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Abstract for an Invited Paper for the SES07 Meeting of the American Physical Society

## Hands-on distance learning is an effective way to boost physics understanding and skills of inservice teachers<sup>1</sup> JOSEPH STRALEY, University of Kentucky

Since 1993 the University of Kentucky has been developing methodologies and resources for boosting in-service teachers' process skills and conceptual understanding of physics through various forms of inquiry based learning. With funding from FIPSE we have developed a set of distance learning courses ("Light", "Temperature, Heat, & Energy", "Electricity & Magnetism", "Force, Motion, & Energy") to teach physics concepts to rural teachers in grades 4-9. These courses consist of hands-on activities that the teachers can use in their own classrooms, and are based on a materials kit sent to each participant, allowing guided inquiry be the instructional approach. The courses are asynchronous and may be taken by individuals or small groups, for professional development or course credit, and are now being offered to teachers nationwide (see http://www.hovphysics.com). With NSF support we are now studying how much of what a teacher learns in a course transfers to the teacher's students.

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