

Abstract Submitted  
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**Assessing laboratory instruction by studying student perceptions of introductory physics laboratories** YUHFEN LIN, DEDRA DEMAREE, GORDON AUBRECHT, The Ohio State University, XUELI ZOU, California State University-Chico — A Q-type assessment instrument, Laboratory Program Variables Inventory (LPVI),<sup>1</sup> has been given to students in various introductory physics laboratories. The results show that student perceptions are very different between different lab formats. The same inventory was also given to the laboratory teaching assistants (TAs). For interactive engagement labs, the instructor expectations do not seem to relate to the student perceptions directly. The instrument was also used to study Investigative Science Learning Environment (ISLE) labs at three institutions. With inexperienced instructors and new materials, the Ohio State University ISLE labs have achieved the goal of having students make scientific decisions by promoting student-centered activities.

1. M. R. Abraham, “A descriptive instrument for use in investigating science laboratories,” *Journal of Research in Science Teaching* 19 (2)

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