

Abstract Submitted  
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**Research on Student Learning of Rigid Body Dynamics<sup>1</sup>** PAULA HERON, HUNTER CLOSE, University of Washington, LUANNA ORTIZ, Arizona State University — Most students find it difficult to believe that the effect of a force on the center-of-mass acceleration of a rigid body does not depend on how that force affects the rotational motion of that body. In the Physics Education Group at the University of Washington, we are continuing to develop a tutorial to help students with this issue. The results of some post-tests suggest that student learning is improving. However, on some other post-tests, little or no improvement is seen. We will discuss possible reasons for this apparent discrepancy and describe how the results of our research suggest modifications for instruction in this and other areas of the introductory course.

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