which is based on Common Core standards, has become even more relevant as districts implement the new state standards for mathematics. The program provides professional development for 6th through 9th grade educators who teach pre-algebra, algebra and transformational geometry. FAME participants are also introduced to technology tools that support the teaching of mathematics, and they learn how to effectively integrate technology into their math instruction.

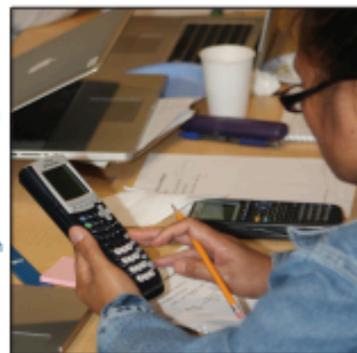
Four of the ESA districts, Alum Rock, Franklin McKinley, Oak Grove and East Side Union High School, worked with the KCI to recruit teachers for the FAME program. The ESA districts are also deploying more technology in their classrooms and training math teachers to incorporate technology as part of the math curriculum. Comprised of 32 teachers primarily from ESA districts, the 2014 FAME Summer Institute cohort learned new strategies to teach math, as well as exercise individual problem-solving abilities. An additional outcome

of the summertime institute included creating hands-on projects for students, the goal of which is to give students a better contextual understanding of how math is related to real-world and work-related issues.

The FAME program has been applauded by teachers, administrators and other educational leaders for its ability to model what the 21st century classroom should look like—a classroom in which students collaborate, create, communicate, and problem solve.

The FAME journey continues into the academic year during which time the 2014 cohort will complete four follow-up sessions for an additional 16 hours of professional development. These sessions are designed to assist teacher-participants implement instructional changes, build a professional learning community and address additional math content and technology topics.

FAME is supported primarily by grants from the Silicon Valley Community Foundation and the House Family Foundation. To apply for the 2015 FAME cohort, access [krauseinnovationcenter.org](http://krauseinnovationcenter.org).



## New Blended Program Development Debuts

### A Powerful Game Changer

What teaching approach is gaining more interest than traditional in-person or online options? The answer is blended learning. Often called hybrid learning, blended learning combines the traditional classroom experience with online instruction. The Sloan Consortium has defined hybrid courses as those that “integrate online with traditional face-to-face class activities in a planned, pedagogically valuable manner.”

Many MERIT and FAME graduates are experimenting with blended learning as they try flipping their classrooms by assigning students online content for homework. Students then learn at their own pace and class time is reserved for answering questions, engaging in discussions, coaching and hands-on project work. Although there is great buzz about blended learning, some early adopters report that they are lonely prophets in their schools and districts. One of the reasons is training: Many teachers are not comfortable trying out a new teaching approach without training.

KCI leaders are confident that a key strategy to help teachers embrace and gain confidence with blended learning is to have them experience it. To meet this need, the KCI is kicking off a program development effort to transform the FAME program from its 100-percent face-

to-face format to a blended format, in which part of the content is delivered online. The goal is to create a program that continues to promote collaborative work and is transformative in nature, but allows participants to review and learn content via online components.

To prepare for the program development effort, the KCI carefully documented the FAME 2014 Summer Institute. Besides videotaping all the direct instruction and some of the collaborative work, the KCI consulted with a math curriculum expert to document the program. The KCI has also engaged a Foothill math instructor, who is also an expert in creating online courses, to lead the development effort. Though in its early development stage, the KCI’s blended learning project is undergoing assessment of the various online content management platforms that can meet the project’s requirements. FAME leaders are also determining what content is best delivered online and what content and activities should remain in a face-to-face context. The KCI expects to test a beta version of the blended FAME program by Summer 2015. Registration instructions for the program will be announced later this winter. Follow the project’s progress by accessing the KCI website at [krauseinnovationcenter.org](http://krauseinnovationcenter.org).

## MERIT 2014 Update

The intensive MERIT 2014 summer institute kicked off with a cohort of 45 enthusiastic teachers from across the Bay Area. Representing 21 districts, some MERIT participants came from as far away as Petaluma, Watsonville, Pleasanton and Dixon.

During the two-week institute, participants were immersed in learning new technology tools to use in their classrooms. Even more importantly, they focused on how to use those tools to change their teaching practice, engage students and improve learning outcomes. The teachers were also given time to experiment and collaborate with their peers to develop projects they will implement during the 2014–2015 academic year. “All of the MERIT sessions were amazing. I very much enjoyed the collaborative time with other participants the most,” one participant said. “We were given time to explore and try out a variety of the tech tools that were introduced in an earlier session and learn from a wonderful team of lead educators.”

When asked what they valued the most during the summer institute, another participant said, “There are three components to the MERIT



program that were most valuable for my professional development: The instructors model best teaching practices, and this gave me time to think and reflect about how to run my classroom. There is so much value to be gained by being a student again—I will be more prepared to connect with my students. Lastly, the technology tools! I have a very long list of new instructional tools to engage my students with.”

*(continued on page 6)*

## MERIT Teachers on the Move: Cristina Bustamante

What do teachers who participate in the Making Education Relevant & Interactive through Technology (MERIT) or Faculty Academy for Mathematics Excellence (FAME) do when they want to continue their KCI program professional learning experience? They apply to attend another KCI program! Teachers who have completed one of our flagship programs are returning to participate in another professional development experience. For a second time, these teachers have completed the competitive application to win a seat in either MERIT or FAME.

One of the KCI's returning teachers is Cristina Bustamante, a middle school teacher at Ocala Middle School in San Jose's Alum Rock School District. Bustamante started her journey with the KCI as a participant in FAME's inaugural 2010 class. She then returned and secured a spot in the MERIT 2012 cohort.

When asked how her teaching style has changed as a result of her work in the MERIT and FAME programs, she reports a marked shift in her teaching practice. "Before participating in the KCI program, I had my desk in the front of the room where I was the focus of the lesson." She says that she relied primarily on a direct lecture style of instruction, which led to handholding her students through lessons. "I was afraid to let go and allow students to learn on their own." After participating in MERIT and FAME, she made learning the center of her classroom. Her students now use a variety of instructional technology tools to synthesize their learning. She has also created a collaborative classroom environment that engages students—where students want to learn and are excited about learning. "I'm able to reach more of my students because they have more learning choices, which allows them to find the best way to shine."

Her influence has transcended classroom walls. In 2012, she joined the FAME instructional team, which gave her the opportunity to instruct teachers from Santa Clara and San Mateo counties in math and technology concepts. In 2013, she was co-director, supporting

Program Director Cecilio Dimas from the Santa Clara County Office of Education. "I believe FAME is a strong program and I want to see it continue," Bustamante said. "FAME changed my teaching so much that I want to be part of making the difference with other teachers."



Cristina Bustamante

After two years on the FAME Instructional team, she was ready for a new challenge. Today, she is the program's director. "I've enjoyed seeing how the program works from my first days as a participant, and then as part of the instructional team. As program director, my goal is to ensure all of the critical pieces are in place and that the participants have a transformative, effective experience."

In addition to FAME, Bustamante has worked with the Santa Clara County Office of Education as a professional expert, providing math professional development to Santa Clara County teachers. She has also become a math coach for her school. "I enjoy working with teachers. I like hearing their stories and feeling their passion about the job and their classroom activities. I also appreciate the way they support each other and their willingness to spend part of the summer becoming better teachers for their students."

While broadening her impact by training other teachers, she remains focused on how her teaching practice can influence students. "As a result of changing how I teach, my students have a chance to be more engaged with their learning. They are learning skills that move them beyond standardized testing; they are learning technology and collaborative skills that will help them be more successful in college and in the workforce."

## KCI Conducts Five Summer Mini MERITs

After 12 years of refining the successful MERIT program, the KCI team has distilled MERIT's best practices and started working directly with school districts to provide Mini MERIT programs. Like the comprehensive MERIT program, Mini MERIT focuses on developing teachers' confidence and skill level by emphasizing collaboration, critical thinking, problem solving and creativity, all of which are supported by technology tools that increase teacher and student productivity and student engagement. Both programs fully support the Common Core and feature instructors with a passion for technology. Each Mini MERIT is tailored to meet a district's particular needs and goals for its teachers and is funded by the school or district. The program runs just five days, half the number of days of MERIT, and is still able to achieve a high level of teacher transformation.

The KCI tested its Mini MERIT concept in 2012–2013 with the Loma Prieta, San Bruno Park, Union and Moreland school districts. This summer, the KCI conducted five Mini MERIT programs for the Blach Intermediate School (Los Altos School District); Harker School; Moreland School District; Santa Cruz City School District; and Union School District. This was the second summer for Mini MERIT at Moreland and Union. Approximately 90 teachers participated in the summertime Mini MERITs.

At the end of each program, participants are asked to complete a survey regarding Mini MERIT and its effectiveness. Eighty-two teachers answered a series of questions using a scale of 1 to 5, with 1 being "very dissatisfied" and 5 being "very satisfied." High levels of satisfaction were reported across the five programs. For example, teachers were asked whether they learned technologies that they could easily deploy in their classrooms and 98 percent of the respondents gave favorable responses. When asked if the program helped them learn how to teach with technology, 91 percent affirmed they are more prepared to teach using technology. The hallmark of a professional development program is the participants agree that it met their professional learning needs. The KCI is proud to report 93 percent of Mini MERIT participants were satisfied or very satisfied with the program, and 93 percent also reported that the resources made available to them in the program are useful.

One of the key strategies of Mini MERIT is to structure the experience to encourage collaboration. Teachers not only learn new tools, they work on projects with their peers that they can then implement in the classroom. A Union District teacher said, "I was impressed with the collaborative energy that threaded its way through all of the presenters' offerings. Presently the [Union School] working model is based on teamwork, yet many of my students aren't proficient at promoting their own thinking in a harmonious way. The tools that were shared will facilitate this process. I'm eager to play a part in moving in that direction."

A Blach Intermediate teacher said, "As a teacher, it is encouraging and inspiring to see these fantastic new tools and how they can inspire students and deepen their learning, as well as observe how

this technology training has inspired my fellow colleagues to try new things. We've not only developed a new culture of trying new things to enhance our students' learning, but also a culture of collaboration and support for one another as teachers."

While teachers are eager to take their new and improved skills back to the classroom, district administrators also understand how the Mini MERIT program supports district efforts to implement the new Common Core State Standards. "Santa Cruz City Schools is fortunate to have had the opportunity to benefit from a Mini MERIT Academy in our district. The 19 teachers who participated left inspired with tools to better engage students and support their implementation of Common Core Standards," said Santa Cruz City Schools Superintendent Kris Munro. "Further, the connections the teachers made with one another across schools, grade spans and disciplines is enriching for our greater learning community."

The KCI will continue to offer Mini MERITs to schools and districts during the 2014–2015 academic year and next summer, with a goal to double the number of programs provided. One of the benefits of the program is that it continues to offer immersive professional learning, but requires less time than the standard 10-day MERIT program. Blach Intermediate School Principal Sandra McGonagle said, "I feel fortunate to have built a solid relationship with the KCI. I know that our professional development will be well planned, be of high quality, and, most importantly, inspire and encourage teachers to take risks, try new tools, put student needs first, and rethink the way teaching has traditionally looked."



### **MERIT 2014 Update** *(continued from page 3)*

Another participant commented, "Everything was valuable, but I especially appreciated learning how to integrate different tools and ideas in the classroom so students can use them to learn and create. I also loved getting so many recommendations and tips on a variety of resources that I can use with my students."

MERIT participants take a survey post-Institute as part of the ongoing evaluation of the program's effectiveness and quality. When asked if the Institute helped them learn how to teach with technology, 97 percent of the respondents agreed or strongly agreed. When asked whether the content was relevant to their particular instructional needs, 95 percent agreed or strongly agreed, and 100 percent indicated that the instructional team's knowledge on how to teach with technology was high.

Teachers leave the Institute inspired and ready to take what they have learned back to the classroom. One participant said, "I walked into the KCI a non-techie, and now I'm ready to train my colleagues."

The MERIT teachers will participate in an additional 24 hours of professional development during the academic year. During these sessions, they will share what they have been implementing in their classrooms and support each other. They also have the opportunity to continue to learn additional instructional strategies and tools. This year's MERIT teachers will graduate in late March and will have earned 10 continuing education units and a certificate of completion. More importantly, they will have formed relationships with other innovative teachers from our region that will continue well into the future.

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#### **Foothill-De Anza Community College District Board of Trustees**

Joan Barram; Betsy Bechtel; Laura Casas; Pearl Cheng; Bruce Swenson; Evelyn Chiu, Foothill Student Trustee; Melissa Epps, De Anza Student Trustee

Foothill College is committed to achieving excellence through inclusion and providing a climate that welcomes and promotes respect for the contributions of all students, faculty and staff. Foothill College does not discriminate against any person in the provision of any program or service based on age, ancestry, color, gender, gender identity, marital status, medical condition, mental disability, national origin, physical disability, race, religious creed, sexual orientation or veteran status. Coordination of Title IX of the Education Amendments of 1972 prohibiting sex discrimination; Section 504 of the Rehabilitation Act of 1973; and the Americans with Disabilities Act of 1990 governing accessibility is the responsibility of Student Affairs & Activities Dean Patricia Hyland, (650) 949-7241.

Produced by Foothill College Marketing & Communications Office • KCI 2942 • 10/2014

**APPENDIX D: 4 pages total - INNOVATIONS after Jan 9, 2015**

**KCI** KRAUSE CENTER for INNOVATION  
FOOTHILL COLLEGE

## Krause Center for Innovation



Our Growth Plan:  
21<sup>st</sup> Century Professional Learning for California

CONFIDENTIAL

**KCI** KRAUSE CENTER for INNOVATION  
FOOTHILL COLLEGE



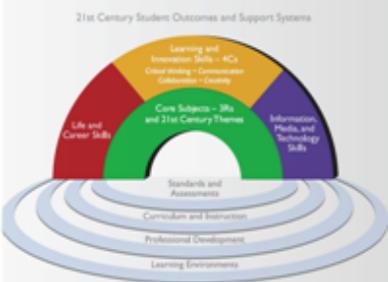
“This changes almost everything.”

-Dr. Michael Kvat, State Board of Education President

**KCI** KRAUSE CENTER for INNOVATION  
FOOTHILL COLLEGE

## Properly Implemented

- a rainbow of new learning outcomes



www.p21.org

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FOOTHILL COLLEGE

## Educator Reaction?



Enthusiasm.....and Anxiety

Implementing Common Core State Standards in California Public Schools for California Blueprint (PACB), June 2014

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## To Improve Student Learning

“Establish a strong infrastructure for ongoing high-quality professional learning...”



\*State Superintendent Tom Torlakson, Greater By Design, 2011

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FOOTHILL COLLEGE

## The KCI Plan

Develop a Statewide Affiliation of Community Colleges providing 21<sup>st</sup> Century Professional Learning for in-service K-14 educators



Training for K-12 Educators in Allstate Region

## Why Community Colleges?

### Mission Alignments



- Ongoing Workforce Development for In-service Educators \*
- Reduce need for Remedial Ed, increase focus on Transfer Ed
- Grow enrollment by better alignment w/ K-12 feeder districts

### Tactical Alignments



- Existing Processes - Contract Ed &/or Continuous Ed Units
- New Infrastructure: *Online Education Initiative*
- KCI-Foothill 14 year experience as proof of concept

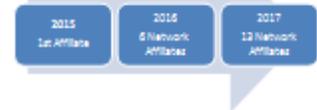
\* In CA 2550: [http://www.bs.pu/bs/current/bs\\_ca/term05-020](http://www.bs.pu/bs/current/bs_ca/term05-020)

## Statewide Coverage



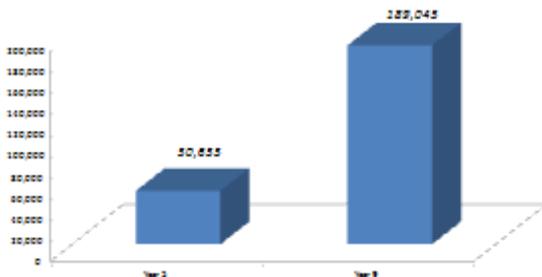
### Regional Affiliate Network Community Colleges – Workforce Development

#### TIMELINE



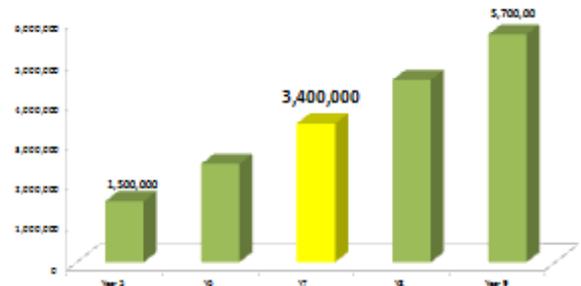
## Significant Impact

Educators Trained, Cumulative



## Sustainable Social Benefit

Students Impacted, Cumulative



## Transformational Professional Learning

*it's more than just Ed-Tech!*

- KCI Inspires Educators to be

Creative Problem Solvers  
Communicators  
Critical Thinkers  
Collaborators



## The KCI Solution



### Proven Instructional Vision

- Model 21st Century classroom environments
- Integration of Tech tools and processes
- Design Student-centered projects
- Develop Assessment strategies
- Cultivate Leadership skills

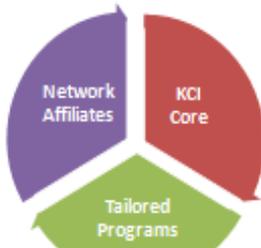
### With a Statewide Affiliation

- Ongoing & Extended training in tech skills
- Statewide collaborative resource
- Blended Learning environment
- Scale and Innovate

## 21<sup>st</sup> Century Programs

### Affiliate Learning Infrastructure

Blended FAME  
Blended MERIT  
New Programs  
Collaborations



### KCI Learning Center

MERIT  
FAME  
FASTtech

District Solutions  
Mini-MERIT, Mini-FAME, etc

## “Teacher Transformation”



Video

MERIT Alumni Comments

## Strategic Partners

### • County Offices of Education



- Trainers
- Curriculum Development
- Local Control Accountability Planning
- Local K-12 relationships

### • Large K-12 Districts & Alliances

### • UC & CSU Systems

### • Corporate Community – *Linked Learning*

\* In CA 2020: [http://www.bls.gov/oas/curren/cas\\_ca.htm#25-0-000](http://www.bls.gov/oas/curren/cas_ca.htm#25-0-000)

## Building a Statewide Team

### Affiliate Colleges

Foothill, Saddleback, Bakersfield, Butte, Chaffey, Cuyamaca, Cabrillo, Modesto, Santa Ana, Diablo Valley, Santa Rosa, Canyon, Santa Monica, Columbia

### Leadership Support

Dr. Michael Kirk – President, CA State Board of Ed  
Van 'Bn-Quinlivan – Vice Chancellor, CA Community Colleges  
Dr. Peter Landabeger – Chancellor, LA Community Colleges, Mod  
Karen Holst – Ed Tech Fellow, Jim Torfelson, CA Superintendent  
Dr. Bernadine Pong – Carnegie Foundation

### Strategic Partners

Santa Clara Office of Ed  
UC Davis – K200, UC Northridge – Einar Set

## Self-Sustaining Revenue Model

### SUMMARY of NET ASSETS

	Current	'11	'12	'13	'14	'15	'16	'17	'18	'19
<b>KCI</b>										
Assets	\$1,912,387	\$1,912,267	\$2,416,170	\$2,961,139	\$3,451,334	\$3,917,617	\$4,366,634	\$4,819,357	\$5,286,889	\$5,769,883
Liabilities	\$1,912,153	\$1,912,128	\$1,912,075	\$1,912,099	\$1,912,140	\$1,912,196	\$1,912,260	\$1,912,330	\$1,912,405	\$1,912,485
Net Assets	\$18,234	\$18,139	\$504,095	\$1,049,040	\$1,539,194	\$2,005,421	\$2,454,374	\$2,907,027	\$3,374,484	\$3,857,398
<b>Each Affiliate</b>										
Assets	\$152,290	\$171,000	\$248,000	\$324,000	\$400,000	\$480,000	\$560,000	\$640,000	\$720,000	\$800,000
Liabilities	\$138,826	\$161,928	\$209,980	\$269,980	\$339,980	\$419,980	\$509,980	\$609,980	\$719,980	\$839,980
Net Assets	\$13,464	\$9,072	\$38,020	\$54,020	\$60,020	\$60,020	\$50,020	\$50,020	\$50,020	\$60,020
<b>TOTAL ASSETS KCI + Affiliates</b>	\$2,064,677	\$2,083,267	\$2,664,170	\$3,285,139	\$3,851,334	\$4,397,617	\$4,926,634	\$5,459,357	\$6,006,889	\$6,579,883
<b>TOTAL LIABILITIES KCI + Affiliates</b>	\$2,045,679	\$2,074,056	\$2,121,955	\$2,182,079	\$2,252,120	\$2,322,176	\$2,392,240	\$2,462,310	\$2,532,405	\$2,602,500
<b>NET ASSETS KCI + AFFILIATES</b>	\$18,998	\$109,211	\$542,215	\$1,103,060	\$1,600,000	\$2,075,441	\$2,534,394	\$2,997,047	\$3,474,484	\$3,977,383

## Financial Need

### • Initial Seed Funding

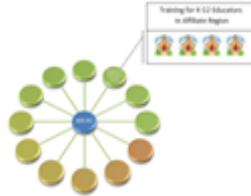
- \$2.5M (\$625K/year, first 4 years)
- KCI will seed each affiliate with \$50K and Endpoint Technology
- Underwrites initial content development, infrastructure build-out and affiliate training costs

### • Ongoing Revenue

- KCI and Affiliates offer Tailored Programs to schools/districts and retain earnings
- \$10K annual membership fee to continue participation in the network. Helps underwrite ongoing program development

## Plan Strengths

- Significant Impact
- Utilizes existing systems
- Mission alignment between K-12 & Higher Ed
- Pathway to financial self-sustainability
- 14 years experience in Silicon Valley
- Experienced staff in place
- Collaborative infrastructure
- Blended Learning



“The issue is not the standards...



...it's that teachers need training  
in using them effectively.”

—Dr. Bernadine Fong, Carnegie Foundation, Aug 2014

## Will You Join Us?

Our complete Growth & Implementation Plan is available upon request



**KCI** – Innovate, Educate, Empower

## Contact Information

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<https://www.facebook.com/KrauseCenter>

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## APPENDIX E: 1 page - REFERENCES for Section6: Impact on BS Degree Cost

California Community Colleges Chancellor's Office (2002). *Transfer capacity and readiness in the California community colleges*. Sacramento, CA: Enrollment Management Unit, Student Services and Special Programs Division, Chancellor's Office, California Community Colleges. Retrieved August 28, 2007 from [http://www.cccco.edu/reports/bbook\\_03/attachments/tab\\_2\\_cap\\_readiness.pdf](http://www.cccco.edu/reports/bbook_03/attachments/tab_2_cap_readiness.pdf)

Fry, R. (2002). *Latinos in higher education: Many enroll, too few graduate*. Washington D.C.: The Pew Hispanic Center.

Melguizo, T., Hagedorn, L.S., & Cypers, S. (2008). The Need for remedial/developmental education and the cost of community college transfer: calculations from a sample of California community college transfers. *The Review of Higher Education*, 31(4), 401-431

Shulock, N., & Moore, C. (2007b). *Invest in success: How finance policy can increase student's success at California community colleges*. California State University, Sacramento: Institute for Higher Education Leadership and Policy.

Wassmer, R., Moore, C., & Shulock, N. (2004). Effects of racial/ethnic composition on transfer rates in community colleges: Implications for policy and practice, *Research in Higher Education*, 45(6), 651-672.

## APPENDIX F: 4 pages total – Encouraging Innovation

### Gay Krause, Executive Director



Gay founded the KCI in Sept 2000 and has continued to play a vital role in the Silicon Valley K-14 educational community through developing, implementing and evolving her vision to serve K-14 educators in professional development activities. She led the effort to restore the former Space Science Museum at Foothill College into the fully equipped technology facility KCI uses today to serve educators, students and the community. Gay serves on the Board of Directors of the Silicon Valley YMCA, Children Now and the Foothill-De Anza Community College Foundation. In April of this year Gay was named Woman of the Year for California Senate District 13. Prior to 1998, Gay was a principal of both elementary and middle schools in the Mountain View Whisman School District. Gay served as teacher, middle school counselor, assistant principal and principal for 10 years. Gay received her B.S. degree from The Pennsylvania State University in education and special education, her M.S. degree from the University of Virginia in counseling psychology, and a credential in administrative leadership from San Jose State University and San Francisco University.

### Steven J. McGriff, Ph.D., Professor in Residence



Steve McGriff began his tenure as Professor-in-Residence at the KCI July 1, 2008. Steve previously served as assistant professor in the College of Education, Department of Instructional Technology at San Jose State University (SJSU) for six years. His experience teaching and mentoring educators in master's degree programs has prepared him to lead teacher professional development programs at the KCI. Steve designs and develops the KCI curriculum, manages KCI academic operations and closely collaborates with executive director Gay Krause to direct the KCI's mission as it grows into its second decade of educational technology excellence. Steve received his B.A. degree from Stanford University, an M.A., Instructional Technology from San Jose State University, and his doctorate in Instructional Systems from The Pennsylvania State University.

### Liane Freeman, Strategy and Marketing Director



Liane serves as the Director of Strategy and Marketing at the KCI. She works with the leadership team to develop and drive strategic initiatives, as well as the marketing/communications efforts of the organization. Liane is an experienced manager whose career has spanned software, energy, and education. Most recently, she held a number of management positions with Intuit, including Director of Information Management and Design, Small Business Division, where she led a team of 50 to significantly streamline and optimize customer interaction with the company. Prior to Intuit, she held leadership positions with the non-profit Electric Power Research Institute (EPRI) and was responsible for customer service and communications, product marketing, marketing communications, and account management. Throughout her career, she has managed cross functional teams working on large, complex projects. Liane has B.A. and M.A. degrees in English, as well as a teaching credential, from San Jose State University.

### Dean Martucci, Affiliates Liaison and Development



Dean joined the KCI as a 2013 Encore Fellow, focusing on architecting the Center's expansion initiative to offer professional learning programs to California communities beyond the Bay Area, with an emphasis on historically underserved school districts. He leverages his leadership and business development experiences gained from a career with both established and startup Silicon Valley hi-tech enterprises. Prior to joining the Encore program, Dean returned to school to complete an MBA in Sustainability Management at Presidio Graduate School in San Francisco, with the desire to better align his work-life with a personal passion for social and environmental renewal. He is a contributing author to "Evolutions in Sustainable Investing," published by J. Wiley & Sons Inc. in 2012, a partner with Environmental Entrepreneurs, a member of the International Society of Sustainability Professionals, and holds a BS in Physics from SUNY @ Stony Brook, NY.

### Gayle Britt, Instructional Leader



Gayle is currently a key member of Krause Center for Innovation (KCI) Instructional Team. For the last nine years, Gayle has been actively involved in teaching KCI courses and developing curriculum that aligns with the KCI's mission. Gayle is a former seventh grade teacher and currently trains teachers in developing projects using technology tools. For Oracle Education Foundation, Gayle trains teachers globally in student project design, using the Thinkquest tool. Holding a National Board certification in social studies, Gayle supports National Board candidates in the support group at Stanford University. Gayle was the lead instructor in the Merit Fellows program, and she also led the KCI/ Sonoma Unified School District Merit program in Sonoma, California. She has a master's degree in Educational Technology from Pepperdine University.

### Rushton Hurley, Instructional Leader



Rushton served as the MERIT Program Director at the KCI from 2010 through 2012. Rushton Hurley has taught at the high school and college level, been a school principal, worked with charter and traditional schools, and organized and run an online school. His graduate school background at Stanford includes exploring technology-enhanced learning through multi-media and speech recognition. Given Rushton's professional experiences and training and having built connections to interested educators around the world, he used his energy to establish Next Vista [[www.NextVista.org](http://www.NextVista.org)]. Next Vista works to make learning more engaging, with a focus on helping students start strong with any topic they study. Its central project is a free, online library of teacher- and student-made short videos for learners everywhere.

### Janet Davis, Instructor



Janet Davis is a member of the KCI's Instructional Team. Following her career as a Kindergarten teacher, Janet built educational web sites for NASA. She then became a Technology Trainer at De Anza College, and taught classes as a multimedia instructor. She became the manager for the Adobe Youth Voices Training Center at KCI, which was funded by a grant from Adobe Inc. She was recruited by Adobe to become an Adobe Education Leader, one of approximately 100 educators world-wide. She also travelled for Adobe demonstrating Photoshop at

educational conferences. She has also taught for Stanford Digital Media Academy. Janet has an M.A. degree in Instructional Technology from San Jose State University.

### Lisa Highfill, Instructor



Lisa, the k-12 Instructional Technology Coach for the Pleasanton Unified, has a passion for innovative learning strategies and actively works to share and collaborate with teachers, parents, and community members in order to improve the quality of education. She has presented at numerous conferences across California, sharing ideas to improve the way kids experience learning. Lisa is a Google Certified Teacher and a part of the inaugural group of YouTube Star Teachers. She is a lead learner for CUE and a part of the MERIT Staff at the Krause Center for Innovation.

### Kyle Brumbaugh, Instructor



Kyle is an Educational Technology Coordinator for a high school in San Jose, CA. He has been a Teacher, School Technology Coordinator, High School Administrator and Director of Technology in his over 20 years in Education. Throughout his career, Kyle has been an innovator in the use of technology in education, building a Technology Arts department at Capuchino High School. Capuchino's Technology Arts department, the first of its kind, served over 300 students daily, created the first course in Global Communications and has been used as a model in other schools and districts. In 2004, Kyle developed the "Digital Bridge" program that provided home Internet access to all 9th grade students on free and reduced lunch at Capuchino. In 2006, he applied and was chosen as one of the first Google Certified Teachers. Kyle is a CUE Lead Learner, providing professional development programs coast to coast and speaking at a variety of Ed Tech Conferences; including: ISTE, CUE, MacWorld, Lead3, CLHS and others.

### Elizabeth Calhoon, Instructor



Elizabeth is the Manager of Instructional Technology & Online Learning with the Santa Clara County Office of Education and was previously a middle school and high school site administrator, a new-teacher coach and an English Teacher and curriculum leader and developer. She is a Common Sense Media and CUE Lead Learner, Google Certified Teacher, Sony Education Ambassador, Leading Edge Professional Developer, and FableVision Ambassador.

### Steven Caringella, Instructor



Steve is a part-time instructor at Foothill College's Krause Center for Innovation. He has an M.A. in Education from Bethany University, and an M.A. in Instructional Technology from San Jose State, Steve has provided professional development in educational technology at the school and district levels, in addition to teaching FastTech classes at the KCI. Steve has thirteen years of experience in K-12 education, and is currently a Teacher on Special Assignment, Intervention and Technology, at Curtner Elementary School in the Milpitas Unified School District.

## William Cavada, Instructor



William Cavada has worked for over 12 years as a digital artist and media arts teacher. His design experience ranges from graphic communication to web design and video production. His teaching experience includes multimedia arts, yearbook, youth media and technology. He has for the past eight years been teaching at Mt. Pleasant High School, where he teaches the multimedia courses and coordinates the site's Adobe Youth Voices program. While running the AYV program at Mt. Pleasant, his students have had their films screened at Cinequest, MACLA, and at the Adobe Youth Summits in 2009 and 2010. He is also co-advisor to the award winning Cardinal Literary Magazine. He has for the past six years been an instructor at KCI, teaching courses in In-Design, Illustrator, Premiere and Flash. He studied art education with a concentration in conceptual art at San Francisco State University, earning a fine arts degree and continued his studies with a master's in Instructional Technology from San Jose State University.

## Michael Simkins, Ed.D.



Michael is a part time instructor with the KCI. Outside the KCI, Michael is the Consulting Director of Technology Information Center for Administrative Leadership (TICAL). From 1996 to 2001, Michael directed the Challenge 2000 Multimedia Project, one of the original Technology Innovation Challenge Grants funded by the U.S. Department of Education. Michael began his career as a kindergarten teacher in Lake Tahoe and went on to teach elementary school for 15 years there and in Agoura, California. Before taking his current job, he was an elementary school principal for 9 years. He worked in the San Luis Obispo area chairing the committee that wrote his district's first technology Master plan. His areas of interest include educational applications of technology, curriculum integration, and professional development.

## APPENDIX G, 6 pages – ENGAGING STAKEHOLDERS

### SMMARY TABLE of KCI STAKEHOLDER COMMUNITIES

Stakeholder	Examples
K-14 Teachers	Over 120 K-12 Bay Area Educators trained in 2014.
K-12 District Administration	See "Districts Served" Table in <i>Section 2, Students Served Profile. TICAL.</i>
Trainers	From KCI Alumni; Computer Using Educators ( <b>CUE</b> ); Int'l Society for Technology in Education ( <b>ISTE</b> ); NextVista.org
Advisors (partial list)	Ted Lempert – CEO <b>Children Now</b> Bernie Trilling – CEO 21st Century Learning Advisors Gina Dalma – SV Community Foundation
Donors (partial list)	Bill & Gay Krause, Morgan Family Foundation, Silicon Valley Community Foundation, Packard Foundation, Redderre Foundation, House Family Foundation, Microsoft, Rambus, Beljar Philanthropy, Neukerman Family Fund
Affiliate Community Colleges	<b>Foothill, Saddleback, Bakersfield</b> Butte, Chaffey, Cuyamaca, Cabrillo, Redwoods, Sierra, Diablo Valley, Santa Rosa, Canyons, Santa Monica, Columbia
Co. Offices of Ed	Santa Clara OoE, San Mateo OoE
UC & USC Systems	UC Davis REEd, UC Northbridge Eisner School of Ed.
Corporate Community	Microsoft, Cisco Systems, Silicon Valley Leadership Group, SV Tech Museum, Gooru
State Level Leadership Support for KCI	Dr. <b>Michael Kirst</b> – President, CA State Board of Ed <b>Van Ton-Quinlivan</b> – Vice Chancellor, CA Community Colleges Dr. <b>Peter Landsberger</b> – Chancellor, LA Community Colleges, Ret. <b>Karen Holst</b> – Ed Tech Fellow ,Tom Torlakson, CA Superintendent Dr. <b>Bernadine Fong</b> – Carnegie Foundation

 TECHNOLOGY

# Best Practices of EdTech PD

## The Intersection of Content, Technology and Pedagogy



By Gay Krause and Liane Freeman

Technology in the classroom is still controversial and some educators still question the benefits. After all, skeptics say, it takes capital investment to ensure that schools have Wi-Fi bandwidth and computers, tablets and other devices that are up to date and properly maintained. Then there is the question of appropriate use — how teachers and students use technology — so that exploration, content mastery, and demonstration of that mastery actually occur. With the advent of Common Core Standards, answering this question is even more critical.

It really becomes primarily a matter of professional development. Technology is more accessible and less expensive. Students are already immersed in using technology, and almost all future careers will demand technology proficiency. Using technology, however,

doesn't necessarily equate to constructive use of technology. This brings out the fear in many educators — how to appropriately use technology to engage students in deeper learning of content.

When considering the implementation of technology, schools and districts need to consider the professional development (PD) that must occur in parallel and the best practices well worth adopting.

One of the key lessons is that technology in itself is not the end game. Technology is only a means to achieve what wasn't possible in the classroom most of the last century. Technology can help unleash student and teacher creativity, which can lead to innovative projects and learning beyond what most students experience today. Student access to technology allows for more extensive research and access to expertise beyond the teacher. It opens a window into the global economy and cultures beyond a student's neighborhood, city, state or country. Many



devices and Web apps allow students to create information and projects that weren't possible in the past. Teachers and students can connect across the globe with others to work on joint projects. Teachers can virtually connect their students to experts. Students can create instructional videos for their peers, often making difficult concepts easy to understand.

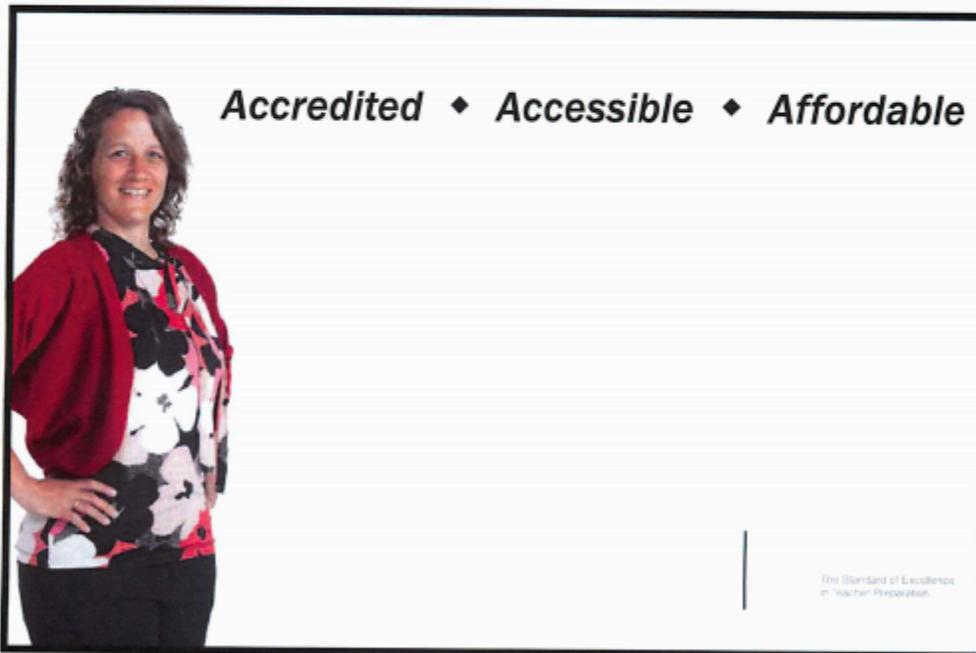
However, changing teaching practice is hard work, especially for educators who have little exposure to technology and who are comfortable with the stand and deliver lecture approach to education. It takes time, immersion, and support. Many of the teachers we work with have remarked that most of the professional development they receive can be equated to a drive by — one short session that leaves little imprint. Districts can significantly improve the outcomes they are seeking by recognizing that an immersive professional development experience can lead to teacher transformation. By providing 30-60 hours of intensive PD, Districts can provide teachers real time to learn, explore, collaborate and create. If we want to spark creativity in students, we should encourage creativity in teachers.

**“When considering the implementation of technology, schools and districts need to consider the professional development that must occur in parallel and the best practices well worth adopting.”**

Intensive PD programs allow educators to absorb and practice new approaches and skills. Immersion allows for the formation of a professional learning community (PLC) that will live long after the program is completed. Teachers have the time to practice the 21st century learning skills they are expected to teach — collaboration, critical thinking, problem solving and creativity. Follow-on

sessions during the academic year are also critical to support teachers in implementing what they have learned. We hear from teachers that the chance to collaborate and practice with their peers and colleagues is one the primary benefits of an intensive program since teaching can be such an isolating profession. Once collaboration is established, districts should consider employing online communities to help teachers stay connected well beyond the program. A number of free, collaborative educational Web platforms are available, and schools and districts that implement them are reaping the benefits of improved communication, collaboration and teacher productivity.

More importantly the immersion allows for providing a PD experience that models what a 21st century classroom can and should look like. Teachers collaborate and work on projects. They become students as they learn how to use technology to transform their practice by producing projects and content themselves. If educators stepped out of their school sites and visited some innovative companies, they would see a very analogous environment where people collaborate to



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create new products and solve problems. Creativity and innovation are often messy. We are not doing our students a service by keeping them in a traditional, rigid environment.

While educators participate in professional development, the real focus is students. Once teachers start adopting and using technology as an integral part of their curriculum, they become more comfortable with experimentation — they create collaborative, project-based learning environments supported by technology for their students. This can lead to gratifying and surprising results. Students become active learners and producers of content and information rather than passive consumers of lecture information, where memorization is the prized skill. They take ownership for their learning. Do you want to improve the quality of the work your students produce? The short answer is to give them a broader audience. Technology makes this possible. By implementing collaborative applications, students can collaborate, produce, and present to a broader audience. After teachers shift their practice, they notice

a marked difference in their students. Where before students would turn in work to the teacher — sole audience — that was “good enough,” now they strive for quality as the audience includes their classmates, school, and potentially the world as they post their work on websites that have global reach.

Ultimately, technology in the hands of a trained and talented teacher can help students “own” their learning and can encourage creativity. Technology can allow for differentiated or personalized learning — learning that is tailored to each student — and give real-time data about student progress so that teachers can adjust lessons as needed.

The operative word is “can.” Technology mastery does not replace content mastery. What comes with technology is a responsibility to use it appropriately so that glitzy apps don’t become this century’s mind numbing replacement for canned lectures and overhead transparencies. Schools and districts must also take on the responsibility to train students in digital citizenship, so that students not only understand the power of technology and

the Web, they also understand the pitfalls, including how to analyze and evaluate sources and content from the Web.

Providing professional development parallel to deploying technology is key. One of the worst things schools and districts can do is invest in technology without the corresponding investment in teacher professional development. Stories abound about the interactive white boards never used, computers gathering dust or locked away in a cabinet. The latest trend is to give teachers and students tablets, like iPads, and expect they will know what to do with them in an educational context. Why do we assume that by simply making technology available it will be used constructively? This is the real criticism about technology in the classroom. Most districts are not investing in training teachers to use technology to improve their productivity and increase student engagement, performance, and learning with the goal of providing a more personalized approach to learning. Train teachers first — they will then know what technology can do to support their students’ achievement.

Finally, administrative leadership and support provides backbone for the success of any professional development. This is doubly true for teachers integrating technology into curriculum and transforming their practice. Administrators need to see and understand how technology is being deployed in the classroom and overcome their own discomfort that comes with change. Some of the best outcomes we have witnessed are the result of a dedicated administrator who takes the journey with his or her faculty, who participates at some level in the professional development, and provides the support once their faculty head back to the classroom. They create an environment, while governed by common sense to protect students, provides reasonable access to the Internet and to the great wealth of free applications that are available to educators and students. They give their faculty the latitude to experiment. And they recognize that professional development is not a training event, but a process that pays huge dividends for students. 📌

*Gay Krause is the Executive Director at the Krause Center for Innovation. Liane Freeman is Strategy and Marketing Director for the Krause Center for Innovation. For more information, visit [www.krauseinnovationcenter.org](http://www.krauseinnovationcenter.org).*

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## KCI Advisory Board

As the KCI develops its business model to expand services more broadly within the Bay Area and California, the need for insight and sound advice from community partners and supporters has become evident. To answer this need, the KCI recruited a great advisory board that represents its stakeholders: educators, strategic partners, donors, and industry representatives. The purpose of the Advisory Board is to advise the KCI staff on educational and technological K-14 professional development needs; to offer advice, insight and assistance in shaping the KCI strategy and business plan to address program replication efforts; and to provide a forum to discuss and work collectively to meet current and future education workforce demands.

<b>Name</b>	<b>Position/Association</b>
Manny Barbara	VP, Silicon Valley Education Foundation
Shelley Brown	Advisor, Stanford School of Education
Julie Cates,	Education Consultant, Silicon Valley Social Venture Fund member
Gina Dalma	Program Officer, Silicon Valley Community Foundation
Bernadine Fong	Carnegie Foundation, former Foothill College President
David Foster	SVI Math CEO
Andrew Grinalds	Stanford Student (start-up, Computer Science field)
Rushton Hurley	MERIT Program Instructor, National Education Speaker
John Kern	Senior VP, CISCO
Ted Lempert	CEO, Children Now
Margaret Lim	Teacher
Judy Miner	President, Foothill College
Linda Moss	VP, NetApp University
John Mummert	VP Workforce, Foothill College
Tim Richie	CEO, Tech Museum
Art Swift	Industry start-up CEO
Bernie Trilling	Author, Education Consultant
Sarosh Vesuna	VP & General Manager, Meru Networks

## ***Technology in schools: Trained teachers can work magic with student achievement***

[http://www.mercurynews.com/News/ci\\_23814400/Technology-in-schools:-Trained-teachers-can](http://www.mercurynews.com/News/ci_23814400/Technology-in-schools:-Trained-teachers-can)

Special to the Mercury News Posted: 08/09/2013 02:00:00 PM PDT

By Gay Krause

Technology in the classroom is still controversial. It takes capital investment to ensure that schools have Wi-Fi bandwidth and computers, tablets and other devices that are up to date. Then there is the question of how teachers and students use technology so that content is not only explored but actually mastered. Can't we just continue to lecture at kids and have the same results that we did in last century? Can't teachers be the sole experts in the classroom? Can't we just do it the way we always have? The answer is: No.

The most important thing to understand is that technology is not the end game. It is a means to achieve what wasn't possible in the classroom much of the last century. Esther Cepeda, in her recent article "Why technology is the worst thing that ever happened to modern education," focuses on its downside, such as the worst practices of PowerPoint presentations. What she doesn't see is how technology can help unleash student and teacher creativity, which can lead to innovative projects and learning beyond what most students experience today.

Student access to technology allows for more research and access to expertise beyond the teacher. It opens a window into the global economy and cultures beyond a student's neighborhood, city, state and country. Many Web apps allow students to create information and projects that weren't possible in the past. Teachers and students can connect across the globe to work with others or directly reach experts. Students can create instructional videos for their peers, often making difficult concepts easy to understand.

Ultimately, technology in the hands of a talented teacher can encourage creativity and help students own their learning. It can allow learning to be tailored to each student and give real-time data about progress so that teachers can adjust lessons.

The operative word is "can." Technology mastery does not replace content mastery. What comes with technology is a responsibility to use it so that tools like the dreaded PowerPoint don't become this century's mind numbing replacement for canned lectures and overhead transparencies.

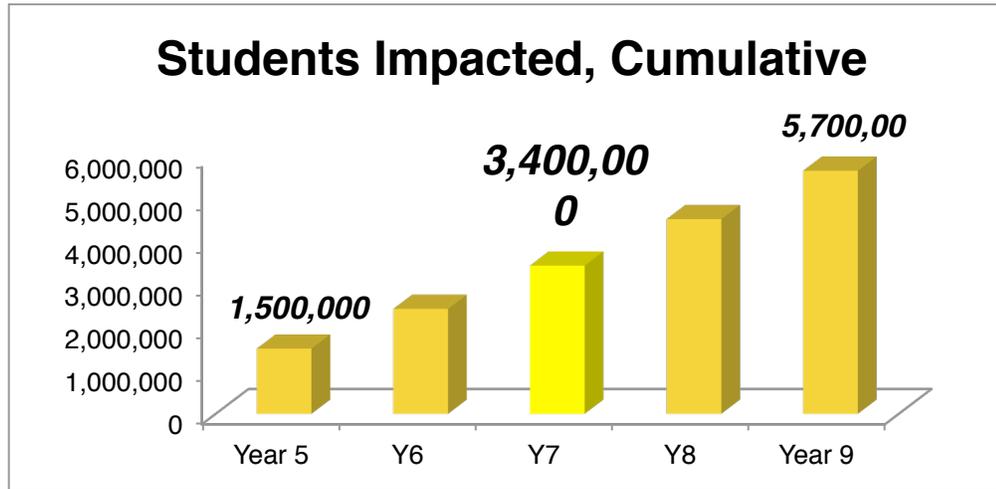
Teachers also must train students in digital citizenship, so that students not only understand the power of technology and the Web but also the pitfalls, including how to analyze and evaluate sources and content.

It is essential to train teachers how to use technology as a learning enabler. One of the worst things schools can do is invest in technology without investing in teacher professional development. Stories about interactive white boards never used and computers gathering dust abound. The latest trend is to give teachers and students tablets, like iPads, and expect they will know what to do with them in an educational context. Why do we assume that by simply making technology available it will be used constructively?

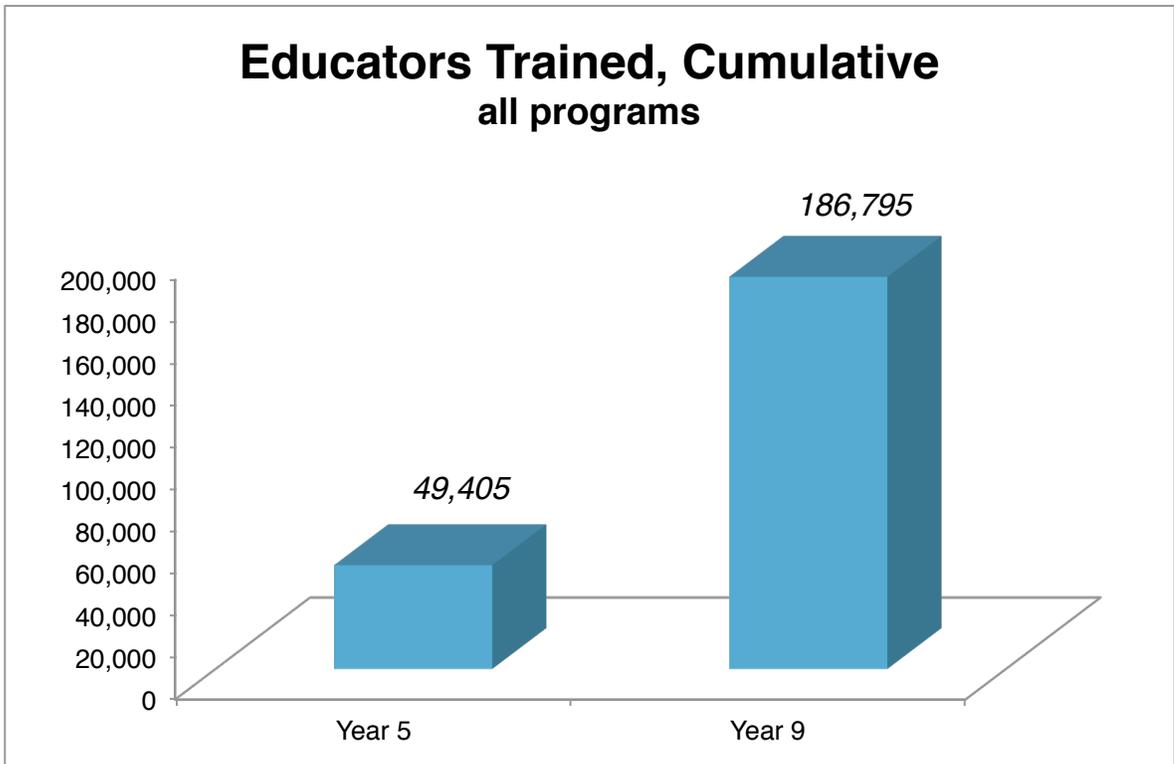
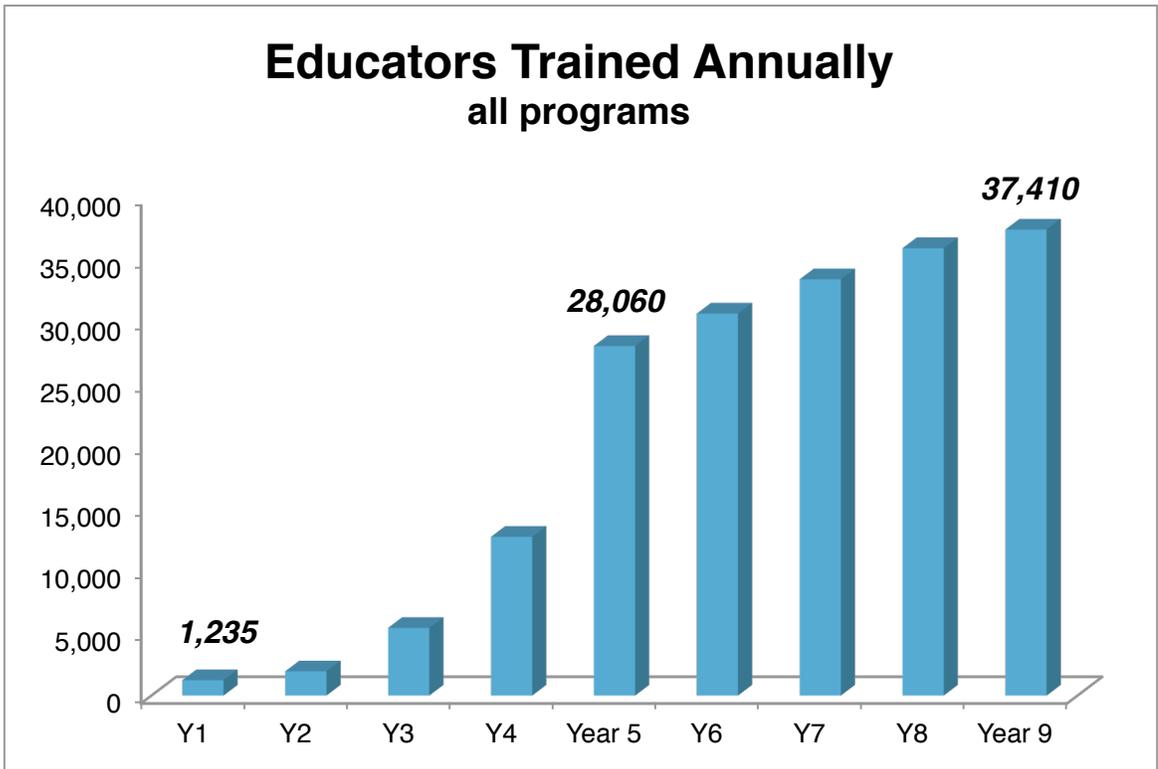
This is the real criticism of technology in the classroom. Most districts are not investing in training teachers to use it to increase student engagement and performance. Training teachers has to come first. I have seen the payoff over 13 years of providing professional development focused on changing teaching practice with the thoughtful, constructive use of technology.

Show me a teacher trained to integrate technology seamlessly into the learning experience, and I will show you a teacher who is inspired to try new and challenging projects in the classroom, and students who rise to the challenge, interpreting information in new and innovative ways.

## APPENDIX H, 10 pages total - Target Outcomes



KCI NETWORK SOCIAL IMPACT GOALS	Number of Teachers Trained									
	Y1	Y2	Y3	Y4	Year 5	Y6	Y7	Y8	Year 9	TOTALS
<b>KCI FOOTHILL</b>										
MERIT		45	45	45	0	0	0	0	0	135
FAME		40	40	0	0	0	0	0	0	80
Blended MERIT		0	60	60	360	720	720	720	720	4080
Blended FAME		0	60	360	720	720	720	720	720	4740
FASTech		750	750	750	750	750	750	750	750	6750
mini-MERIT		150	250	375	500	625	625	625	625	4400
Tech Specific		250	375	500	625	750	750	750	750	5500
Subtotal		1235	1580	2090	2955	3565	3565	3565	3565	25,685
Year 5 cumulative total					11,425					
<b>By All Year 2 Affiliates (1)</b>										
Blended MERIT		0	180	180	1080	2160	2160	2160	2160	12240
Blended FAME		0	180	1080	2160	2160	2160	2160	2160	14220
mini-MERIT		0	0	150	250	375	500	625	625	3150
Tech Specific		0	0	250	375	500	625	750	750	4000
Subtotal		0	360	1660	3865	5195	5445	5695	5695	33,610
Year 5 cumulative total					11,080					
<b>By All Year 3 Affiliates (6)</b>										
Blended MERIT		0	0	240	1440	2880	2880	2880	2880	16080
Blended FAME		0	0	1440	2880	2880	2880	2880	2880	18720
mini-MERIT		0	0	0	600	1000	1500	2000	2500	10100
Tech Specific		0	0	0	1000	1500	2000	2500	3000	13000
Subtotal		0	0	1680	5920	8260	9260	10260	11260	57,900
Year 5 cumulative total					15,860					
<b>By All Year 4 Affiliates (6)</b>										
Blended MERIT		0	0	0	0	4320	4320	4320	4320	21600
Blended FAME		0	0	0	0	4320	4320	4320	4320	21600
mini-MERIT		0	0	0	0	900	1500	2250	3000	11400
Tech Specific		0	0	0	0	1500	2250	3000	3750	15000
Subtotal		0	0	0	0	11040	12390	13890	15390	69,600
Year 5 cumulative total					11040					
<b>GRAND TOTAL, CUMULATIVE</b>					49,405	80,065	113,475	149,385	186,795	186,795



# ***Making Education Relevant and Interactive Through Technology (MERIT)***

## **Program Evaluation 2012-13**

November 2013



REPORT PREPARED BY:

## Overview

The Krause Center for Innovation (KCI) is a professional development center for K-14 teachers, headquartered at Foothill College in Lost Altos Hills, CA. Launched in 2000, the KCI's mission is to help teachers learn how to use technology effectively, both inside and outside the classroom, to better prepare their students for the modern workforce. The Center's focus on 21<sup>st</sup> century learning skills seeks to educate teachers on how to evaluate and use technology resources in ways that promote creativity and innovation, critical thinking, collaboration, and communication.

KCI supports three professional development initiatives:

- **MERIT:** *Making Education Relevant and Interactive through Technology*. MERIT seeks to help teachers from different grade levels and subject areas learn to evaluate and use various technology resources to enhance student learning,
- **FAME:** *Faculty Academy for Mathematics Excellence*. FAME seeks to develop teachers' content knowledge and technology skills in pre-algebra and algebra teaching.
- **FASTtech Classes:** Courses on specific topics at Foothill College developed by the KCI for K-14 educators.

### *MERIT Program*

The focus of this report is the MERIT program. MERIT describes itself as “research-based, educator development program designed to help teachers bolster their curriculum with student-centered, technology-enhanced learning activities to motivate, challenge and inspire the diverse learners and leaders of the future.”<sup>1</sup>

Each program year begins with an intensive two-week summer institute in July, and continues throughout the following school year until April. During the MERIT Summer Institute, teachers are introduced to a wide range of technology resources and teaching methods from MERIT instructors, and practice using new technology tools and collaborating with other teachers. During the school year, teachers continue to participate in the program by completing selected courses through MERIT or FASTtech, developing their own projects that incorporate technology, and attending professional conferences. Teachers receive other benefits from participating in MERIT, including continuing education credits and stipends for completing specific elements of the program.

In 2012, 45 teachers were accepted into the program after a review by MERIT staff of the quality of their applications. The applications required teachers to articulate their interest in and dedication to improving their instruction through the use of technological resources. Furthermore, teachers were required to submit a letter of support from their principal. As in previous years, the 2012 MERIT program accepted teachers from a variety of grade levels and subject areas.

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<sup>1</sup>KCI MERIT web site: <https://sites.google.com/site/kcimeritprogram/>

### Key Research Questions

The evaluation of the 2012 MERIT program was designed to answer the following research questions.

- 1) **Did the MERIT program enhance teachers' ability to integrate educational technology into their teaching?**
- 2) **Did the MERIT program enhance teachers' attitudes and confidence with respect to the use of technology in the classroom?**
- 3) **Did students of MERIT teachers observe and experience greater engagement with technology at school?**

## Results

### Teacher Sample

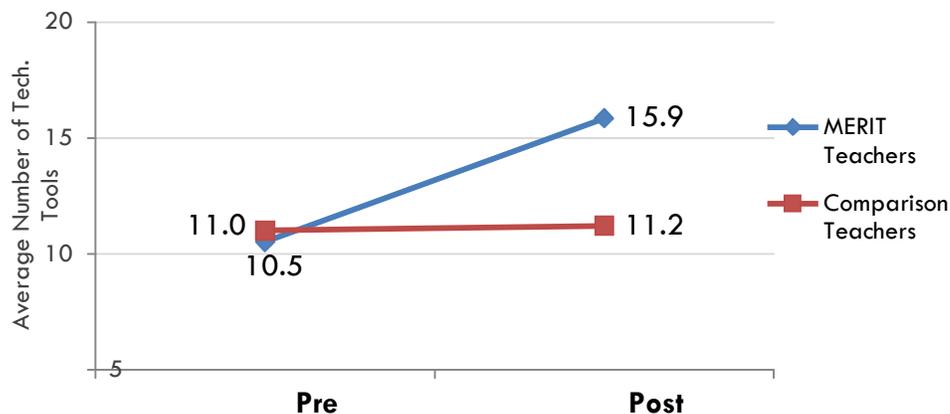
Twenty-six MERIT teachers and 21 comparison teachers completed both the pre and post survey. The MERIT and comparison groups were similar in both size and background; teachers in both groups had an average of 11-12 years of teaching experience.

### Teachers' Technology Skills and Expertise

#### Teachers' Skills and Expertise in Specific Areas

MERIT teachers reported that they learned an average of **five new kinds of technology** by the end of the program—a 50 percent increase from 10.5 to 15.9 tools. In contrast, the comparison teachers with no MERIT experience reported no additional technology expertise by the end of the school year (based on a list of 25 different technology resources on which teachers were asked to rate their expertise).

**Fig. 1. Number of Technology Tools in Which Teachers Reported Expertise\***



Source: 2012 Teacher Pre-Surveys and 2013 Teacher Follow-Up Survey. N=26 MERIT teachers & 21 comparison teachers

\*Expertise in technology with which teachers said "I rarely need help," "I never need help," or "I'm an expert and I help others."

Note: Repeated measures ANOVA shows that pre-post differences between MERIT and comparison teachers are statistically significant ( $p < .01$ ).

The tools for which MERIT teachers reported the greatest development from PRE to POST, which far exceeded the development reported by comparison teachers, were:

- Website development
- Online presentation software
- Open source web apps
- Multimedia production
- Podcasts

### *Teachers' Self-Assessment and Technology Profile*

At pre and post, teachers were asked to select one of four technology profiles that best described their overall level of expertise. At pre, most MERIT and comparison group teachers generally described themselves as either “Developing” or “Proficient” and three from each group described themselves as “Advanced.”

By the post-test, however, the number of self-described “advanced” teachers had jumped to 13 (50%) among MERIT teachers and remained at 3 among the comparison teachers. Overall, 17 out of 26 (65%) of MERIT teachers reported a higher profile level at post than at pre. In contrast, among the comparison group there was no net shift in teachers’ profiles

*Before MERIT...I had no idea how to use Google apps. I had never before made a single presentation to students or adults using any technology other than showing a DVD or downloaded YouTube clip.*

*This year, I made numerous presentations to teachers and students using technology tools including the iPad, Photo Story, iMovie, Google presentations, Poll Everywhere and other apps.*

**-- MERIT 2012 Teacher**

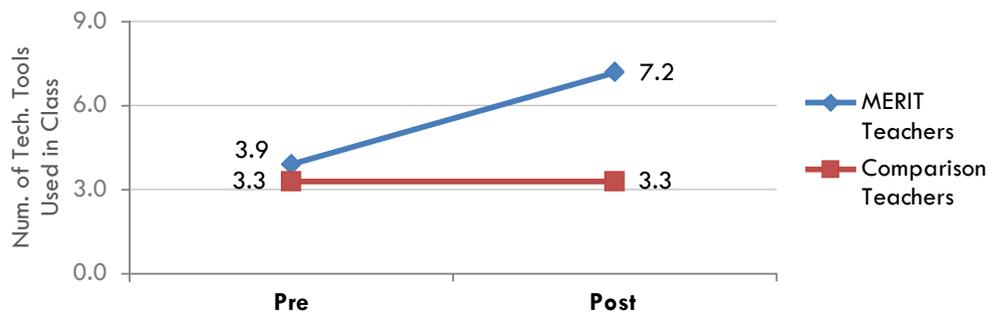
## Teachers' Integration of Technology and 21<sup>st</sup> Century Skills in the Classroom

### Frequency of Integrating Technology into Instruction

Teachers were asked how frequently they used 23 different forms of technology in their instruction during the previous school year (2011-2012 at pre, and 2012-2013 at post). The most commonly used types were similar for both MERIT and comparison teachers, and changed little between pre and post.

As shown in Figure 2, at pre MERIT and comparison teachers both reported using an average of 3-4 types of technology frequently (at least once per week). By the end of the school year, this number had nearly doubled (to 7.2 types of technology) for the MERIT teachers, but did not change for the comparison teachers.

**Fig. 2. Number of Types of Technology Teachers Used at Least Once/Week in Past School Year**



Source: 2012 Teacher Pre-Surveys and 2013 Teacher Follow-Up Survey.

N=26 MERIT teachers & 21 comparison teachers

Note: Repeated measures ANOVA confirms that average pre-post differences between MERIT and comparison teachers are significantly different from each other ( $p < .01$ ).

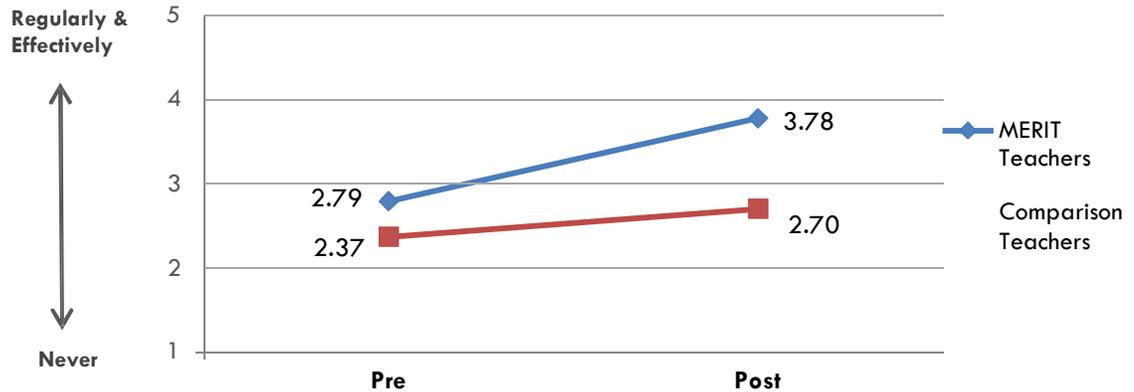
### Technology Integration of ISTE Standards

To understand teachers' practices related to the integration of technology for instructional purposes, the survey contained 10 detailed questions related to the ISTE NETS-T<sup>6</sup> standards. These are standards set by the International Society for Teaching in Education for evaluating educators' technology skills and knowledge. In the survey, each of these technology integration questions contained five answer choices. The wording of each set of answers was slightly differently for each question, but generally followed a pattern from no implementation to regular and effective implementation.

Figure 3 shows the change in the average score across all 10 questions for both MERIT and comparison teachers. While the two groups began with similar average scores, MERIT teachers' overall score increased by one point (from 2.78 to 3.78), while comparison teachers' overall score increased by only a third of a point (to 2.70). Among the 26 MERIT teachers who completed pre and post surveys, all 26 reported a higher average technology integration rating at post (100%), whereas among the comparison group 15 out of 21 (71%) teachers reported a higher rating at post.

<sup>6</sup> ISTE: International Society for Technology in Education. NETS-T: National Educational Technology Standards for Teachers (<http://www.iste.org/standards/nets-for-teachers>)

**Fig. 3. Change in Overall Degree of Technology Integration (Average of 10 Questions)**

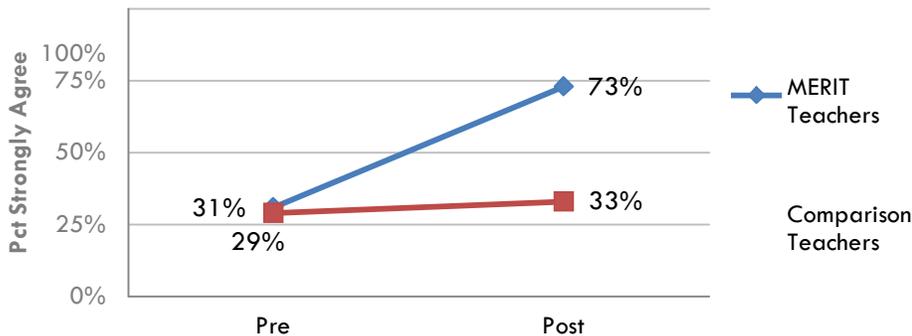


Source: 2012 Teacher Pre-Surveys and 2013 Teacher Follow-Up Survey.  
 N=26 MERIT teachers & 21 comparison teachers  
 Note: Repeated measures ANOVA confirms that average pre-post differences between MERIT and comparison teachers are significantly different from each other ( $p < .01$ ).

**Incorporating 21<sup>st</sup> Century Skills**

Figure 4 shows how MERIT teachers became more firm in their belief that they incorporated 21<sup>st</sup> century teaching skills into their curriculum. The percentage of MERIT teachers who *strongly agreed* that they incorporated 21<sup>st</sup> century skills grew from 31 percent at pre to 73 percent at post, whereas among comparison teachers the percentage remained virtually unchanged (29% to 33%).

**Fig. 4. Percentage of Teachers Who Incorporate 21<sup>st</sup> Century Skills into Curriculum**



Source: 2012 Teacher Pre-Surveys and 2013 Teacher Follow-Up Survey.  
 Note: N=47.  
 Note: Percentages reflect teachers who “strongly agree” that they “incorporate 21<sup>st</sup> century learning skills” in their curriculum. See Appendix 2 for data for all response categories.

### 21<sup>st</sup> Century Skills

Critical Thinking & Problem Solving	Communication
Creativity & Innovation	Contextual Learning

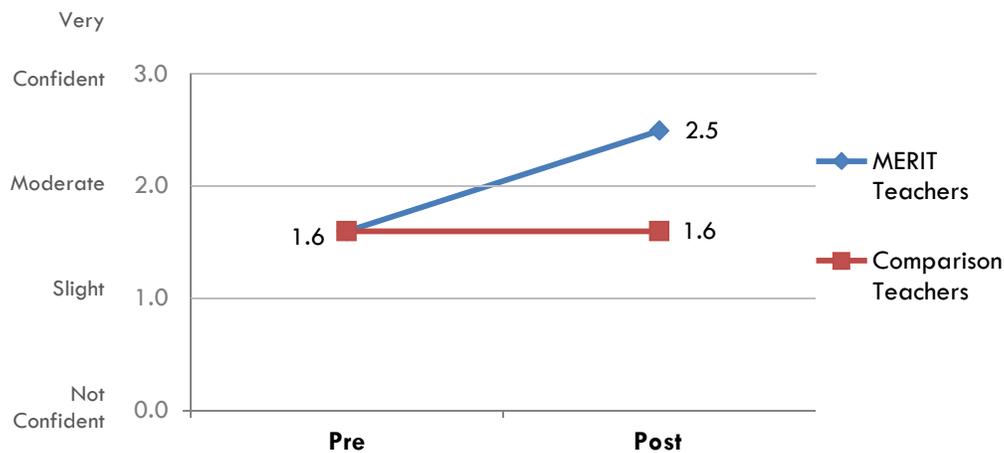
## Teachers' Confidence Using Technology

Based on four items surrounding teachers' confidence in their ability to use technology for educational purposes, MERIT teachers' overall confidence grew substantially over the program period (Fig. 5). On average, MERIT teachers grew from a "slight" or "moderate" level of confidence to between "moderate" and "very confident" – equivalent to a 30 percent increase, while among comparison teachers there was no observable change in confidence.

"I loved the variety of experiences that MERIT provided. It definitely gave me confidence to explore new technologies and integrate them into our subject lessons."

-- MERIT 2012 Teacher

**Fig. 5. Changes in Teachers' Confidence Using Technology**



Source: 2012 Teacher Pre-Surveys and 2013 Teacher Follow-Up Survey.

N=26 MERIT teachers & 21 comparison teachers

Note: Based on repeated measures ANOVA, the average pre-post differences between MERIT and comparison teachers are significantly different from each other ( $p < .01$ ).

Confidence ratings are based on four items, covering integration of new technology, assessing the utility of new technology, ability to create or enhance technology, and ability to contribute to or collaborate with a community of educators.

## Summary of Teacher Results

The results presented above demonstrate that teachers who participated in the 2012 MERIT program gained multiple new technology skills and approaches to learning through the use of technology, which they blended immediately into their regular teaching methods. They applied these skills in numerous ways—developing their own web sites, using online presentation software, and social networking tools, for example—and sharpened their focus on 21<sup>st</sup> century skills over the 2012-13 school year. In doing so, they gained confidence in their ability to assess, create, and enhance technology and to contribute to the broader community of educators on technology issues. A comparison of these results against those of a similar group of teachers who did not participate in MERIT supports the conclusion that such gains in skills, methods and confidence would not have occurred without the MERIT program.

When asked to assess their own overall level of expertise as users, consumers and assessors of educational technology, approximately half (n=13) of the MERIT teachers who completed pre and post surveys considered themselves "Advanced" by the end of the program – a four-fold increase from the start of the program. In contrast, the comparison group who considered themselves at roughly the same level as MERIT teachers at the start showed no change in their self-assessment during the same period.

## Conclusion

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**MERIT teachers became expert users in an average of five new technology resources by the end of the program.**

Overall, the results presented in this report indicate that the 26 MERIT teachers who completed surveys at the beginning and end of the program learned a host of new skills and immediately employed those skills in the classroom. On average, MERIT teachers gained expertise in an average of five new technology skills and resources, while a comparison group of teachers reported no change in expertise over the same period. Specifically, MERIT teachers gained the most skills in the areas of website development, use of online presentation software, open source web applications, and multimedia production tools (e.g., flash media).

**The most commonly cited tools that MERIT teachers learned to use:**

- Website development
- Online presentation software
- Open source web apps
- Multimedia production tools

Further, MERIT teachers reported that they were able to apply these skills in their regular teaching methods in numerous ways—developing their own web sites, creating their own interactive presentations, and taking advantage of social networking tools to communicate with students and other educators, for example. Over 70 percent of MERIT teachers also reported that they incorporated 21<sup>st</sup> century skills into their curriculum over the 2012-13 school year, a 40 percent increase over the previous year and 40 percent higher than the percentage reported by the comparison group of teachers.

By the end of the school year, teachers reported significantly greater confidence in their ability to assess, create, and enhance technology and to contribute and share best practices within the broader community of educators on technology issues. By the end of the program, half of the MERIT teachers sample considered themselves “Advanced” users of educational technology— a four-fold increase from the start of the program—while the other half of teachers considered themselves “Proficient.” Among the comparison group, there was no increase from the 14 percent of teachers who considered themselves “Advanced” at the beginning of the study.

This report affirms the findings of the previous report on the 2010 and 2011 MERIT programs: Teachers that have participated in the MERIT program have substantially increased their capacity to use technology that supports 21<sup>st</sup> century learning, and have developed roles as experts and collaborators within a broader community of educators. The consistency of these findings over the past three program years, which have now been bolstered by students’ observations and experiences, serves as a strong endorsement of the MERIT program’s impact.