

# Evidence of Effectiveness



## The Zones of Regulation is <u>research-based</u>.

The Zones of Regulation framework and curriculum was developed from foundational research and practices in the fields of social-emotional learning, neuroscience, curriculum development, and psychological foundations. To learn more about the research base behind The Zones of Regulation, view the Research page on our website.

#### The Zones of Regulation is evidence-based.

Studies examining The Zones of Regulation's impact have shown the curriculum has a positive effect on learner outcomes. This brief provides an overview of prior research on The Zones of Regulation Original Curriculum (Kuypers, 2011) and the preliminary, promising evidence of The Zones of Regulation Digital Curriculum (Kuypers, 2024).



Since its introduction in 2011, we have seen the impact of The Zones of Regulation from an abundance of practice-based evidence. *Practice-based evidence* is the collection of authentic experiences with The Zones of Regulation from educators, therapists, families, and learners. For over a decade, we have partnered with communities using The Zones to gather practical feedback and learn from real-time users. This community-centered approach guides the refinement of our framework and curriculum and helps to minimize the "research-to-practice gap" where programs adopted on the basis of research fail to be effective in practice. Our prioritization of practice-based evidence, ongoing evaluation, and continuous improvement has allowed us to gain a deep understanding of the real-world challenges faced by learners, leaders, and systems using The Zones of Regulation.

In addition to practice-based evidence, rigorous studies conducted by independent researchers have

demonstrated the positive impact of The Zones of Regulation. Our existing evidence base is associated with the following outcomes (for more details on these studies, view our Evidence Grid):

IMPROVED SELF-REGULATION:

statistically significant improvement on measures of learners' positive self-regulation (e.g., self-awareness, self-management, responsible decisionmaking)

- Self-regulation
  Positive social
  behavior
  - Academic performance
  - Teaching practices

- Emotional distress
- Maladaptive behavior
- Exclusionary discipline
- **IMPROVED POSITIVE SOCIAL BEHAVIOR:** statistically significant improvement on measures of learners' positive social behaviors (e.g., social awareness, relationship skills, social communication, self-confidence)
- **REDUCED EMOTIONAL DISTRESS:** statistically significant reduction on measures of learners' emotional distress (e.g., sadness, nervousness)



- **REDUCED MALADAPTIVE BEHAVIOR:** statistically significant reduction on measures of learners' maladaptive behaviors related to learners' social, emotional, and behavioral competencies (e.g., emotional reactivity, irritability, hyperactivity, inattention)
- **IMPROVED ACADEMIC PERFORMANCE:** statistically significant improvement on measures of learners' academic performance (e.g., grades, standardized achievement scores)
- **DECREASED USE OF EXCLUSIONARY DISCIPLINE:** statistically significant reduction on measures of exclusionary discipline (e.g., suspensions, expulsions, office discipline referrals)
- **IMPROVED TEACHING PRACTICES:** statistically significant improvement on measures of teaching practices that foster learner social-emotional competencies (e.g., teacher self-efficacy)

Looking ahead, we continue to emphasize the importance of evaluation and practice-based evidence while expanding our evidence base. This includes the prioritization of external partnerships to conduct large-scale efficacy research. Examples of active research projects include:

- Researchers at Emory University and the University of Colorado are conducting a randomized control trial to assess the impact of The Zones of Regulation curriculum for learners with autism or social communication delays.
- Researchers at the University of Wisconsin are looking at the effectiveness of The Zones of Regulation curriculum in supporting middle school learners' social-emotional development.
- Researchers at Colorado State University are conducting a randomized control trial to examine the effectiveness of The Zones of Regulation curriculum with autistic learners using both clinical and Equine Therapy Integrated Approaches.

### PILOT STUDY OF THE ZONES OF REGULATION DIGITAL CURRICULUM

This pilot study of The Zones of Regulation Digital Curriculum included five elementary schools, 35 teachers, and over 700 learners. Three schools participated as intervention sites (n=18 teachers) and two schools participated as comparison sites (n=17 teachers). Teachers at comparison schools did not implement the curriculum in any form. General education classroom teachers at intervention sites attended The Zones of Regulation Basic Training program and delivered the curriculum over four months.

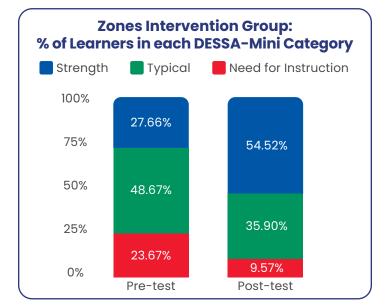
Both intervention and comparison teachers completed the Devereux Student Strengths Assessment-Mini (DESSA-Mini) before and after delivering the curriculum (pre- and post-test) to assess the impact of the curriculum on learner social, emotional, and behavioral competence. The DESSA-Mini is a strengths-based assessment that can be used to screen for and monitor progress in the development of social, emotional, and behavioral competencies of self-awareness, self-management, social awareness, relationship skills, goal-directed behavior, personal responsibility, decision making, and optimistic thinking.

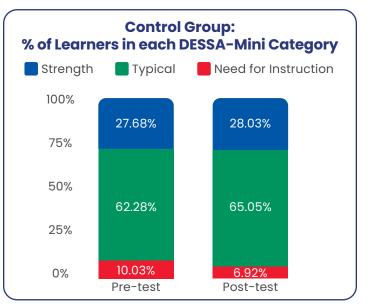
Of the 665 learners with ratings at pre- and post-test, learners in intervention classrooms (n=376) showed a significant increase in social-emotional competencies. At pre-test, 23.67% of learners in intervention classrooms fell in the *Need for Instruction* level and 27.66% were rated at the Strength level. Following four months of implementation using The Zones of Regulation Digital Curriculum, learners at the *Need for* 



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*Instruction* level decreased to 9.57% and learners at the Strength level increased to 54.52%. Learners in comparison classrooms (n=289) showed minimal change in their overall social-emotional competencies. At pre-test, 10.03% of learners in comparison classrooms fell in the *Need for Instruction* level and 27.68% were rated at the Strength level. At post-test, learners at the *Need for Instruction* level slightly decreased to 6.92% and learners at the Strength level slightly increased to 28.03%.





# STUDY SPOTLIGHTS OF THE ZONES OF REGULATION ORIGINAL CURRICULUM

#### Improvements in Social-Emotional Competencies

This quasi-experimental study assessed the effectiveness of The Zones of Regulation Original Curriculum in 12 elementary general education classrooms across three elementary schools. Half of the participating teachers delivered the curriculum over the course of four months and the remaining teachers engaged in business as usual. Moderate to large effect sizes were found on standardized measures of self-awareness, self-management, relationship skills, and responsible decision making domains for learners in intervention classrooms. Overall, learners who received instruction in The Zones of Regulation had significant increases in their social-emotional competencies compared to learners in the control group.

#### Read more about this study

Dunn, M. (2019). The Impact of a Social Emotional Learning Curriculum on the Social-Emotional Competence of Elementary-Age Students. [Doctoral dissertation, Clemson University]. ProQuest.

#### **Reductions in Maladaptive Behaviors**

This study assessed The Zones of Regulation Original Curriculum as an intervention with autistic learners ages six to thirteen in a clinical setting. Learners displayed reductions in maladaptive behaviors throughout curriculum delivery and at follow-up, including statistically significant decreases in irritability, hyperactivity, emotional reactivity, sadness, and nervousness. Additionally, facilitators and caregivers expressed satisfaction with the framework and curriculum.

#### Read more about this study

Peters, B. C., Gabriels, R., Schmid, A. A., Lassell, R. K. F., Pan, Z., Hoffman, A., & Hepburn, S. (2024). Occupational Therapy Using Zones of Regulation™ Concepts: A Feasibility Study. Occupational Therapy Journal of Research. Advance online publication. https://doi. org/10.1177/15394492241246549



#### **Increased Teacher Self-Efficacy**

This study examined the effect of The Zones of Regulation Original Curriculum on teachers' sense of selfefficacy in supporting learners with diverse needs. Teachers found the curriculum to be acceptable, understandable, and feasible to implement. Teachers also reported statistically significant increases in self-efficacy when navigating the self-regulation needs of autistic learners. They reported higher levels of agreement when asked about their self-efficacy related to classroom management, instructional practices, and learner engagement.

#### Read more about this study

Öhlböck, E., Stinson, M., McClintock, K., & Turtle, B. (2024). Evaluating the effectiveness of key components of Zones of Regulation™ curriculum training on teachers' self-efficacy at managing self-regulation needs in autistic pupils. British Journal of Special Education, 51(1), 111–122. https://doi.org/10.1111/1467-8578.12501

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The Zones of Regulation is a social-emotional learning framework and curriculum developed through over 15 years of research and practice. The Zones of Regulation is implemented worldwide across educational, clinical, and home settings. The widespread use of The Zones of Regulation is a testament to its impact on learners, with trainings conducted in over 62 countries and counting, as seen in the figure below. At The Zones of Regulation, we are committed to making social-emotional learning accessible, relevant, and inclusive for all. We look forward to growing and evolving alongside our community of learners, families, educators, therapists, and clinicians to work toward our mission: overall well-being and life success for all.



