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Education Research in Graduate Quantum Mechanics: Misunderstandings and Tutorials¹ CHRISTOPHER PORTER, ANDREW HECKLER, Ohio State Univ - Columbus — Compared to introductory courses, upper division and graduate-level courses have not been as widely studied by the PER community. But such studies are integral to our field, as these are the courses most densely populated by future experts and even future faculty. A study of graduate students difficulties in quantum mechanics at The Ohio State University is currently in its fourth year, as is an effort to improve these students conceptual understanding of quantum mechanics through active learning. This talk will give an overview of common misunderstandings uncovered by pre-post testing of four cohorts. We will also examine whether there is an effect on some students misunderstandings related to their attendance in guided group work / tutorial sessions.

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