

Abstract Submitted
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On the Role of an Authentic Research Experience for K-12 Science Teachers ANDREW ZWICKER, JAMES MORGAN, JOHN DELOOPER, PPPL — A variety of programs exist that offer K-12 teachers an opportunity to perform scientific research during the summer. Since 2001, the NSF has offered a Research Experience for Teachers, based upon the more common Research Experience for Undergraduates (REU). The DOE has had the Teacher Research Associate (TRAC) program since 1989 and currently sponsors the Academies Creating Teacher-Scientists (ACTS). In each of these, teachers spend 2-8 weeks performing research and developing classroom activities based upon this experience. Many programs assess changes in knowledge or attitude towards science, a few look at teacher retention, and one looked at student achievement after a teacher completed a program. Currently, PPPL runs two research programs for teachers, one running for two weeks, one for six weeks. One program recruits teachers nationally, while the other concentrates its efforts on a single school district. Each program will initially run for three years and we will report on our initial data that looks at attitudes, teaching philosophy, and content knowledge before beginning the research project. We will also report on expected outcomes after completion of the program.

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