

Conceptual Development of Quantum Mechanics: Experiences with the Visual Quantum Mechanics Materials*

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In this paper we will present our experiences using a portion of the materials developed by the Visual Quantum Mechanics (VQM) project¹ as part of our recent efforts to investigate student understanding of basic quantum mechanics concepts. The VQM materials were utilized in a new second-tier introductory course for non-science majors at American University that was taught for the first time in fall 1999. Curricular materials integrated into the course were drawn from two VQM instructional units: *Solids & Light* and *Luminescence: It's Cool Light*. A brief outline of the specific hands-on activities students performed within each instructional unit will be presented. Strategies that were developed and employed to assess student conceptual understanding of quantum mechanics will also be described. A summary of our preliminary results will be shared.

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