

School University Collaborations at UTEP: Problem-Based Learning in Teacher Preparation for Science and Mathematics

Dr. Josefina Villamil Tinajero, Dean, College of Educ.

Dr. Bill Robertson, Asst. Prof, Teacher Education

Dr. Olga Kosheleva, Lecturer, Teacher Education



University of Texas at El Paso, TX. USA



Welcome to the College of Education The University of Texas at El Paso



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School-University Partnerships to Enhance Inquiry-Based Science & Math Teaching and Learning

- The COE has developed strong school-university partnerships with school districts in the El Paso area.
- The focus of our work is to improve educational opportunities for our children—over 75% are Hispanic.
- Partnerships provide faculty with opportunities for service, research and teaching in the field.
- UTEP is one of 11 TNE (Teachers for a New Era) sites in the nation.



Teacher Preparation Model at UTEP

- **Preservice teacher preparation is collaboratively designed—with school districts and Colleges of Arts and Science.**
- **Students are block scheduled and work in cohorts.**
- **Teacher preparation is field-based.**
- **Teacher preparation engages Arts and Sciences faculty with pre- and inservice teachers.**
- **A parent engagement component has been added to Teacher Preparation.**



Teaching is an Action Sport



Bonham Elementary – A Model School



- Partnership of UTEP COE Faculty, El Paso Independent School District (EPISD) and Staff at Bonham Elementary
- Model School for Science, Math and Technology at the Elementary level for the entire EPISD district.
- Provide professional development strategies for integrating content and instructional delivery through a problem-based learning approach.

Bonham Elementary – A Model School

- Weekly training and planning sessions
- PBL Instructional Method
- Test bed for new technologies
- Cybercafé in each hall
- Increased professional development
- Electronic Communication top to bottom
- Student Technology Teams



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Alicia Chacon – A Community School

- Pre-service teachers enrolled in the Teaching Science in Intermediate and Middle Grades class (MSED 4311)
- Pre-service teachers created and performed activities at two separate nights at which over 250 parents and community members attended
- The workshop format allowed the pre-service teachers to focus on methods of inquiry within the activities



Alicia Chacon – A Community School

- Lead the activities in the community based workshops
- Involved parents, parents, students, staff and other community members in activities that centered on Science and mathematics concepts found in household situations and materials.



Project Extend

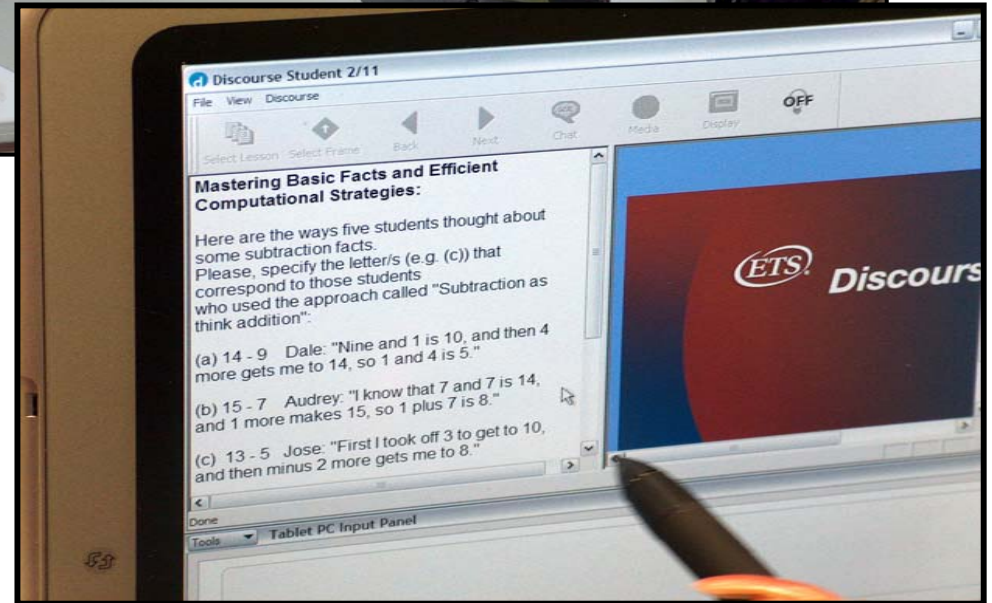
- Faculty and students from the Colleges of Education, Science and Engineering work collaboratively in local schools to reverse the impacts of poverty and the digital divide.
- Goals: developing strategies and identifying best practices for future expansion efforts engaging the entire campus community.



Canutillo Elementary School

Fall 2004:

- Field-based classes for future elementary teachers taught at Professional Development school.
- During Math content and Math Methods classes Dr. Kosheleva and Dr. Lesser are using “Discourse” software to organize interactive assessment sessions.



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Tablet PCs

- Future teachers use Tablet PCs to prepare Inquiry-based lessons (math and science are integrated with social sciences).
- Tablet PCs provide students with better visualization, interaction and wireless environment.



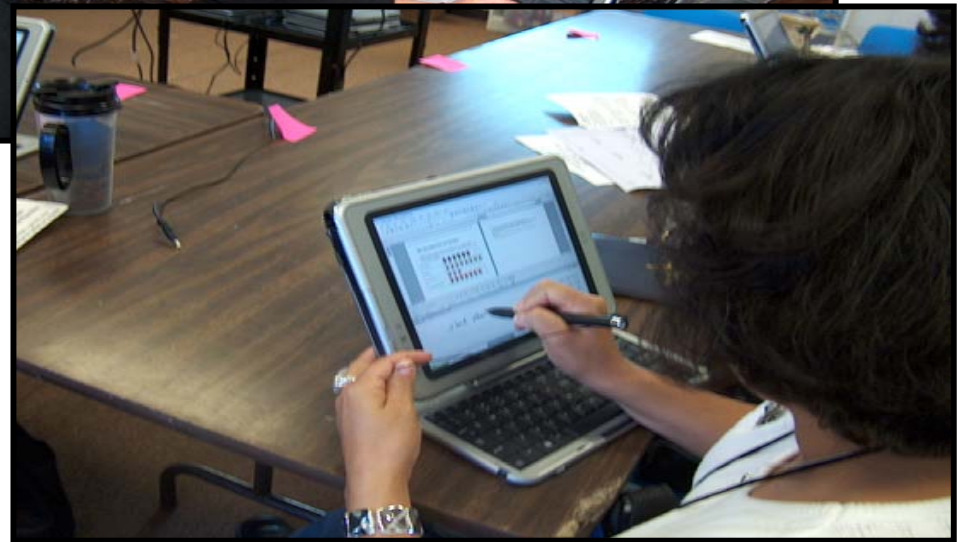
Parent Power Nights

- Community service is an important part of field-based classes.
- Parents and children learned Math and Technology skills. A teaching success!



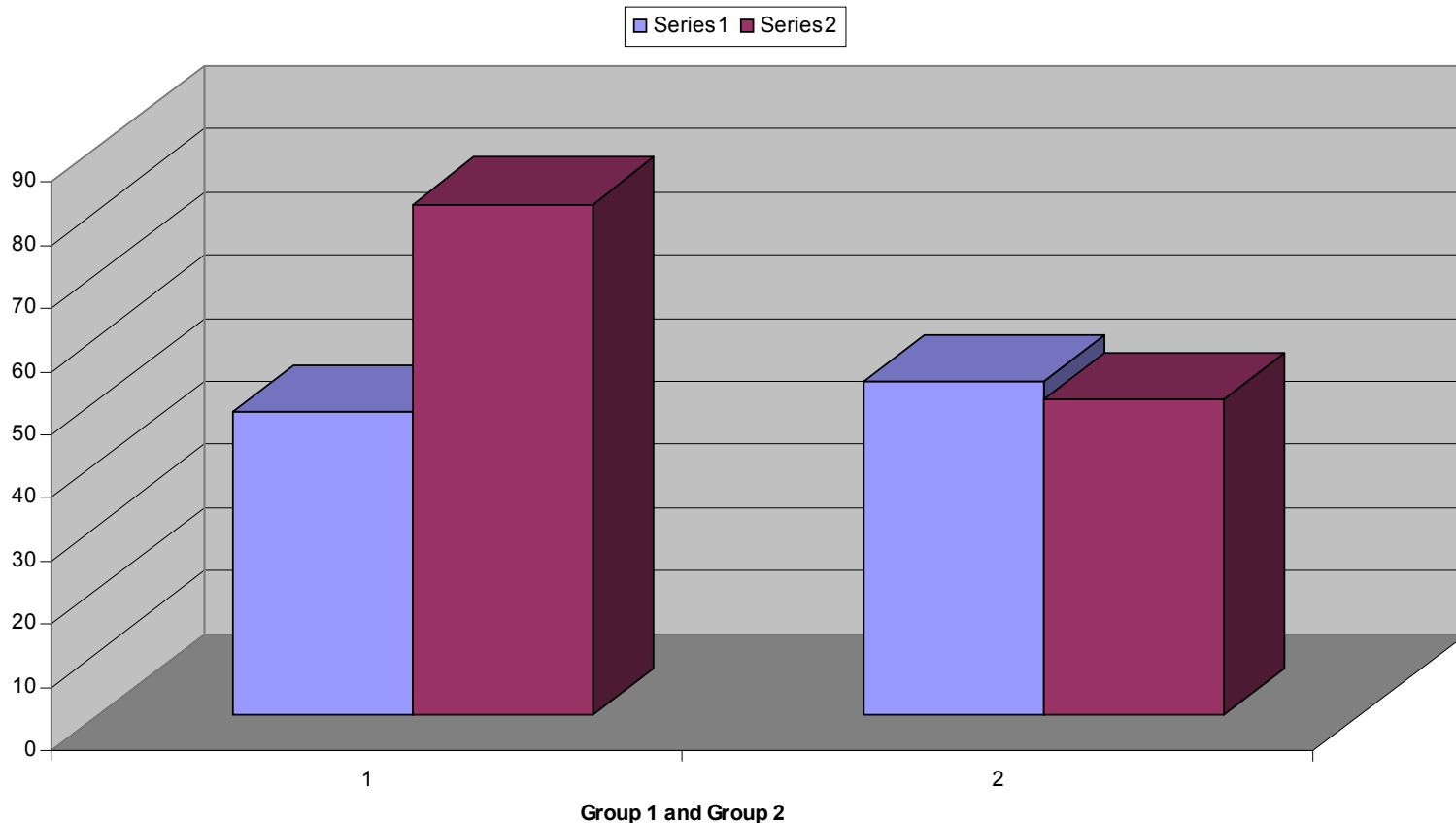
Parent Institute

- Fall 2004. Bilingual Education Conference.
- Future teachers help parents learn how to use Tablet PCs.
- Future teachers work with parents: solving inquiry-based math problems developed during Dr. Kosheleva's class.



Preliminary results

According to the partnership schools program, who has the primary responsibility for getting homework done?
Percentage of students who think that all team members are responsible.



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Thank You!

Questions?

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