California's Improving Teacher Quality State Grants Program Teacher-Based Reform (T-BAR) Master Grant Pilot Project: Early Outcomes and Possible New Research Directions

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Is T-BAR an effective vehicle for teacher and school change?

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The purpose of this document is to provide a summary of current T-BAR research activities and findings, and to highlight some of the more interesting practical and research questions that could be pursued. We believe that the research directions detailed here could be applied to any number of professional learning initiatives, particularly those deployed to develop and retain effective teachers and support student engagement and learning. Our conversations with T-BAR regional directors and researchers and review of the early research findings suggest that T-BAR, or a similar model, has the potential to continue to energize local educators and engage them as full partners in solving educational challenges in their local context.

T-BAR Background

The US Department of Education's Improving Teacher Quality State Grants Program (ITQ)[i] provides funding to states to support partnerships of postsecondary institutions and K-12 local education agencies (school districts, county education offices) that provide high-quality, sustained professional development to teachers, with the goal of improved student achievement. California[ii] uses these federal ITQ funds to conduct grant competitions and support initiatives that target improving the curriculum knowledge and instructional competence of California's teaching workforce.

California's 1994 ITQ grant competition, the Francis P. Collea Teacher Achievement Award Program (TAAP), differed from previous competitions in that the goal was to provide a small team of classroom teachers with 'seed monies' for designing their own professional learning plans linked to a school-based project. While TAAP was discontinued in 1996, an evaluation of the program concluded that "by linking professional development directly to school-based projects, TAAP was able to capitalize on each of these principles: teachers are more likely to learn those things that interest them; teachers are more likely to learn those things they perceive a need to know; and, learning is reinforced through use."[iii]

In 2009, California ITQ released a Request for Proposals (RFP) for the Teacher-Based Reform Grant Pilot Project.[iv] The goal was to adhere to the underlying principles that guided TAAP while scaling up the original model with a more efficient, regional approach to program administration. The T-BAR RFP stated three major program goals: (1) to provide support to teams of teachers in support of school reform; (2) to guide a more efficient, regional approach to program administration; and (3) to supplement that administration with a rigorous research program focused on teacher-based school reform.

For purposes of the competition the state was segmented into four geographical areas of roughly equal populations, with the intent to fund one Master Grant in each area. The T-BAR RFP solicited proposals from colleges and universities, who in partnership with a federally designated high need K-12 school district, would be responsible for managing the T-BAR Pilot Project within their designated region. The first two T-BAR Master Grants were awarded to the University of California, Davis/Humboldt State and the University of California, Los Angeles in 2009; the remaining two awards went to Chico State University and University of California, Riverside in 2010. Each Master Grantee was to be funded for three years, during which time they would serve a single cohort of teacher participants beginning in 2010 (TIIP and PacTIN) and in 2011 (T PD Inc. and SCRIBES) but augmentation funding released in 2011 and again in 2012 extended the project end date and allowed three of the regions to serve additional cohorts. See Table 1 for information about Master Grantees.

To date, T-BAR Master Grantees have been allocated over $9 million, most of which (approximately 70%) provides direct support for the professional learning activities of the participating teachers. Between 2009 and 2012 T-BAR served 749 teachers drawn from 99 districts; 41% of which are federally designated as high need. A conservative estimate is that 32,000 students have been impacted thus far. Participation numbers will change, as T-BAR activities are ongoing. The Project end date is slated for September 2014.

Research Approach and Challenges

T-BAR Master Grantees were required to address their approach to performing "research on the efficacy of T-BAR for both the individual teachers and their schools" as part of the funding application. As a result, each of the four Master Grantees has an identified research partner. During our T-BAR researcher convening, the participants provided brief overviews of their research plans and preliminary findings. Each of the research teams is looking at similar outcomes largely focused on the T-BAR models ability to influence (a) teacher professional development and growth and (b) school change, and to a lesser extent, (c) student outcomes.

All research plans included teacher surveys and additional qualitative data collection (e.g. case studies, portfolios, team reports) but the regional researchers each identified unique research questions and framed their research and data gathering activities in different ways. Rather than attempting to gather detailed information from all teams in their region most T-BAR researchers used a sample of Project Teams for their more intensive qualitative data collection.

California ITQ did not fund or require any state level evaluation or research activities and there were no common pre-identified outcome measures across the regions or projects, which may have resulted in missed opportunities for gathering outcome data. All of the Master Grantees mentioned that T-BAR might be under-resourced in that there are insufficient fiscal resources to adequately evaluate the project and support research activities, especially given the scale and complexity of the intervention.

The researchers noted two other challenges that likely influenced their research designs. First of these is that California ITQ adapted a regional approach to T-BAR project administration in a deliberate attempt to mitigate the challenges of serving a state the size and population of California (see Figure 1). Even so, the distances between project team locations necessarily limited researchers' abilities to directly interact with all the teams at their sites. TIIP serves a

single county but Los Angeles County covers 470 square miles and although applications came primarily from one school district, it is the second largest in the country, serving over 640,000 students in more than 1,000 schools. SCRIBES serves a total of four counties, PacTIN a total of twenty, and T PD Inc. a total of thirty-three.

Secondly, T-BAR is designed to be flexible to regional and local needs and responsive to contextual factors. Master Grantees were encouraged to develop similar operational frameworks but were given a lot of latitude within that framework to accommodate regional differences and the strengths of the institutional partners. Local Project Teams were purposefully selected for diversity in grade level and subject(s) taught, project goals, strategies, and various other factors. While this degree of diversity is viewed as a strength of the T-BAR model, it does make developing any systematic description or measures of outcomes challenging. In effect, there are as many different interventions as there are Project Teams (currently over 200) making it difficult to speak to the overall impact and outcomes of the T-BAR program, except in general and qualitative terms. It should be noted that despite the constraints, the researchers seemed to agree that reducing Master Grantees and Project Teams' flexibility in order to collect more comprehensive outcome data was not necessarily a good idea.

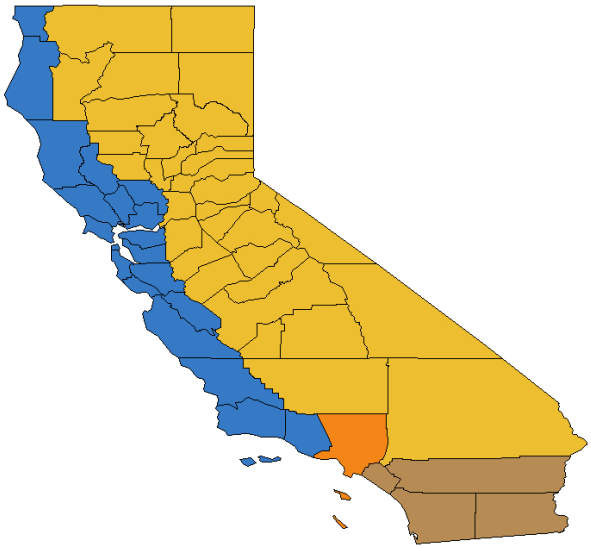
Early Outcomes

Despite the challenges and the fact that data collection and analyses are not yet complete, information regarding the efficacy of T-BAR is beginning to emerge. More detailed information and insights will be forthcoming in the T-BAR researchers' reports.

Researchers report increased confidence and self-perceived effectiveness among teachers, improvements in curricula, student learning and engagement, and improved leadership skills. Researchers also report that project participation provided a "rebirth" of teachers' enthusiasm for teaching. This is captured in their propensity to collaborate with other teachers, to engage in reflective learning, and in an increased sense of efficacy. There was also a sense that student centered projects often resulted in community building for the entire school, and sometimes the larger community (parents attending, etc.). While the researchers did not report on any direct measures addressing student outcomes, most felt that students of participating teachers likely experienced increased engagement and the development of specific skills and knowledge. See Table 2 for a synopsis of T-BAR preliminary research finding

T-BAR directors' perceptions are that some Project Teams have driven change at their schools and a few have far exceeded expectations. They report that Project Teams have had a positive influence on the broader school community in that the amount of time teachers engage in professional conversations has increased and more resources are being shared. Another positive change is that the team's projects provide administrators with an opportunity to recognize they have leadership on site and that all answers do not lie with outside experts. T-BAR directors believe that the initiative has the potential to encourage and build leadership skills and several offered examples of teachers who have taken on leadership positions because of their involvement with T-BAR. Citing anecdotal data, T-BAR directors also provided examples of tangible results in terms of student achievement.

Figure 1: T-BAR Regions



LA County = TIIP
Coast = PacTIN
Inland = T PD Inc.
South = SCRIBES

Table 1: T-BAR Master Grantees

PacTIN - Pacific Coast Teacher Innovation Network

Lead IHE: UC Davis School of Education CRESS Center
IHE Partner: Humboldt State University, Humboldt Science & Mathematics Center
LEA Partner: Pajaro Valley USD

http://teachergrants.ucdavis.edu

TIIP - Teacher Initiated Inquiry Projects

Lead IHE: UCLA School of Education
IHE Partner: UCLA Div. of Social Science
LEA Partner: Los Angeles USD

http://centerx.gseis.ucla.edu/partnerships-grants/tiip/

SCRIBES - Southern Counties Reform Initiative Benefiting Teachers and Students

Lead IHE: UC Riverside Education Extension
IHE Partner: CSU San Bernardino Chemistry Dept.
LEA Partner: Cochella Valley USD

http://www.extension.ucr.edu/scribes/

Teachers' PD Inc. - Teacher's Professional Development for Inland California

IHE Lead: CSU Chico, College of Communications and Education
IHE Partner: CSU Chico College of Natural Science
LEA Partner: Yuba City USD

Other: CSU Fresno, CSU San Bernardino; CSU Fresno, Central Valley Educational Leadership Institute; CSU Bakersfield, Dept. of Teacher Education

http://www.csuchico.edu/teacher-grants

Table 1: Synopsis of T-BAR preliminary research findings

	Data Collection (2011-2012)	**Reported impact on knowledge and skills of participating K-12 educators**	**Reported impact on student learning**
SCRIBES	Teacher Survey (post) backed up with needs assessment data Case study based on targeted sampling - focus group (4 sites)	More innovative curriculum and instruction being offered to students	Increase in student excitement, empowerment, and motivation
TIIP	Teacher Survey (pre/post) Web Portfolios – some of which include student work	Significant growth in teacher effectiveness based on the following constructs: Ongoing Learning, Collaboration, Reflective Practice, and Leadership	Increase in student behavioral and cognitive engagement, gains in knowledge, and better performance on in-class achievement measures
PacTIN	Teacher Survey (pre/post) Case Study based on targeted sampling -site visit group interviews (5 sites)	More confidence in a large range of instructional techniques Increased engagement in professional learning communities, in spite of already high rates of engagement Feeling validated in the work that they are doing with students and the instructional choices they make as professionals	Increase in student engagement and interest, skill level, questioning and problem solving, and depth of focused conversations
T PD Inc.	Action Research forum website (Teacher Surveys) Team Reports (annual)	Increased knowledge of how to conduct research and ask research questions. Developed skills to link data to practice.	Findings typically show positive results of interventions for students (most teams looked at annual achievement test data as a part of their evidence)

Promising Areas for Additional Research

At this point in time, the powerful narratives coming from the qualitative research data appear to provide the strongest indicators of the effectiveness of the T-BAR model. Given the uncertainty of T-BAR's future, our recommendation would be for T-BAR researchers to focus remaining efforts on those Project Teams that are thriving (e.g., those that received a third year of funding) as a way to delineate what teacher population this model might most benefit. For example, researchers noted that T-BAR benefits from being context-specific and responsive to local needs. Therefore, we recommend learning more about the types of school cultures in which T-BAR flourishes. For instance, which types of projects are potentially more effective models for school change in regards to encouraging diffusion of information (e.g. multi-grade level or multi-disciplinary vs. grade/content specific)?

While there are benefits to being able to tell a cohesive story, regional variations are part of what makes T-BAR an intriguing professional learning delivery model. California ITQ might want to determine how much consistency in measurement across regions is both feasible and desirable. One option for fostering more consistency would be to define several cross cutting outcome measures but allow regional variation in how they would be measured. Another option would be to require that all regions make use of a common instrument (such as the nationally vetted Schools and Staffing Survey) or that researchers collaboratively develop a common instrument for a subset of pre-determined constructs. Options for more fully exploring regional variations might include continuing to support current localized research efforts.

The preliminary work by T-BAR researchers suggests a number of potentially useful new research directions, including those described below.

Teacher effectiveness. T-BAR researchers are already exploring constructs associated with teacher effectiveness (such as collaboration, leadership, on-going learning, collegiality, and instructional efficacy). While we recognize the challenges in documenting and assessing instructional change and the impact of changes in classroom practice on students, we recommend that this line of investigation be continued, perhaps with a stronger focus on demonstrating the model's potential to actively engage and motivate teachers in ways that result in more knowledge/skills being translated into classroom practice.

Student engagement. A common theme, identified as both an area of student need and a desired outcome, across the Project Teams already participating in T-BAR is a strong interest in better engaging students. The T-BAR model presents an opportunity to learn more about the relationship between teacher and student engagement (e.g., Do students learn more from teachers who are actively engaged in their own learning process?). Research already being conducted by TIIP (rubrics being developed to assess web portfolios) and by T PD Inc. (rubrics being developed to assess effect of action research) seems to be highly promising. Devoting additional resources at either the state or regional level to activities such as the examination of student work, classroom observations, and attendance data could yield additional rich data.

Teacher choice. T-BAR researchers agree that there is a selection bias built into the T-BAR framework which attracts strong teachers but they also believe that this bias actually presents

an interesting opportunity to explore the impact of giving teachers autonomy to judge their own needs and those of their students. This context of choice may be critical to the model as the implication is that participants are process driven, knowledgeable, and have strong self- and team-identities coming into the program. Further, this bias could decrease the potential for the "this is just more work for me" mentality that is sometimes associated with mandated or administratively driven professional learning opportunities.

Sustainability (as a way to assess school change). T-BAR researchers believe that the model has the potential to encourage school change in that teachers who participate can demonstrate improvements that other teachers want to emulate. Our recommendation would be to expand on the case study narratives being collected by the current projects and researchers, and to begin to more systematically collect quantifiable outcome measures related to sustainability. These outcome measures might include: (a) attrition data including number of sustained projects (however that might be defined – e.g. as continued collaboration among the group, continued emphasis on the subject/goal of the project at the school site, etc.), (b) the number of teachers or groups that dropped out; (c) the number of teachers expressing interest in the work and related evidence of spreading/expansion to other classrooms; (d) documentation of dissemination of new knowledge/skills (e.g. number of workshops offered to other on-site teachers, number of conference presentations, and/or presentations to administration/school boards); and (e) number of teams pursuing/receiving other funding/grants.

Cost effectiveness. California ITQ might consider how to demonstrate T-BAR's cost effectiveness. Overall, it appears that participating teachers value the program but a better understanding of whether or not the money has been well spent gets at a larger policy question regarding the efficacy of statewide professional learning models. We recognize that this is challenging in that a common set of "effectiveness" measures would have to be established for any meaningful comparisons to occur. A simple approach is to look at costs per teacher or costs per teacher hour, simply looking at how many teachers can be served per dollar spent. Similarly, it might be useful to consider residual effects. Assuming that T-BAR results in positive outcomes, how long might those effects be reasonably expected to last? We do not support using standardized student test scores as the primary metric for comparisons, although it might be a component in a larger set of measures.

School culture/school leadership. T-BAR appears to demonstrate that leadership and culture change can be initiated and instantiated in multiple ways, including from the ground up by a group of dedicated and motivated teachers. One of the characteristics T-BAR directors linked to effective Project Teams is the presence of a supportive school principal. We recommend collecting data that might help answer questions such as: what happens when the administration shifts mid-project (e.g., a new principal), how do differing levels of buy-in contribute to meeting desired outcomes, and, in what ways are administrators able to leverage the activities of T-BAR Project Teams to meet school wide goals? We recognize that this is a "chicken and egg" question – teacher led change is both dependent on having an environment that supports this approach and has the potential to make the environment more supportive of this strategy.

Teacher retention. Anecdotal data collected by the T-BAR researchers suggests that participation in T-BAR has kept at least some teachers in the teaching profession. We recommend collecting additional data regarding the model's potential to help retain teachers,

as well as exploring the argument that it is resulting in the "right" teachers being retained. It might also be possible to collect information on teachers' career paths (e.g., leadership development; changes in teacher practice/trajectory over time). We think teacher retention is a promising cross cutting outcome measure to track systematically.

Conclusion

We suggest that the T-BAR model of providing modest funds to a self-selected group of teachers, who choose the problem they want to address and the manner in which they do so, may be a way to provide "opportunities for sustained, collegial PD of the kind that produces changes in teaching practice and student outcomes" and that is aligned with the growing consensus on what constitutes effective professional learning[v]. The fact that participating teachers contribute their own, un-paid time to engage in professional learning and translate that learning into classroom practice speaks volumes about the value of flexibility and teacher autonomy. For this reason we suggest a cautious approach to the establishment of any evaluation and research agendas or outcome measures that might result in a deviation from the underlying T-BAR principles: teachers are more likely to learn those things that interest them; teachers are more likely to learn those things they perceive a need to know; and, learning is reinforced through use.

In terms of the extent to which the T-BAR model fosters systemic, long-lasting impacts on teacher quality and student achievement, we do not yet have systematic or comprehensive data. When asked about whether the T-BAR model provides an efficient (cost-effective), regional approach to providing professional development to a statewide initiative, neither T-BAR directors nor researchers have definitive answers (neither do we) but these are issues that can and should be addressed.

Finally, we recommend careful consideration of how the T-BAR model fits within the continuum of professional learning opportunities and also of professional learning communities. This could be accomplished through a comprehensive evaluation study with cross cutting outcome measures, along with the development of a research agenda that looks at teacher agency and the mechanisms that can support and encourage teacher change using this type of model.

Acknowledgments

At the request of California ITQ, UC Davis generated several reports summarizing the T-BAR implementation process and early findings. The reports are available online at: http://education.ucdavis.edu/post/cees-projects.

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The views expressed in this document are those of the authors and should not be attributed to the California Department of Education.

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[i] ITQ is an initiative of the US Department of Education Title II, Part A of No Child Left Behind Act of 2001 (NCLB), as an evolution of the Eisenhower Grants Program.

[ii] California's ITQ State Grants Program was administered by The California Postsecondary Education Commission (CPEC) from its inception until 2011 when Governor Brown eliminated CPEC funding. CPEC was established in 1974 as the State planning and coordinating body for higher education by Assembly Bill 770 (Chapter 1187 of the Statutes of 1973), Education Code Section Education Code 66900-66906. In 2012 fiscal and administrative oversight of all ITQ grants and initiatives was turned over to the California Department of Education.

[iii] CPEC publication, Developing Teaching Professionals: The California Eisenhower State Grant Program Experience 1996-1998, "Assessing TAAP: Teacher Achievement Award Program." See also An investigation of the impacts of teacher-driven professional development on pedagogy and student learning. Colbert, J. A., Brown, R. S., Choi, S., & Thomas, S. (2008). *Teacher Education Quarterly,* Spring 2008. Pp. 135-154.

[iv] T-BAR Request for Application (2009). Sacramento, CA: California Postsecondary Education Commission.

[v] Darling-Hammond, L. (2009). *Powerful Learning: What We Know About Teaching For Understanding.* New York, NY: Wiley.