

Abstract Submitted
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Research as a guide for developing curricula on wave behavior at boundaries¹ MILA KRYJEVSKAIA, MACKENZIE STETZER, PAULA HERON, LILLIAN MCDERMOTT, University of Washington — The Physics Education Group at the University of Washington has been developing research-based instructional materials on mechanical waves and physical optics.* As a part of this ongoing process, we continue to assess and refine existing tutorials. In particular, we are focusing on tutorials designed to help students apply boundary conditions to the propagation and refraction of periodic waves. Pretest and post-test results are being used to inform curriculum modifications and to assess the effectiveness of the revised materials. Specific examples of persistent student difficulties will be presented. * Tutorials in Introductory Physics, L.C. McDermott, P.S. Shaffer and the Physics Education Group at the University of Washington, Prentice Hall (2002)

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