

Summary Report to the TxCETP National Visiting Committee
from the TxCETP Project Director
February, 2003

The Texas Collaborative for Excellence in Teacher Preparation (TxCETP) is midway through its anticipated 5-year period of NSF funding. A Third-Year Reverse Site Visit Review of the Texas CETP project is scheduled for April 10, 2003 at the National Science Foundation (NSF) Headquarters in Arlington, VA.¹ In anticipation of this review, we offer this Project Director's Summary Report and individual campus reports, to our National Visiting Committee (NVC) colleagues, and request their critical review.

Project Goals

TxCETP goals are to:

- (1) implement course reform integrating content, pedagogy, and classroom management across the ten partner institutions
- (2) recruit increased numbers of undergraduate students into science, mathematics, and technology teaching at the K-12 level
- (3) develop and implement programs that support and sustain pre-service and novice teachers; and
- (4) strengthen systemic reform connections between TxCETP and related efforts.

Snapshot of TxCETP Involvement, Year 2

- More than 180 science, mathematics, and education faculty from across the collaborative are involved as TxCEPT implementers and beneficiaries.
- More than 900 teachers were either TxCETP implementers or beneficiaries.
- 74 TxCETP Teaching Scholars
- 8 Noyce Scholarship winners

¹ The Third-Year Reverse Site Visit Review Panel will consist of approximately six people external to NSF, however, NSF staff will also be attending the panel meeting. The NSF will send the following materials to each of the panelists in order to familiarize them with TxCETP and its progress:

- * The description of the project as found in the Cooperative Agreement.
- * The Project Strategic Plan as amended in the third-year Annual Report.
- * The Summary of Project activities as submitted in the third-year Annual Report.
- * The most recent report of the National Visiting Committee and the NSF reports regarding the meeting of the Committee.
- * The third- and fourth-year budget and budget explanations.
- * The demographics submitted in the third-year Annual Report.

The remainder of this report addresses collaborative-wide progress made and concerns encountered relative to the TxCETP goals.

TxCETP Vision for Course Reform

A significant portion of the TxCETP Forum in May, 2002 involved the 58 participants in a multi-step process to explore the question, “how do we know when a course is reformed?”. The collaborative endeavor was facilitated by Dr. Carol Stuessy, a member of the Science Education faculty at TAMU. We developed a working draft of a “TxCETP Vision for Effective Learning and Teaching: An Instrument for Reflection” -- a document which has guided us in much of our program evaluation this year.

With leadership from Kirk Minnick, our project evaluator, we conducted faculty and student surveys during the Fall, 2002 semester, to determine if students were experiencing what faculty *thought* students would experience in their courses. The surveys used language parallel to the items in the TxCETP Vision instrument. Results from 50 faculty members and 1,115 students were variable, and are summarized in Table 8 in each of the campus reports. Kirk will present detailed findings during our NVC meeting. Copies of the TxCETP Vision instrument, sample faculty and student surveys, and a draft definition of TxCETP course reform are included with this report.

Lessons Learned from Inquiry Roadshow Efforts

The TxCETP Inquiry Roadshow (IR) has gone through several iterations, and in May, 2002, we thought it was time to again try to disseminate the IR to our campuses. The IR was designed to model inquiry for science and mathematics university classrooms. Campuses sent teams of several faculty members to the TxCETP May Forum. Participants included campus teams of Science, Mathematics, and Education faculty, along with colleagues from community college and informal education associations. When we have modeled inquiry components in the past, content faculty tend to jump ahead because they figure out where the investigation is headed. So, at the May Forum, we decided to pilot Mathematics inquiry pieces with the Science faculty, and the Science components with Mathematics faculty. This generated predictable comments from people who are outside of their comfort zone, and fueled some resistance to the process. We again recognized that in order to do an effective job modeling inquiry for colleagues, the presenter(s) must be steeped in the content, and participants must have appropriate background knowledge. While we have good introductory materials for an inquiry-modeling experience, we are still not comfortable with our method of dissemination.

We had scheduled a session in October, 2002 with Dr. Barry Kluger-Bell, Physicist from the San Francisco Exploratorium, to address next steps in the TxCETP inquiry dissemination process. Unfortunately Dr. Kluger-Bell cancelled at the last minute due to family illness, and our conversation with him has been postponed to early September, 2003. We would like to devote some of our time with the NVC to address future directions for modeling inquiry for our TxCETP colleagues. In light of the overwhelming success of the two workshops that we have experienced with the MID Multi-Initiative Dissemination (MID) Chemistry group, involving the MID staff in our May, 2003 Forum is an option that might work well. Our leadership would like TxCETP faculty to experience inquiry from outside experts, such as the MID faculty and the Exploratorium staff.

Recruitment and Support of Preservice and Novice Teachers

In addition to great recruitment and support efforts listed in our campus reports, two supplemental awards to TxCETP have had significant impact on recruitment, retention, and support of preservice teachers -- the TxCETP Teaching Scholars awards and the Robert Noyce Scholarships. TxCETP Teaching Scholarships were first awarded in Spring, 2002, and the first Noyce Scholars were identified in Fall, 2002. A total of 74 individuals have received TxCETP Scholarships, and 8 have received Noyce Scholarships during calendar year 2002. The TxCETP Teaching Scholar award (typically \$1,000 per semester) carries with it an obligation to be involved in campus TxCETP-related activities, while the Noyce Scholarship (greater than \$2,000 per semester) obligates the recipient to one year of teaching in a high-needs school for each semester of scholarship received. Two campuses have elected to use Level II funding for TxCETP Scholarships at an amount between \$250 and \$500 per semester. TxCETP campus leaders collectively agreed to make TxCETP Scholarships available to community college students who are committed to a Science or Mathematics teaching career -- the total of the awards to community college students will not exceed \$1,000 per TxCETP partner campus annually.

The Robert Noyce supplemental award also included a nominal amount (\$3,050) for each campus to compensate a mentor teacher for induction year teacher support. Dissemination of a pilot Master Mentor program will likely be scheduled later this year.

Systemic Reform Connections

True partnerships and inter-initiative collaboration is a genuine strength of TxCETP, in part derived from our close association with the Texas Engineering Experiment Station (TEES) Office of Research Development and Grantwriting. Project Directors of several NSF-funded initiatives (Texas Rural Systemic Initiative (TRSI), South Texas Rural Systemic Initiative (STRSI), and Information Technology in Science (ITS) Center) interact regularly, and co-sponsor events when appropriate. The TEES grantwriters helped us generate funding proposals for each of these projects.

Another Texas A&M System-wide reform initiative is the Regents' Initiative (RI) for Excellence in Education. The RI was funded for five years by the Texas Legislature in Year 2000 to address the critical teacher shortage in areas of science, mathematics, special education, and bilingual education. Each year, faculty are nominated by administrators on each of the nine A&M System campuses to be members of the Academy for Educator Excellence. Academy members may apply for Research and Fellowship opportunities, and several Academy projects have been fortified with TxCETP funding, as the goals of both the RI and TxCETP overlap considerably. Other components of the RI complement TxCETP activities on our campuses, including recruiting efforts, scholarship support, and the Academic Roadmap project that focused on high school-university standards-based curriculum alignment.

Faculty from across the collaborative have participated in every step of the process of designing new exams for teacher certification -- Texas Examinations of Educator Standards (TExES). TxCETP faculty have served on TExES Standards writing committees, Framework committees, test item review committees, and pass-rate recommendation committees. New certification levels, Early Childhood - Grade 4, Grades 4-8, and Grades 8-12, were a driving force for course and curriculum reform across the collaborative, especially the middle school certification.

Multi-Initiative Dissemination projects have been enriching experiences for many TxCETP faculty. The MID Chemistry workshop was offered at on the College Station campus for 51 participants in

January, 2002, and again on the Tarleton campus for another 45 participants. These intensive 1.5-day experiences have received rave reviews. Another NSF dissemination project, a week-long institute on teaching quantitative skills in the Geosciences, was offered during Summer, 2002 at Carleton College (MN) -- TxCETP sent five participants from three of our institutions. These experiences will be disseminated across the collaborative at the May Forum.

Seven TxCETP faculty participated in CETP Core Evaluation training on classroom observation protocols (COP). The one-day session provided participating faculty with observational tools and skills take back to the collaborative. All participating faculty were required to observe a minimum of three higher ed faculty and three K-12 teachers after returning from the workshop in order to provide information to the CETP Core as well as to implement what they had learned. A COP video instruction package was distributed to all 10 TxCETP campuses for use on their campuses in preservice teacher classrooms. Further dissemination of COP and the Geoscience workshop information will likely take place later this year.

The community of Informal Educators is linked with TxCETP in a number of ways. The Texas Informal Science Education Association (ISEA), a state-wide organization with hundreds of members, contribute standards-based curriculum materials to our workshops, and to preservice teacher organizations. Several ISEA members participated in and presented at the TxCETP May Forum last year, and offer training at their many facilities (e.g., parks, aquaria, zoos, and museums). The TxCETP Project Director serves on the ISEA Board, and has been involved in the design and implementation of ISEA sessions regarding funding and collaborative partnering with institutions of higher education. Most notably, the Fort Worth Museum of Science and History staff are dedicated partners with TxCETP as we forge ahead with helping college and university understand the nature of inquiry.

Project Administration and Management

In Year 2, TxCETP implemented Level II funding in an effort to broaden faculty participation on our campuses. We agreed to allocate approximately \$40,000 to each campus for specific projects related to the TxCETP goals. Response and participation has been varied, and projects are summarized in the campus reports. Projects are evaluated at the campus level, and forwarded to the Project Director for final approval. TxCETP management will likely ask the co-PIs to review all of the proposed projects and prioritize funding for Years 4 and 5.

Level II funding is also a method by which we can determine the amount of earned indirect that will eventually be returned to the campuses. TxCETP is set up so that the first \$200,000 of indirect earned each year is returned to the project as campus cost-share. The current plan is that indirect earned after the \$200,000 match is made will be returned to the partner campuses proportional to TxCETP spending and Level II funding activity.

Our Project Evaluator is the primary facilitator of our formative assessment of progress. Kirk Minnick's leadership in TxCETP has been instrumental in guiding our implementation of the TxCETP Vision instrument, constructing and interpreting student and faculty surveys, and facilitating a close examination of our TxCETP goals and strategies.

The TxCEPT website <http://www.sci.tamucc.edu/txcetp> is expertly managed by Isabelle Michaud. The website provides an easy registration procedure for meeting and workshop participants, and archives TxCETP events and documents. Web usage is documented at

<http://www.sci.tamucc.edu/txcetp/admin/usage/2001/>, and shows that over 700 individuals (IP addresses) accessed our site in Year 2001. In Year 2002, that number rose to over 1,900.

Data collection from our campuses continues to be a challenge. In Year 2, Harriet Lamm was hired to facilitate data collection, and has done an admirable job. Our greatest challenge remains the correct documentation of post-baccalaureate certifications received by our students and the correlation of what some have called “rogue” data sets on our campuses.

In August, 2002, the TxCETP office at TAMU-CC hired a new secretary, Amanda Carranco, who is excellent. Gracie Olalde is now able to concentrate on administrative and fiscal tasks, making our overall operation is much more efficient.

Reexamination of TxCETP Goals and Strategic Plan

Following through on last year’s advice from our NVC, at our last Campus Leaders’ meeting (January, 2003) we critically examined the TxCETP Goals and Strategies listed on our website at: <http://www.sci.tamucc.edu/txcetp/admin/documents/> (look in the last category under “TxCETP General Information”). Our four main goals remain the same, and we have a draft of suggested revisions of strategies under each of the TxCETP Goals. The draft of suggested revisions is included with this report, and will serve as a focal point for our Strategic Planning discussions.

Respectfully Submitted,



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