

University Connections:
Preservice Teacher Training



Adrienne Rodriguez-Zermeno
Phillip Dukes

March 16, 2005

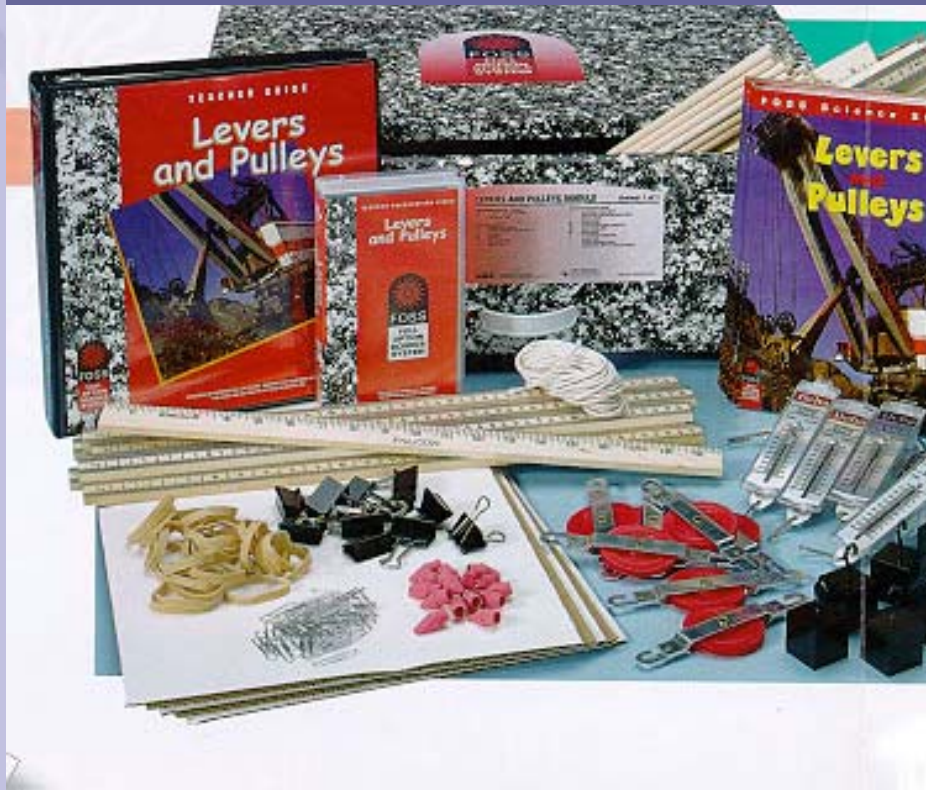
The University of Texas at Brownsville and Texas Southmost College

The Need to Improve



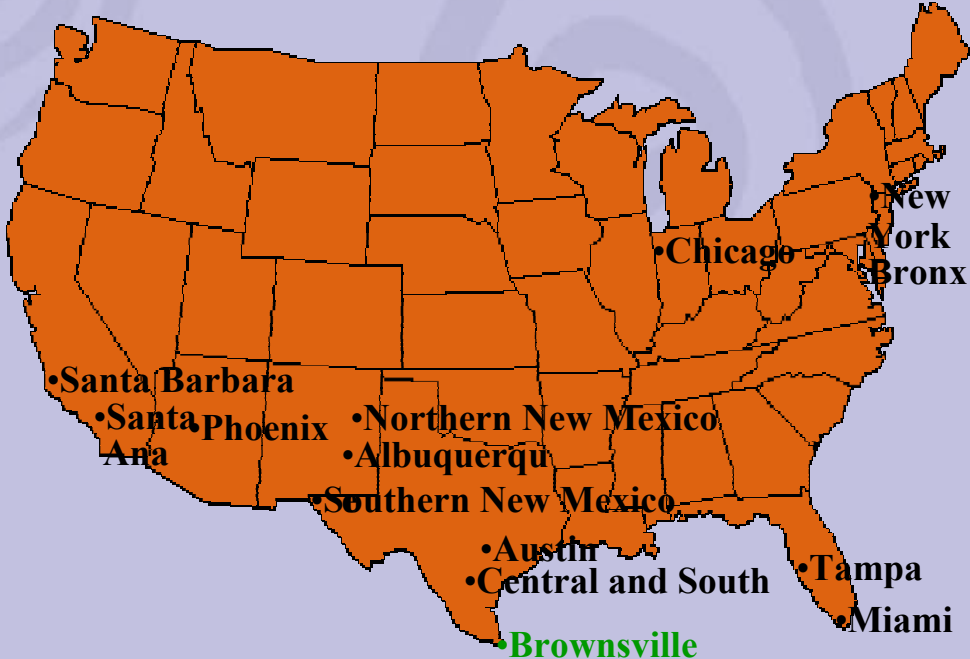
1st Steps to Reform

Fyem pmary Cvrrievm m



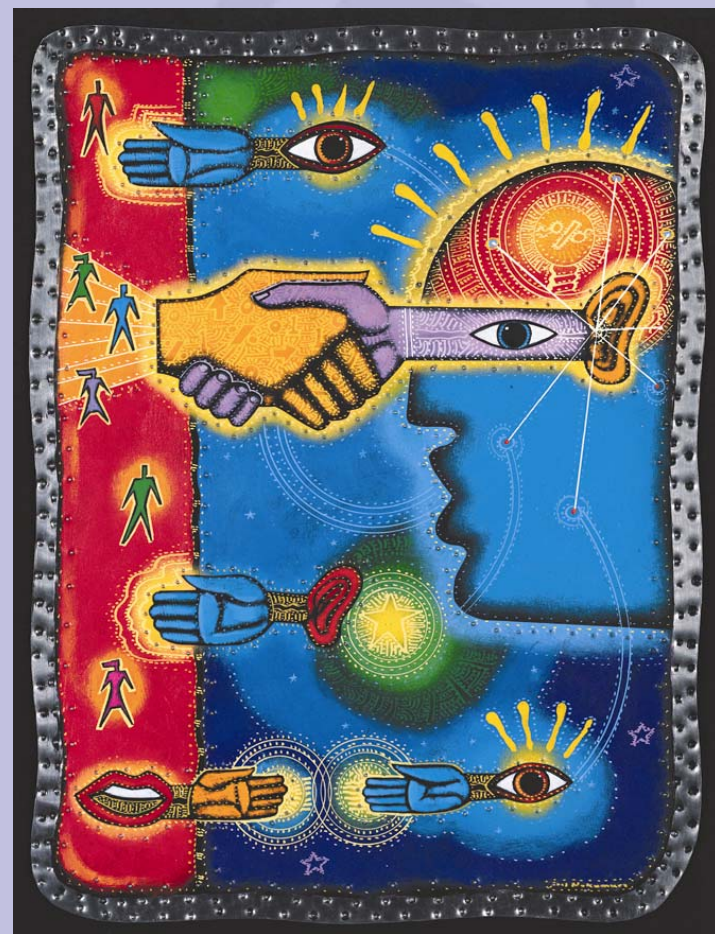
- ❖ Brn vnr vhlld Rognnl Chrshts acnosdc gamcrnm hmpthry aardc rdhmd ctnthtlt m enr fracr K-5
- ❖ Sgdrd var a mddc enr ornedrhnmal cdvdlno mdms sn rtooms sgr cchhnm.

FN LB CF Co a m i t i o n

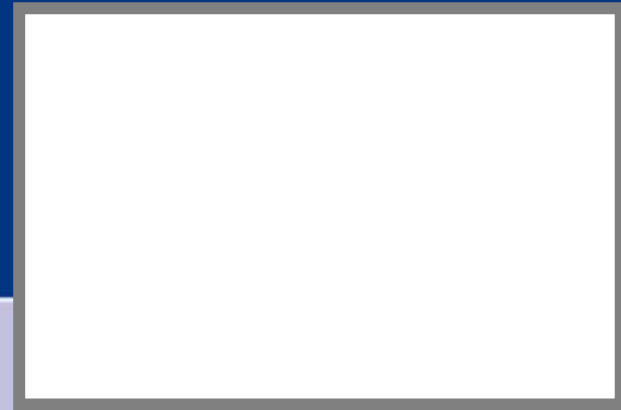




ENLACE hr dromshally aants
saodmf hmsn sgd dmdrfy amc
rdntrodr ne oarsodr hmrstshmr
amc cnmm tmshdr sn tmldarg
Sgd rkhllr amc ldamhmf aahlshy
ne Lashmn yntsg.



Why Science?



- Rstcdmsr vgn sakt cgalldmfhmf rchdmd amc masg cntrrdr ard mnd lkdly sn fn sn onldfd
- Rchdmd olayr a crtchal mldhm snca'y'r kmn vldcfd-aardc dcnmmy
- Nashmvhcd, <1 cdrcdms re PgCr hm ogyrhr, dmfhmdhmf, nr masg ard dardc ay Lashmr
- Im Brnvmrvhld, <14 cdrcdms re BIRC rstcdmsr fractasd vhsq ord-calctltr, ahlnfy, amc ogyrhr nr cgdmhrry

N i s s i o n S t a t e m e n t

Sgd Brnvmrvhllld Allhamcd enr Rchdmd Ectcashm rodkr sn arhmf
sgd cmm m tmsy snfsgdr enr sgd otronrd ne hmornvnmf Rchdmd
Ectcashm. By arhmfhmf snfsgdr chvdrrd dms hdr vhsghm sgd
cmm m tmsy vhsq a cmmnm vhrnm, BARE vhl crdcd a
arhfgdr etstrd enr Brnvmrvhllld'r yntsg.



CREATING A SCIENCE RENAISSANCE

Linking children, K-11 learners, and community leaders in our classrooms

Mentoring
Program

Systemic
Science
Education
Reform

University
Outreach

ENLACE

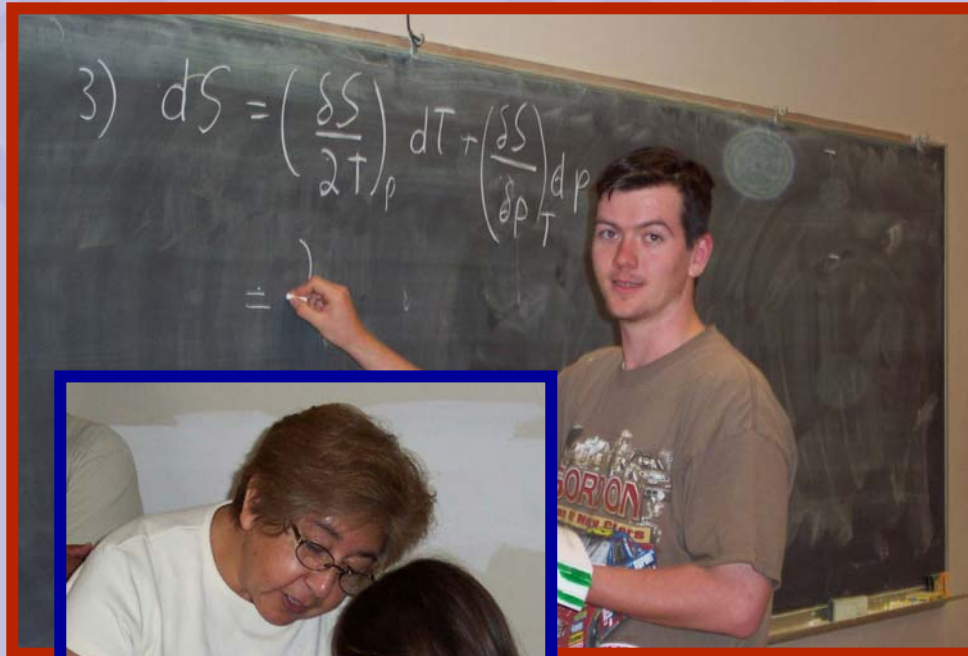
Professiona m E ev em o p m en t

Sv ppo r t in g Re fo r m



- ❖ Im-rodv hcd
vnrkrgrnor nm roddhc
cnmsdms ardar
- ❖ Gractasd cntrrdr
enr K-8^{sg} fracd
sbcgdr
- ❖ Tmcdfractasd
cntrrdr enr ord-rodv hcd
sbcgdr

Scientists Vs. Reality



Challenges to Reform

Attitudes ' Slims



- ❖ Teachers are afraid of science
- ❖ Elementary teachers must be experts at everything
- ❖ Teachers learned with textbooks

Ley B spect s

Pre.service Tra in in g



- ❖ Correlation to what is being taught in the schools
- ❖ Small Classes
- ❖ Teachers work in small groups to construct understanding
- ❖ Integrated Lecture and Lab
- ❖ Variety of Techniques
- ❖ Taught by Specialists in Physics Education



Benefits

Systemic Science Reform

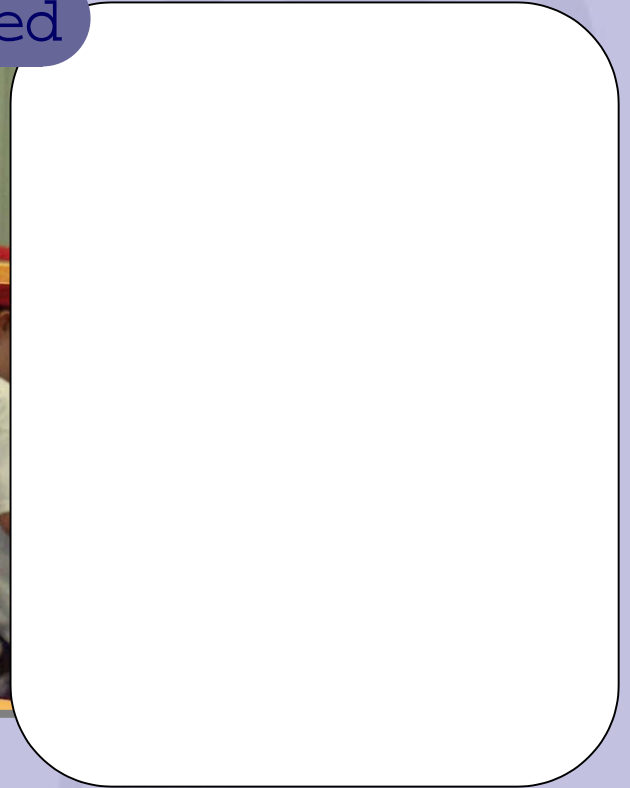


- ❖ Teachers are better prepared to teach science
- ❖ Students are involved in the “doing” of science



Importance of Pomicy

Training Nvst Ce Rer vired



Continuing Efforts





Growing Our Own Science Teachers

World Year of Physics

