



## Socratic Dialog Inducing Laboratories

Indicates a research-demonstrated benefit

### Overview

Guided-inquiry, introductory mechanics labs designed to promote students' mental construction of concepts.



**Type of Method**

Curriculum supplement



**Level**

**Designed for:** High School , Intro College Calculus-based , Intro College Algebra-based , Teacher Prep Course, Teacher Professional Development, Intro College Conceptual

**Can be adapted for:** Intermediate, Upper-level Undergraduate



**Setting**

**Designed for:** Lab , Studio

**Can be adapted for:** Lecture - Small (<30 students)



**Coverage**

Few topics with great depth



**Topics**

Mechanics



**Instructor Effort**

High



**Resource Needs**

TAs / LAs, Advanced lab equipment, Tables for group work



**Skills**

**Designed for:** Conceptual understanding , Lab skills, Making real-world connections, Using multiple representations

**Can be adapted for:** Problem-solving skills, Metacognition



**Research Validation**

**Based on research into:** theories of how students learn , student ideas about specific topics

**Demonstrated to improve:** conceptual understanding

**Studied using:** research at multiple institutions



**Compatible Methods**

[Peer Instruction](#), [PhET](#), [UW Tutorials](#), [JiTT](#), [Ranking Tasks](#), [ILDs](#), [CGPS](#), [Physlets](#), [Context-Rich Problems](#), [RealTime Physics](#), [TIPERs](#), [ABP Tutorials](#), [SCALE-UP](#), [OSP](#), [OST Tutorials](#), [Thinking Problems](#), [Workbook for Introductory Physics](#), [LA Program](#), [CAE TPS](#), [MBL](#), [CPU](#), [TEFA](#), [Tools for Scientific Thinking](#), [Tutorials](#), [Clickers](#), [Responsive Teaching](#)

 **Similar Methods** [RealTime Physics, Tools for Scientific Thinking](#)

 **Developer(s)** Richard Hake

 **Website** <http://www.physics.indiana.edu/~sdi/>

 **Intro Article** 11763,2733

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