Propagations of the AAPT New Faculty Workshop: A case study of the infusion of student-centered technological and pedagogical innovations in the introductory physics program at West Point

BRYNDOL SONES, US Military Academy — Since 2002, the Department of Physics at West Point has been the fortunate recipient of yearly attendance at the AAPT New Faculty Workshop. This sustained involvement has contributed directly to enhancements in our two-semester introductory physics program. Two aspects of West Point’s environment make our involvement with the workshop especially fruitful: our diverse students and our frequent faculty turn-over. We teach to over 1100 students with majors across the entire spectrum. The majority of our faculty is an active duty Army officer here for just three years. At West Point, we rely on the workshop as a wellspring for faculty development, technological innovation, and pedagogical refinement. In the past few years, we have incorporated aspects of peer instruction, activity-based learning, and tutorials for student discovery. On the technological side, we now have TabletPCs for faculty, rf response cards (TurningPoint), high speed video analysis (LoggerPro) projects, and video tutoring capabilities (Camtasia). Student achievement is measured through our traditional course evaluation tools as well as nationally recognized standardize tests. Results will are discussed in the presentation.

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