

EFFECTIVE MIDDLE GRADE MATHEMATICS



EXECUTIVE SUMMARY

The practice sites for this study included seven middle grade teachers (Grades 6-8) who taught at Title 1 schools across the state of Utah.

Four of the participants agreed to be identified within this report. Their names, schools, and contact information are provided below.

Three other participants chose not to be identified, and therefore, this report preserves their confidentiality.

Rachelle Alvey
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Seven teachers representing five Utah schools across four school districts detailed their mathematical teaching practices through semi-structured interviews.

Analyses of RISE Mathematics assessment data helped identify seven Title 1 middle grade mathematics teachers whose students yielded exceptional growth scores. Campbell (Utah State University) conducted semi-structured interviews with each of the seven teachers to explore the teaching practices that may have contributed to their students' RISE Mathematics student growth percentiles. Based on these interviews, eight themes were constructed:

- (1) team planning;**
- (2) mapping the curriculum;**
- (3) attending to affect;**
- (4) direct guidance alongside partner or group reasoning and practice;**
- (5) whiteboards as student resources;**
- (6) practicing without over-practicing;**
- (7) data-driven reteaching;**
- (8) allowing “redos.”**

These thematic findings reveal implications for administrators and teachers. Namely, administrators might provide dedicated time for team planning and data-driven intervention, and teachers might implement the instructional practices described within this report in a manner that is most comfortable for them. The primary limitation of this report is that it relies solely on self-report data.

The full report is available for download at <https://bit.ly/4apOpBt>

ABOUT THIS REPORT

Utah Leading through Effective, Actionable, and Dynamic (ULEAD) Education was created to find, research, and highlight proven practices in Utah schools for replication statewide. ULEAD partners with practitioners, researchers, and education organizations to develop and curate resources, foster collaboration, and drive systemic change for improved student outcomes. The ULEAD Clearinghouse is a growing repository of innovative, effective, and efficient practice resources and tools to support educators.

The ULEAD Steering Committee, composed of current Utah educators and stakeholders, meets quarterly to inform the focus priorities that ULEAD will research. ULEAD uses data to find positive outliers in each focus area and create reports, such as this one, illuminating the practices and policies that lead to positive outcomes. At the time of this

report, these priorities include: Student Attendance, Educator Retention and Job Satisfaction, Academic Achievement through Strategic Engagement through Technology, and Academic Success through Social Emotional Supports Grounded in Academic Classroom Practice, with an emphasis on middle grade mathematics and multilingual learner achievement.

This report addresses effective teaching strategies in middle grade mathematics with specific attention to successful teachers at Title 1 schools.

ULEAD collaborates with Institutes of Higher Education and education practitioners to develop Innovative Practice Reports. This report was developed in partnership with Utah State University.

RESEARCHER

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Dr. Tye Campbell is an assistant professor in the Teacher Education & Leadership Department at Utah State University. He studies the social, affective, and cognitive factors that promote students' success in mathematics, with an emphasis on middle school mathematics. Dr. Campbell's research has centered around several themes, including: small group learning; mathematical flourishing; teacher noticing; and mathematical argumentation. Through his research, he has uncovered practices that support students to learn and participate productively in mathematics. In addition to research, Dr. Campbell teaches elementary and middle school methods courses to preservice teachers. He enjoys preparing the next generation of teachers to use productive teaching practices that support students' cognitive, affective, and social growth in mathematics.

Interested in creating a practice report, or know of a successful practice that should be shared? Practitioners, researchers, and graduate students are all welcome partners. Contact us to initiate a report or research partnership: ulead@schools.utah.gov