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The SCALE-UP Project[1]

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The Student Centered Active Learning Environment with Upside-down Pedagogies (SCALE-UP) project was developed nearly 20 years ago as an economical way to provide collaborative, interactive instruction even for large enrollment classes. Nearly all research-based pedagogies have been designed with fairly high faculty-student ratios. The economics of introductory courses at large universities often precludes that situation, so SCALE-UP was created as a way to facilitate highly collaborative active learning with large numbers of students served by only a few faculty and assistants. It enables those students to learn and succeed not only in acquiring content, but also to practice important 21st century skills like problem solving, communication, and teamsmanship. The approach was initially targeted at undergraduate science and engineering students taking introductory physics courses in large enrollment sections. It has since expanded to multiple content areas, including chemistry, math, engineering, biology, business, nursing, and even the humanities. Class sizes range from 24 to over 600. Data collected from multiple sites around the world indicates highly successful implementation at more than 250 institutions. NSF support was critical for initial development and dissemination efforts.

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