




EiP Explorations in Physics

 Indicates a research-demonstrated benefit

Overview

The Explorations in Physics Project is a major effort to increase the effectiveness of science education for future elementary school teachers, parents, and citizens by developing a sequence of introductory, activity-based, laboratory courses. We seek to integrate the use of guided-inquiry techniques with self-directed projects in order to help students acquire a more fundamental understanding of the nature of science.



Type of Method

Full curriculum



Level

Designed for: Intro College Conceptual 



Setting

Designed for: Studio 



Coverage

Few topics with great depth



Topics

Mechanics, Waves / Optics, Thermal / Statistical



Instructor Effort

Medium





Resource Needs

Teaching Assistants / Learning Assistants, Computers for student use in class, Lab equipment for student use - professional, Tables arranged for group work, Studio classroom








Skills




Designed for: Conceptual understanding of physics content  , Think like a scientist  , Coherent framework for physics, Understanding how physics relates to the real world, Self-confidence around physics, Laboratory skills, Designing experiments, Creativity



Research Validation

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

Demonstrated to improve: scores on multiple choice conceptual tests  , scores on written conceptual tests  , beliefs about physics 

Studied using: conceptual pre/post exams  , beliefs pre/post exams  , student interviews 



**Compatible
Methods**

[PhET](#), [Physlets](#), [SCALE-UP](#), [OSP](#), [LA Program](#), [MBL](#), [CPU](#)



**Similar
Methods**

[Workshop Physics](#), [SCALE-UP](#), [MBL](#),



Developer(s)

David P. Jackson, Priscilla W. Laws, and Scott V. Franklin



Website

http://physics.dickinson.edu/~eip_web/eip_homepage.html

