Abstract Submitted for the MAR08 Meeting of The American Physical Society

Research Experiences for Teachers: How professional development through directed research can revitalize your classroom teaching¹ SHELLY HYNES, Louisiana School for Math, Science and the Arts — Research Experiences for Teachers (RET) is an NSF-funded program that provides high school teachers with the opportunity to do research at select institutions across the country in a wide variety of fields. I performed research at two institutions under this program; The National Radio Astronomy Observatory in Green Bank, WV in 2006 and Baylor University in Waco, TX in 2007. My work at NRAO utilized IDL programming to analyze the nonlinearities in the signal processing components of the GBT (Green Bank Telescope). My research at Baylor University required me to write a program in Mathematica to analyze the frequency of pulsation of variable white dwarfs, data that was taken at the Paul and Jane Meyer Observatory in Clifton, TX. I will explain how I have incorporated both research experiences into my courses and how each of these experiences has refocused my teaching.

¹Research supported via the NSF-RET program, NRAO, Associated Universities, Inc., Baylor University, and the Central Texas Astronomical Society.

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Date submitted: 30 Nov 2007 Electronic form version 1.4