

Living and Learning in a Global Community

by

Ann I. Nevin, Ph. D., Professor Emerita, Arizona State University & Visiting Professor,

Florida International University, Miami, FL

Mary M. McNeil, Ed. D., Professor, Plymouth State University, Plymouth, NH

Jaime Kellogg, M. Ed., Teacher Counselor, Plymouth State University, Plymouth, NH

Evaluation Results of the 2005

Plymouth State University Pakistani Teacher Training Institute

Plymouth, NH

Abstract

The authors present the results of a comprehensive evaluation of a model program co-sponsored by the Plymouth State University in New Hampshire, the Pakistani Ministry of Education, and the US State Department Office of Cultural Exchange, Bureau of Educational and Cultural Affairs. The evaluation included interviews with program planners, directors, funding agents, faculty, participants, and community members. The results indicate the achievement of an enhanced capacity on the part of Pakistani teachers and administrators who observed, experienced, and practiced activity based learning, cooperative group learning, incorporating local community resources and heritages into the curriculum, collaborative teaching and leadership, English as a Second Language methods, and authentic assessment methods such as oral presentations. As a result of attending the 5-week institute on the campus of Plymouth State University (PSU), Pakistani school administrators, teacher trainers, teachers became newly inspired and skilled to implement effective active learning instructional practices. In addition to enhancing participants' subject knowledge, pedagogical skills, and dispositions towards new ways of teaching, the Pakistani Teachers Institute represents an example of a village-to-village model for educational and cultural exchange.

Imagine you are a teacher traveling halfway around the world, leaving your home and family to join a group of strangers for five weeks of study. Imagine meeting others who do not speak your language and who struggle to understand your English accent. Imagine collaborating with experts from your own country whom you are meeting for the first time, some who come from remote areas of your country and who have very different customs than your own. Imagine, however, that you are united with them and your hosts in the goal of improving the education of children in both the USA and your own country. If you can imagine this, then you can empathize with the 20 people from Pakistan who traveled to Plymouth New Hampshire for a 5-week cross-cultural exchange funded by the U.S. Office of Cultural Exchange, Bureau of Educational and Cultural Affairs and the Plymouth State University community (McNeil, 2005). In addition to enhancing participants' subject knowledge, pedagogical skills, and dispositions towards new ways of teaching, the Pakistani Teachers Institute represents an example of a village-to-village model for educational and cultural exchange.

Who Are the Participants?

The 20 participants (3 men, 17 women) in the 2005 Pakistani Teachers Institute represented the wide diversity of Pakistan (5 from Sindh area, 6 from Baluchistan area, and 9 from Panjab area). Rural and urban areas were also represented: 4 from Quetta in western Pakistan, 6 from central Pakistan; 7 from northeastern Pakistan; and 3 from southeastern Pakistan). They represented all aspects of Pakistani geography and cultures: Baluchistan is rich in natural resources yet poor economically; Lahore is the cultural center of Pakistan; Multan is the ancient city; and Karachi is a major port.

They ranged in age, as well, with 3 between 18-24, 7 between 25-35, 7 between 36-45, 2 over the age of 46, and 2 who chose not to reveal their ages. The participants reported that they were responsible for multiple subjects (11 taught math, 12 taught science, 2 taught English literacy, 1 was an administrator, and 3 taught English as a Second Language. Their roles included teacher (N=11), teacher educator (N=9), administrator (N=8), teacher trainer research associate (N=1), and master trainer (N=1).

What Did Participants Bring to the Institute?

This is a well-educated group of people. All held Bachelors degrees, some in multiple subjects (1 in statistics, 2 in mathematics, 1 in economics, 2 in Education, 1 in English Education, 1 in computer science, 1 in biochemistry, 2 in biology 6 in zoology, in botany, 4 in chemistry, 1 in applied physics and 1 in physics. Many had earned advanced degrees as well: Masters of Science in Education in biochemistry (1), education (2), biology (2), general science, chemistry (2), administration, evaluation. Several had earned an M.Ed. (in Education, Irrigation and drainage, English or an M.A. (education and special education, English (2), Urdu, education 3), Islamic studies (2), history , economics (3), sociology, botany, commerce, mass communication, administration (2), and teacher education. One is an admitted candidate for a doctoral degree, and one is a master trainer of elementary school teachers in the sciences.

Moreover, they reported that they had many years of experience. Nine participants have been teaching between 0-5 years, 4 between 11-20 years, 5 with more than 21 years of experience (and 2 chose not to respond to this item). In summary, the participants were a well-educated, knowledgeable, and experienced educators.

What Did PSU Community Offer?

Plymouth State University (PSU) offered an intensive summer institute for teachers, teacher educators, and school administrators in Pakistan who were working in the field of secondary education. Plymouth State University has national, regional, and state accreditation and is a recognized program in New Hampshire for teacher education. Every summer, PSU enrolls many graduate students from the American International Schools and the Department of Defense Schools in Europe, Asia, Australia, and Saudi Arabia. The purpose of the Pakistani Teachers Institute is to enhance the knowledge, skills, and dispositions of teachers and administrators in education. The program provided an opportunity for students to select a strand of professional development that would enable them to concentrate on best practices in education. The strands were mathematics and science curricula and English (linguistics and teaching English as a Second Language) and Collaborative Leadership. Every candidate completing the assignments for a strand received a certificate of study recognizing their quality work in this specialization.

All members of the Pakistani Teachers Institute participated in Heritage Studies, with its emphasis on heritage issues and education, served as a bridge between different cultures and histories. With its interdisciplinary foundation and its emphasis on culture and history, Heritage Studies provided a mechanism for enhanced teacher training in a cross section of subjects wherein teachers were shown how to include reading and writing skills. With the addition of a focus on local heritage issues, teachers can access readily available resources for use in the classroom (e.g., the local landscape, local buildings, local art).

Differentiated instruction was achieved by structuring a variety of instructional strands. Approximately half the participants selected the Math Strand or the Science Strand. The participants in the math strand experienced demonstrations of activity based learning which emphasized problem-solving and reasoning, effective questioning techniques, and alternative authentic assessment procedures. Participants learned how to design and teach lessons within a context so as to link to the social and cultural identities of their students so as to increase student engagement in mathematical content. In the Science Strand, the participants experienced activity based instruction.

Similarly approximately half of the participants selected the Linguistics/TESOL Strand or the Collaborative Leadership Strand. Because of the status of English in Pakistan, the emphasis of the PSU program for English teachers should be on first-language studies. The instructors for the English strand will introduce some basic ideas for student-centered and task-based education but was mindful of the education tradition in Pakistan which favors a teacher-centered approach. Although the subject area was the teacher-centered classroom, the methodology employed at PSU favored a student-centered approach; in this way, the content focused on what the teachers can effectively use when they return to Pakistan. In the Collaborative Leadership Strand, participants learned to collaboratively develop goals, objectives, and a timeline for back-home implementation of Institute learning.

A mix of academic work and heritage studies occurred four days a week where the emphasis was on academic curricula, with Fridays and weekends reserved for fieldwork related to curricula areas and heritage studies. Candidates' 5-week schedule included four weeks working in their respective areas of expertise and one week of

workshops on “Becoming a Trainer”. On-campus weeks included time for instruction and fieldwork. To illustrate the integration of classwork, fieldwork, and informal exchanges, two examples are provided.

Example 1: As Science Professor Dr. Fralick explained, “*We start with concepts, demonstrations, and then go to examples (via video) and then field experience. We go from lab to lecture and vice versa. I took them through the entire cycle—lecture, demonstration, field site visit at Squam Lake, Museum of Science --which in many ways was amazing to them.*”



Photo by Robin Kellogg

An example of activity-based learning was provided by Dr. Richard Fralick as part of the science strand. Here participants gathered water samples from Little Squam Lake and entered data (notice computer held by person 2nd from the left).

Example 2: The photo below features Heritage Studies Professor Blakeman Allen (in hat), Collaborative Leadership Professor Mary McNeil, Linguistics (and TESOL) Professor Gaye Gould and the Pakistani participants who gathered in a circle as they enjoyed Lunch On the Green, a weekly event sponsored by the PSU dining hall.. In this

exchange of ideas, the Pakistani participant on the right has just asked Dr. Gould about how to improve the English her students speak.



Photo by Ann Nevin, July 27, 2005, Plymouth, NH

Dr. Gould explained, *“First, I hope you will value your own Pakistani English and let your students study English as it is written and spoken by Pakistanis. For example, as a New Zealander, I am not required to speak American English like Dr. McNeil does. My English is not the same as British English, either. I think you get better results when you teach your students the English as it is spoken in the local area.”*

What Happened?

Participants and professors rated the various aspects of the program design and methods. The participants agreed with the Institute professors that the Institute design and instruction had allowed a deeper understanding of various aspects of teaching/learning methods that could be implemented in Pakistan. In addition to the 12 program design items listed in Table 2, professors added the following: pedagogy of how learning styles

impact teaching styles (e.g., Visual-Auditory-Kinesthetic learning preferences, Gregorc's cognitive model) and the pedagogy involved in transfer of learning.

Table 1 Participant and Professor* Ratings** of Program Design		
	Participant / Professor	
1. methods to conduct class discussion sessions		
2. methods to discover what students already know	4.6	5.0
3. methods for effective questioning to extend student learning	3.9	5.0
4. journaling (or orally reflecting) about experiences	4.6	5.0
5. bringing artifacts from my culture to share with others at the Institute	4.4	5.0
6. use of local resources --field experiences; field trips; community visits	4.4	3.0
7. differentiated learning & instruction--math strand, science strand	4.6	5.0
8. differentiated learning & instruction--collaborative leadership, TESOL	4.4	5.0
9. shared learning & instruction (heritage studies)	3.9	5.0
10. opportunity to teach others about "my" culture and heritage	4.4	5.0
11. opportunity to compare my culture with the American culture	4.4	5.0
12. opportunity for cross-cultural communication	4.4	5.0
Overall Mean	4.3	4.8
*Based on feedback available at this time from 3 of the 6 professors.		
**Rating scale ranged from 1 = no influence and 5 = a great influence.		

These ratings are corroborated by the comments that participants wrote on the survey, illustrated by the following representative verbatim quotes.

We learned many new good things (activity based education). Program courses were excellent with all teachers but duration was too short. We didn't have any problem during our stay at the dorm. This was the first institute who selected candidates from the rural and backward provinces. [Science Strand Participant]

You all are doing an excellent job for the improvement of education system of Pakistan. It will increase understanding between Pakistani and USA people. [Leadership Strand Participant]

We talked a lot about how to do guided class discussions as well as question students on what they know. I took them through various activities where they could see that the way a student organizes data can in and of itself be a lesson. For example, what are some alternative ways to show the data (e.g., graphs—line graphs, pie charts), and then different ways to show the data through algebraic equations, etc. Basically this takes the student from words to data to graphs to equations—the language of mathematics! [Math Professor]

All of the teachers in the science strand were enthusiastic, interested and willing to participate. They were very appreciative of everything: from

pedagogy discussions and teaching resources to personal exchanges about family and culture. They bring an awareness of difference, a view of the world that is unique because they already have so many different cultures in their country. [Science Professor 2]

Validation of Survey Results: Listen to the Voices of the Participants

Six participants were randomly selected to participate in one-to-one interviews. The interviewees come from Baluchistan, Sindh, and Panjab regions of Pakistan. All six participants agreed to have their names cited in this report. Their remarks provide another source of data to corroborate the results of the written survey. Themes that emerged from the interviews with the selected participants focused on 1) the mutual interest in teaching as a profession, 2) the discovery of similarities between Pakistani and American problems in teaching and teacher education, 3) the shared vision that education reform can empower children to achieve their potential; and 4) the role of religion in teaching. Each theme is illustrated with verbatim quotes from the interviewees.

Theme 1: Teaching as a Profession

Table 3 indicates the wide range of roles and responsibilities with the common theme of teaching as their main professional roles.

Table 3	Interviewee	Roles and Responsibilities
	Fakhr-un-Nisa: I teach science and English. I teach in the city of Multan (Panjab region), in a government school. I also teach in an Institute of Language. I train people in how to use English language, how to teach the individual child. I'm a teacher trainer.	Shabnam: I am a teacher trainer for teachers in the private schools (SPEIP, Support to Private Educational Institutes Program). There are 300 schools. I train 600 teachers (2 from each school) and each from a different place (community).
	Farida: I am doing two things at this time. At the first time I am working as a science teacher. I am also running a non-profit organization (Baluchistan Social Development Program). There I am in administration working as a program coordinator.	Murtaza: I teach English and I have had my own English Language Academy that I have run for the last five years.

Sadaqat: I feel proud that I am serving my town, students, community. I am living in the Panjab region where I have been teaching for 21 years	Humaira: As a teachers [sic]trainer for all subjects, I work in the Sindh Ministry of Education.
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The theme of “Teaching as a Profession” is captured by what Sadaqat says so eloquently, *Good education requires good teachers. Teachers are the custodians of the past and the messengers of the future. If teacher is good, education system is good.* In fact, Dr. Wharton, the President of Plymouth State University, shares a similar view. *As teachers, we are measured not by what we have but by what we give away.*

Theme 2: Similarities and Differences between Pakistani and American Teaching

Fakhr: *First I never thought about problems that American teachers might have. I learned they face problems in literacy and attendance and discipline. Second teachers here have so much that we do not have—technology, textbooks, and so on. Third, the American teachers we met told us that students have a lack of respect for them.*

Shabnam: *Yes. Of course in USA technology is involved and the teachers are using activity based learning. In Pakistan the teachers have 70 kids and use the lecture method. There are differences between the elementary and high schools (lower studies and higher studies in Pakistan). In Pakistan we have large classes and better discipline and in USA there are smaller classes and discipline problems.*

Theme 3: Shared Vision of Education Reform as Empowering Children’s Potential

Fakhr: *I think they will learn self respect and they will have more involvement because I will change my pedagogy. I will teach more about concepts. I will be able to teach teachers effective tools, to help them realize they are building a nation, to be proud of what they do.*

Farida: *The things I have learned here, I will try to model them in the same way in my class, my trainings, and of course, the people will get the understandings. In this way I will get more competent students and learners. In this way they will be able to compete in all sectors, not only the national level, but at the international level.*

Humaira: *When the way of teaching changes, the outcome on students change. I’ll not just teach the formulas, but the reasoning behind them.*

Murtaza: *Definitely it will bring more positive changes to the students’ way of learning. The main thing I am looking for is that students in a student centered classroom will be*

more interested towards learning, more active in learning, will be more involved in learning. Those students where it seems to be mundane and have a disinterested attitude in learning, now, due to getting students involved in each and every activity, and making them a key player in the learning, they will be more enthusiastic and explore the things. They will learn to do this by themselves and it will bring an immense impact on students learning and their attitude towards learning and studies.

Shabnam: The teachers I train will learn more conceptual understanding, not just the formulas. I think the children will have enhanced reasoning and critical thinking skills.

Sadaqat: We will share content with each other, new techniques with each other. Students' learning will be more if we change the methods with teaching. We have to teach the students with their individual differences. I have learned new assessment techniques and this will help with evaluation of the students.

Theme 4: Role of Religion in Education

Fakhr: I see myself as a teacher who is a kind of spiritual father to the students. I live my life by following a spiritual path that I have shared here.

Farida: Our religion considers the teacher as spiritual parents. So if a student will commit any type of mistake, the teacher is the spiritual father, never in your life will you do something wrong with your teacher.

Murtaza: These strengths: in our country, our region, the teacher is considered the spiritual father, teaching is considered one of the most noble professions where we are living.

Similarly, the professors also reported changes in their perspectives about the Pakistani culture. As Science Professor Dr. Fralick explained, “*First, I know a lot more! Their system of education is enfolded within the Koran and in America education, religion is completely separated. Second, I’m a little bit more tolerant! I respect their serious attention, their intense motivation to make their teaching stronger, and their 100% participation in everything I offered. This [Institute] is a good thing. I’d do it again! And I’d like to go there and see them in their classes.*” This perspective is echoed

by Math Professor Dr. Evans who said in his interview, *“I probably learned more than they did! My understanding is much deeper [about the Muslim religion] than what is presented in the news.”*

Implementation Plans

The ratings shown in the previous table are validated by what the participants explained in their responses to open ended questions related to what they would take back to Pakistan as a result of the Institute, as shown by the following verbatim quotes. One participant wrote,

“After I return to my home land, my techniques in mathematics that I learned will help me conduct teacher training. Some innovative approaches discussed in the classroom will help me to conduct trainings and work with teachers.”

Another explained,

A great mathematics conceptual approach was taught. How to really visualize mathematics as what really makes sense to me for most of maths, specially geometry topics.

Over 90% of the participants wrote that they were authorized to make significant changes when they returned to Pakistan, as illustrated by the following quotes:

Yes. I am not only authorized to make changes in my teaching method but also would have great influence on the teachers in my school to get them changed and will also conduct trainings at my district levels.

Yes; being headmistress I can bring change in learning skills, enhance the knowledge of teachers by sharing ideas. We can change our methodology.

Yes. I am impressed by the innovative teaching style which mostly focuses on understanding any concept or idea. I think these things bring changes in teaching styles.

Moreover, the participants expressed an understanding of barriers and challenges they would face in implementing new teaching and learning practices. They all mentioned

class sizes of 70-80 students, the lack of modern technology in most classes especially in the rural areas, fellow teacher resistance to new ideas, and lack of time to learn the new methods. These concerns are reflected in quotes from the participants as follows.

I feel great changes in our teaching methods and surely by the grace of God I improve my method of teaching a lot.

But I will try to change my method and think I am only able to change 50%.

Our people, specifically related to this field or following classical methods, might be reluctant to use or implement [new methods]. This is some anticipation because overnight changes can't be possible for education.

Professors similarly expressed their concerns. For example, Dr. Evans (math) explained,

Also when they do any workshop or training, I think it will be important for them to structure opportunities for their participants to experience activity based learning. This means time to design the workshops and time during the workshop to allow active participation. You can't learn activity based instruction by rote memorization and lecture!

Dr. Fralick (science) noted:

I think they are going to be highly motivated to bring the environment INTO their classrooms. They don't have to rely on expensive equipment, even though they saw what we have.

Dr. Aviles (science) pointed out the need for colleagues:

Another barrier is the lack of others who are also using these methods. Other teachers in their schools need to learn what these teachers feel they already know how to do. In many ways, these people are the stars of their schools already.

Validation of these results can be found in an analysis of written implementation plans that were completed by four of the six interviewees --Murtaza, Farida, Sadaqat, and Shabma -- as part of the assignments for the Collaborative Leadership Strand indicate that they understand the basic procedures involved in establishing action plans. All four

written implementation plans included goals and specific objectives. Target audiences for training and networking were articulated in three of the four plans. Timelines for completing the projected activities were delineated by three of the four plans. It is clear from a text analysis of all six interviewees that they have the intention to implement new pedagogies, methodologies, and activities to create more learner-centered (or, in their lexicology, “child friendly”) classrooms.

Fakhr: I have a new sense of the significance of place and culture and how to use these ideas. In pedagogy, I have more skills. I have more ideas about how to structure interactions with others to increase motivation. I have skills in facilitating contacts with people from a super-power nation <smile>. I have new dimensions of thinking, a broader vision, an understanding that I have much more than I thought I had. I experienced a cultural exchange where I learned from other people and they learned from me. Not only has my mental growth and physical growth occurred, but my spiritual growth as well.

Farida: [I have learned about action planning.] What would be the strategies, after the leadership classes we can plan the things according to our goals, how we will be able to get the objectives according to our goals, What will be the time limit of our specific objectives. What will be the results. We learned the evaluation process. After implementing a project how can we evaluate the results. ... I can train the community people; I can train the administrators in a very good way. Regarding development, either it is educational or social development and leadership training, and I can conduct the leadership trainings for our teachers who will learn many things about how to manage the classes, how to involve all the students and not only this, but how they can achieve the targeted results.

Humaira: [I anticipate] integrating the subjects, math with English, science with math, back to Pakistan.

Murtaza: [What I plan to bring back to Pakistan is the idea that] everything should be focused toward the students. How should we teach, how should we evaluate to make sure that the child is learning? The different methods, means and ways of doing things is also learned. [We don't need to have a lot of educational technology, for example.] We can do many things with plain paper, with simple sticks, with rope activities. We can do many things by looking at the buildings. We can do many things (mathematically) because the ways of looking at the things has changed. We as teachers now have a different way of exploring how things found in daily life can be used in the process of learning and a better way of teaching the children.

Shabnam: In math, [I plan to show my teachers] how to introduce activity based learning in my classes. Now I can see I can do it. I have a plan and. I already can use peer

coaching, learning partners, brainstorming. Now I can introduce math into other subjects.

Sadaqat: [I plan to implement...] In science subjects, more fieldtrips, new technologies, new methods to achieve child friendly classrooms—student centered classrooms. I will do this when I go back in my school, my community, I will share with fellow teachers and my authorities as well. I will share with them and ask how can we change this system. Time management, arrangement, class management-- I have noted each point in my mind and in my heart and everyday I will work to implement this.

Conclusions

In summary, it is clear that the Institute resulted in the enhanced capacity of Pakistani participants who observed, experienced, and practiced activity based learning, cooperative group learning, incorporating local community resources and heritages into the curriculum, collaborative teaching and leadership, English as a Second Language methods, and authentic assessment methods such as oral presentations. As a result of attending the 5-week institute on the campus of Plymouth State University (PSU), Pakistani school administrators, teacher trainers, teachers became newly inspired and skilled to implement effective active learning instructional practices. They returned to Pakistan with changed attitudes about the American people as well as new motivation and methods to forward changes in their communities and school systems

In conclusion, listen to the voices of some of the participants. Humaira summarized the changes she has experienced. *What I believe now is different. Now I believe nothing is impossible any more. Even if we are an underdeveloped country, we can still change. Even with 120 students, we can do activity based teaching. I saw that I can use what I have, for example shoe boxes to teach an activity. I can make optimum use of my local resources. And the leadership course really taught me it's important to have a VISION. I'm in Karachi where the traffic and poverty and lack of time prevented me from*

thinking about my vision. Now I have been in peaceful Plymouth and I'm having time to think about my VISION.



Photo from Plymouth State University Web Site

Murtaza: We love Plymouth, the people of Plymouth. The memories will be there and we will be flooded with them. It will have a great fascination with us to come back and meet with the people we interacted with. It was a totally indescribable moment, my experience at Plymouth here.

References

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Epilogue

The horrific earthquake in October 2005 seriously disrupted the goal achievement and implementation of plans from the teachers who attended the institute. Individually, the teachers were spared. The verbatim email message from one participant stated: “well i m sorry for replying late due to some technical problems in internet here at my district. i m ok with the grace of Allah (GOD) with my family.”