

TECC's 2005 Summer Institutes on Technology and Education

TECC successfully implemented three summer teaching institutes in China's Sichuan, Gansu, and Qinghai Provinces. Each project took place over roughly a 2-week period and emphasized technology usage and open English-dialogue in the classroom, drawing upon a combination of free print and web-based materials. With the support of local government and school officials and other nonprofits, TECC successfully implemented its projects in line with its mission of bringing together American and Chinese students to carry out social projects involving technology and education. This year's projects involved students from Tsinghua University, Peking University, Pudong University, Shanghai JiaoTong University, Hong Kong University, Hong Kong University of Science & Technology, Stanford University, UC Berkeley, and Lynbrook High School.

Sustained Impact:

Each program was designed to jumpstart a technology-based curriculum for students in the regional middle schools. The materials provided to the local teachers will be used to enhance school courses and college preparation at each middle school, and the focus remains on incorporating technology and practical teaching methods in the classroom. The program leverages existing computer classrooms at these schools to teach computer material and allow the teachers to better utilize this infrastructure. In addition to gaining familiarity with online education resources, program teachers learned to use basic applications such as Google Search, Microsoft Office, PowerPoint, and E-mail – all of which the potential for enhancing their efficacy as English teachers. Key to successful implementation is continued communication through TECC's site between the participating teachers and TECC student volunteers. Through a system of frequent, Internet-based contact with teachers, TECC enables teachers to pose questions, download curriculum, and communicate with TECC teachers at other middle schools.

The TECC website will also serve as a platform to bring together students for further projects and given the institute's framework, it is hoped that students will be driven to succeed in the program and create new projects involving technology and education. This year's TECC Institutes were organized by collaborative teams of students in the U.S., Shanghai, Beijing, and Hong Kong, and generously funded by institutions in the United States, Western & Eastern China, and Hong Kong.

A. Description of the need we are addressing:

In recent years, China has emerged as a driving force in the world economy and large cities along the eastern coast, such as Beijing and Shanghai, have fueled the prosperity. However, inland agricultural regions, which are home to approximately 70 percent of the population, have missed out on this economic growth and some regions still suffer from grave poverty. For example, an agricultural village in the Guizhou Province has a per capita GNP of only 2,463 Yuan (\$298), while industrial coastal cities, such as Shanghai and Beijing, have per capita GNP's 12.5 and eight times greater, respectively. This economic disparity represents a dramatic need for change and our project focuses on bridging this gap and improving the livelihood of the citizens

in the Gansu province. By educating teachers, we will impact students and catalyze the importance of education in today's society.

B. Measuring Impact:

TECC summer institutes are operated upon the premise that training rural instructors, as opposed to individual students, has a more sustainable impact on the local education quality. In 2005, TECC's combined summer institutes graduated 177 rural teachers, including 111 English teachers and 66 computer teachers. (Instructors typically teach classes ranging from 40-100 students, so an upward estimate would yield as many as 17,700 middle school students impacted in one school year.) Local students can expect to benefit from revised teaching methods that emphasize the use of Internet resources, live classroom dialogue practice, fresh printed resources, and practical test-taking strategies for subjects such as reading comprehension and writing. We can reasonably expect that students in Gansu will benefit greatly from the more than 4,500 books and magazines donated to their community library. Finally, 40-60 local students were able to participate in TECC's Life Forum, actively participating in open Q&A sessions that included advice on high school and college entrance exams as advised by students at leading Chinese universities. In terms of concrete skills, program teachers gained familiarity with applications such as PowerPoint, Google, Microsoft Office, and e-mail – all of which have the potential for enhancing their efficacy as English teachers. The program's ultimate beneficiaries are the area's hundreds of middle school students. English and computer skills are not only necessary for admissions into leading universities, but also vital for survival in social and professional contexts. By implementing these programs, TECC aims to boost the English and technology proficiency in these developing areas, preparing the students for tomorrow's challenges.

The locations at each of the sites (Gansu, Qinghai, and Sichuan) were each selected on the basis of having a strong computer infrastructure and supportive contacts with local government officials.

C. Project objectives:

1. Educate teachers and students on computer and Internet usage.
2. Narrow the cultural divide between Gansu / Sichuan / Qinghai, and developed China and the US, through teaching materials specifically addressing this topic and continued communication.
3. Bring qualified teachers to Beijing in order to increase exposure and cross-communication between Chinese capital and inland areas. Foster new relationships and friendships.
4. Require students who participated in TECC summer institute to post learning's and development to TECC website, as well as carry out regular online assignments.
5. Empower students to impact their surroundings.
6. Provide a platform for interaction between the coastal China, Hong Kong, inland China and the US.

D. Program Details:

Guang'an County, Sichuan Province – August 5th – August 17th

The Guang'an program trained 90 middle school teachers from the Sichuan Program, including 60 English teachers and 30 computer teachers. In addition, about 20 middle school students participated in the program's "Life Forum" discussions, in which TECC volunteers discussed a variety of topics ranging from academic advice to cultural differences in an open Q&A setting. The 17 TECC volunteers included 7 from Tsinghua University, 2 from Peking University, 2 from Stanford University, 1 from Pudong University, and 5 from Hong Kong Universities. TECC worked closely with the Guang'an Education Bureau in selecting teachers and coordinating the institute.

Gulang County, Gansu Province – July 19th to August 2nd

TECC visited the Gansu Province for a second consecutive year, after holding its pilot summer project in Gansu in July of 2004. 52 teachers signed up this year (up from 31 in 2004), including 31 English teachers and 21 computer teachers. The 13 student volunteers included 6 from Tsinghua University, 2 from Peking University, and 5 from Fudan University.

Xunhua County, Qinghai Province – July 22nd to August 4th.

TECC had the honor of partnering with the SOAR Foundation – a Bay Area non-profit providing scholarships to rural students – as well as the Xunhua Education Bureau in extending a third program to middle school teachers and students in the Qinghai Province. A total of 35 teachers participated in this project, of which 20 taught English and 15 taught computer skills. The 18 volunteers included 10 from Tsinghua University, 2 from Peking University, 2 from Shanghai JiaoTong University, 1 from Stanford University, 1 from U.C. Berkeley, 2 from Lynbrook High School in California. In addition, 10 local middle school students were actively involved in a lively "Life Forum" discussion section. As one Shanghai volunteer recalls:

“The students there showed huge interest in our talk, and actively raised all kinds of questions to us, about life, study, love, friendship. And our team members shared with them our own experiences and feelings, and gave them advice on things that perplexed them ... We all got the feeling that they are a group of energetic youths that are full of dreams and passion. Through their development may limited by their born conditions and environment, the optimism they have shown deeply moved us.”

E. Timetable:

2004

- August 28 – 29:** TECC Beijing Team hosted the first TECC Summit as an opportunity for members and representatives from Beijing, the U.S., and Hong Kong to formally review the 2004 Gansu Project, as well as hold discussions evaluating TECC's past and future growth strategies.
- September:** TECC established Skype, free Internet telephony service providing four-way conference calling, as a convenient way for international teams to provide weekly updates

on local progress and ideas. In place of individual e-mails, TECC created organized forums on Google Groups to facilitate communication within and between site teams.

- **September:** Moodle, TECC's project management system, and the TECC website <http://www.teccultures.org> were updated to reflect new information from the summer's events.
- **October:** TECC Beijing Team hosted a forum on West China's Secondary Education, inviting teachers who had shown strong performance and interest from the Gansu summer institute to speak with experts on education and representatives from top Beijing middle schools.
- **December:** TECC teams in the U.S., Beijing, Shanghai, and Hong Kong held on-campus recruiting drives to attract undergraduate and graduate students interested in TECC's cause.

2005

- **March 2005:** TECC established a partnership with the SOAR Foundation, a nonprofit granting scholarships and long-distance mentoring to rural Chinese students. The organizations drafted plans for a new teaching site in the Qinghai Province.
- **March – July:** TECC members in Beijing and Shanghai continuing the DSXS project obtained and transferred over 4,500 books donated from local publishing houses and middle schools. The books were sent to Need-a-Hand, a community library based in the Gansu Province.
- **April 16:** TECC US held an open reception in the Stanford Alumni Center introducing the organization and its mission to related organizations on and off campus. Student officers spoke with representatives from the Stanford Education Department, the SOAR Foundation, and professionals with a cross-Pacific focus. The response towards TECC was overwhelmingly supportive and positive, with several individuals pledging future support.
- **May:** Tony Luh, co-founder and managing director at Dragon Venture, a cross-Pacific venture capital firm that also offers related consulting services, joined the TECC Board of Advisors.
- **May:** Fenwick and West LLP, a law firm specializing in high-tech and life science corporate needs, joined the TECC Board of Advisors.
- **June:** Kathy Ku, Director of Stanford's Office of Technology Licensing (OTL) joined the TECC Board of Advisors.
- **June:** Director of Stanford's School of Engineering joined the TECC Board of Advisors.
- **May – July:** Phil Hubbard, director of the English for Foreign Students (EFS) program at Stanford University and specialist in computer-assisted language learning (CALL), advised the TECC US Team on tested teaching methods for international students.
- **June – July:** TECC finalized summer teaching teams and appointed student volunteer coordinators for its projects in Gansu, Sichuan, and Qinghai. Before meeting in Beijing, teaching volunteers at each of TECC's four sites shared ideas and curriculum materials via Google Groups, TECC's Moodle forum, and FTP.
- **June:** TECC Beijing Team assigned written personal statements to, and conducted telephone interviews with, middle school teachers in Sichuan, Qinghai, and Gansu as part of the application process for the TECC summer institute. The Beijing Team finalized the number of qualified participants:
 - Gansu: 31 English teachers, 21 computer teachers
 - Sichuan: 60 English teachers, 30 computer teachers, 30 local students
 - Qinghai: 34 English teachers, 10 Computer teachers, 20 local students

- **July:** Received funding from the SOAR Foundation, earmarked for student travel expenses and materials costs of carrying out projects.
- **July 19 – August 2:** Gansu Project carried out by 13 TECC volunteers from Beijing and Shanghai.
- **July 22 – August 4:** Qinghai Project carried out by 18 TECC volunteers from Beijing, Shanghai, and the U.S.
- **August 8 – August 17:** Sichuan Project carried out by 17 TECC volunteers from Hong Kong, Shanghai, and the U.S.
- **August 27 – 28:** TECC Leadership (from Beijing, US, Shanghai, and Hong Kong) met along with student volunteers from the various summer projects in Hong Kong for TECC's 2005 Summit. The teams reviewed summer projects, and shared challenges and suggestions for the 2005-2006 year.

F. Student Experience:

The following are remarks from TECC student volunteers involved in the 2005 summer institutes:

“For us volunteers, it’s a precious opportunity to get to know the education situation in western part of China, from the warm reception of local Education Bureau to the hospitality of local people; I can feel their strong thirst for education development. I know a teacher who took part in this program, she learned English just by herself for one year, but now she is undertaking the teaching task of two grades in her school. So the lack of teachers and the scarcity of good teacher could be the main reason that impedes their education development. So I do feel the urgency, as well as significance, for TECC to stretch our help to more poor regions and establish a long-term relationship with them. During the program, all the teachers are so kind and cooperative; they listened absorbedly in class and actively did all the work we assigned them. I should admit that their earnest attitude infected us and drove all our tiredness away.... The two weeks’ project did endow us much, both to teachers and volunteers, not only the knowledge and teaching techniques, but also love, cooperation and progress.”

“According to the survey we took before the institute and the communication with local teachers, we found that they exhibit more desire in improving their listening and speaking skills compared to reading and writing. We divided them into three classes according to their English proficiency. The high school teachers are nearly fluent in English, while most of middle school teachers barely able to express themselves verbally. So we can imagine that they just taught English in Chinese, thus it became a vicious circle that their students do not dare to speak English either. In the course of two weeks, however, nearly all of them showed marked improvement in listening and speaking, for example, it became much easier for them to manage the 3-minutues improvisational speech everyday, they can talk with American volunteers freely, in contrast to the situation that they can’t understand them at the beginning. It is said that confidence is the only secret that helps speaking English well, and I think it’s the best gift we have given them.”

“Beyond more superficial efforts at developing listening, speaking, and writing skills for middle school teachers, TECC’s English Curriculum team aimed to leave behind novel teaching methods that would benefit students long after the summer institute.... the debate and speech topics we gave them can all be used to make their class interesting and encourage their students to speaking English in class. Also, the reading methods and writing techniques we taught which would be helpful in taking the college entrance examination can be imparted to more high school students by their teacher. Furthermore, we have given them many resources in studying English such as newspapers, [magazines], Internet beside the textbooks, which can help to trigger the students’ interest and expand their minds.”

See 2005 Pictures in the Gallery section.

G. TECC’s 2005 DSXS Project:

With the generous support of several Beijing-based publishing houses and local high schools (affiliated with Tsinghua University and Pudong University), TECC collected over 4,500 educational books and magazines in spring of 2005, and shipped these to the Gulang County in Gansu Province. The books were organized and shelved in the town library at TECC’s Gansu Institute by volunteers from *Need a Hand*, a grassroots nonprofit (Website: www.needahand.org), and are now available to students and teachers free of charge. TECC hopes that the continuation of its DSXS project can significantly alleviate the lack of print materials in developing rural towns, and believes that these donations offer a valuable supplement to classroom lessons and Web-based education tools.

H. TECC’s 2005 Hong Kong Summit:

The 2005 TECC Hong Kong Summit was a 2-day formal discussion (August 27th – 28th) in which worldwide teams exchanged their ideas for future coordination in a rare face-to-face gathering of representatives from each of TECC’s participating universities. The keynote speech was delivered by Mr. Simon Lam, an education officer from World Vision – Hong Kong, and laid out the current situation of education in China. The two main components of the Summit discussions were:

Evaluation of the Summer Institutes

The focus of the Summit was a formal review and critique of the recent Summer Institutes. Participants from the 2005 sites openly shared challenges and solutions they encountered in working through TECC, rural accommodations and the political environment, and recommended adjustments for more effective site targeting in following years.

Evaluation of TECC Global Teams

The four represented teams (Beijing, Shanghai, U.S., Hong Kong) presented overviews of the regional team’s priorities, structure, and growth prospects. The ensuing conversations helped the participants to delegate regional responsibilities (fundraising, implementation of the DSXS book-

sending project, contacting rural education bureau, recruitment) for each site and propose a timeline for the following year

I. Instructor's Beijing Forum:

Several participating teachers from the 2005 Institutes will be selected based on exceptional performance and dedication during the Institutes to attend a forum in Beijing. The visit is intended to start long-term exchange between inland and coastal Chinese teachers, and the participants will have the opportunity to speak with top educators and field experts on challenges facing middle school education in China today.

J. Developments:

Our main objective in carrying out this project was to increase computer and Internet usage and English skills among teachers and students in inland provinces through a series of teaching modules taught by teams of Chinese and US students at 2-week summer institutes. The aim is on post-Institute education – for selected teachers in English and technology to work together in spreading their knowledge of the Internet to their students, so that by leveraging the wealth of materials available on websites, students and teachers will have the means to better compete in an information-based economy. Throughout the Institute, TECC officers constantly reinforced its core purpose with the teachers, and collected structured feedback on the class content. Here, the participants pointed to particular teaching methods that they had observed and thought applicable, often noting that the “open forum” class atmosphere promoted dialogue and active participation. Over the course of the Institute, the teachers grew increasingly receptive to new teaching methods, and many demonstrated these and other ideas in their final presentations at the Institute’s conclusion. Additionally, graduates of the English program showed marked improvement in speaking and listening abilities, and all participants were taught introductory courses on PowerPoint and Internet research.

TECC is excited about the impact it was able to have this summer through its three student projects, and hopes both to expand its influence and build upon valuable local support by continuing involvement at all three sites. A formal evaluation of each of the summer institutes is in the process of being completed by the TECC US Team, and the results will help to shape and improve TECC’s future projects.