



Evidence in Action

A K20 Center Research Brief

Boosting ACT Scores with Embedded Curriculum: The Power Up Program

*Morrissey, B. S., Wilson, S., McDaniels-Gomez, P., Willems, K., Goodin, A.,
Williams, L. A., & Williams, L. A (2025).*

Introduction

Success on college entrance exams, such as the ACT, plays a critical role in shaping students' postsecondary opportunities, including college access, scholarship eligibility, and placement options. Despite increasing adoption of test-optional admissions policies, many selective institutions have reinstated test requirements, reaffirming the continued importance of ACT performance. Prior research suggests a strong relationship between standardized test scores and college outcomes, yet access to effective test preparation remains inequitable, particularly for students from historically underserved backgrounds.

The authors identified a gap in peer-reviewed, independent research examining comprehensive ACT preparation programs embedded within classroom instruction. Much of the existing evidence base relies on reports produced by test publishers or focuses narrowly on test-taking strategies rather than integrated, instructional approaches. This study responds to that gap by evaluating Power Up ACT, a research-based, classroom-embedded ACT preparation program designed to improve test scores while increasing equitable access to high-quality test preparation.

Methodology

Research Design:

The study employed a quasi-experimental, repeated-measures design using a general linear model to examine changes in ACT scores over time. Student scores from a fall ACT administration served as pretest measures, while spring ACT scores served as posttest measures. This design allowed the researchers to examine how participation in ACT preparation sessions related to score changes across multiple testing administrations.

Sample:

Participants included 1,496 11th-grade students enrolled in nine urban high schools within a southwestern public school district participating in a federal college access grant. The student



population was predominantly Hispanic (67.1 percent), with representation from Black, White, Indigenous, Asian, multiracial, and other racial or ethnic groups. All schools served students eligible for no-cost meals through the Community Eligibility Provision, indicating high levels of economic need. All students in participating schools engaged in some portion of the Power Up ACT program though levels of participation varied.

Intervention Description:

Power Up ACT is a comprehensive, turnkey ACT preparation program designed to be embedded within existing high school coursework. The intervention consists of instructor-led learning activities aligned to the four ACT subject areas—English, mathematics, reading, and science—and is integrated into regular classroom instruction rather than offered as a stand-alone test preparation course.

The curriculum includes 40 individual activities distributed across subject areas and emphasizes four research-based principles of effective test preparation: instructor-led instruction, practice testing, student self-efficacy, and test-wiseness. Activities are contextualized to course content and grounded in state academic standards to ensure alignment with instructional goals.

Key components of the intervention include explicit instruction on ACT content and structure, opportunities to engage with retired ACT practice items, structured reflection on performance, and goal-setting exercises designed to build confidence and testing stamina. Students engage in full-length or section-specific ACT practice tests spaced across the program to reduce fatigue and support sustained engagement. Teachers implement activities within their normal instructional schedules, supported by professional learning designed to promote fidelity and consistent documentation of participation.

Dosage:

The Power Up ACT program is designed as a 10-week intervention. During this period, students participate in one instructor-led activity per week, with each session lasting approximately 35 minutes.

Designed dosage

- 10 instructional weeks
- 1 session per week
- Approximately 35 minutes per session
- **Total intended dosage: 10 sessions, or approximately 350 instructional minutes (about 5.8 hours)**

However, actual dosage varied by student and subject area. Participation data show that students attended an average of 15.56 total sessions across subject areas, with attendance per



subject ranging from approximately 3 to 6 sessions. Attendance was tracked through educator logs and treated as a continuous measure in analyses.

Because attendance varied, total dosage received by individual students ranged from zero to 40 sessions overall. The study explicitly examined dosage effects by analyzing the relationship between the number of sessions attended and changes in ACT scores.

Data Analysis:

Researchers used a general linear model for repeated measures to analyze changes in ACT composite and subject-area scores from pretest to posttest. Analyses examined both overall program participation and subject-specific participation, while also exploring differences by gender and race or ethnicity.

Results

Results indicate that participation in Power Up ACT was associated with statistically significant improvements in ACT scores, particularly when students attended more preparation sessions. Students who participated in a greater number of sessions demonstrated significant gains in ACT composite scores, English scores, and reading scores beyond what would be expected from repeat testing alone.

Findings suggest that dosage matters: higher participation was consistently linked to stronger outcomes, especially in English and reading. While math and science gains were not uniformly significant at lower participation levels, additional analyses showed that students who received high levels of math or science preparation experienced meaningful score improvements in those subjects.

Importantly, results did not indicate that the program widened achievement gaps by gender or race or ethnicity. Instead, gains were generally consistent across student subgroups, suggesting that embedded, instructor-led test preparation can support equitable improvements in outcomes when implemented at sufficient dosage.

Application into Practice

Schools and districts seeking to implement an embedded ACT preparation approach like *Power Up ACT* should focus on integrating test preparation directly into core instruction while maintaining consistent student participation to ensure sufficient dosage. Key actions for implementation include:

- Embed ACT preparation activities within existing English, mathematics, science, and reading-focused courses rather than offering test prep as an optional or extracurricular program.
- Schedule instructor-led ACT preparation sessions on a consistent weekly basis, using short, structured activities that fit within regular class periods.



- Plan for a minimum implementation window of 10 instructional weeks, with approximately 35 minutes per session, to align with the intended dosage model.
- Provide professional learning for teachers that emphasizes ACT content alignment, test-wiseness strategies, and student engagement approaches to support fidelity of implementation.
- Incorporate multiple opportunities for students to engage with authentic ACT practice items and retired tests to build familiarity, stamina, and confidence.
- Establish clear systems for tracking student attendance and participation to monitor dosage and identify students who may need additional support.
- Emphasize consistent student attendance across sessions, as higher participation levels were associated with stronger outcomes in ACT composite, English, and reading scores.

When schools are unable to implement all components at full dosage, leaders should anticipate reduced impact and prioritize strategies that increase consistency and participation across subject areas.

Work Cited

Morrissey, B. S., Wilson, S., McDaniels-Gomez, P., Willems, K., Goodin, A., Williams, L. A., & Williams, L. A. (2025). *Power Up ACT: Evaluating the efficacy of an embedded ACT curriculum on test score improvement using a repeated measures model. Assessment in Education: Principles, Policy & Practice.*