

Achieving the 4:1 Ratio



PBSIS

Helping Schools Build Systems of Support

RUTGERS
Robert Wood Johnson
Medical School

THE BOGGS CENTER ON DEVELOPMENTAL DISABILITIES
New Jersey's University Center for Excellence in Developmental Disabilities Education, Research, and Service
New Jersey's Leadership Education in Neurodevelopmental and Related Disabilities Program

New Jersey Department of Education
Office of Special Education

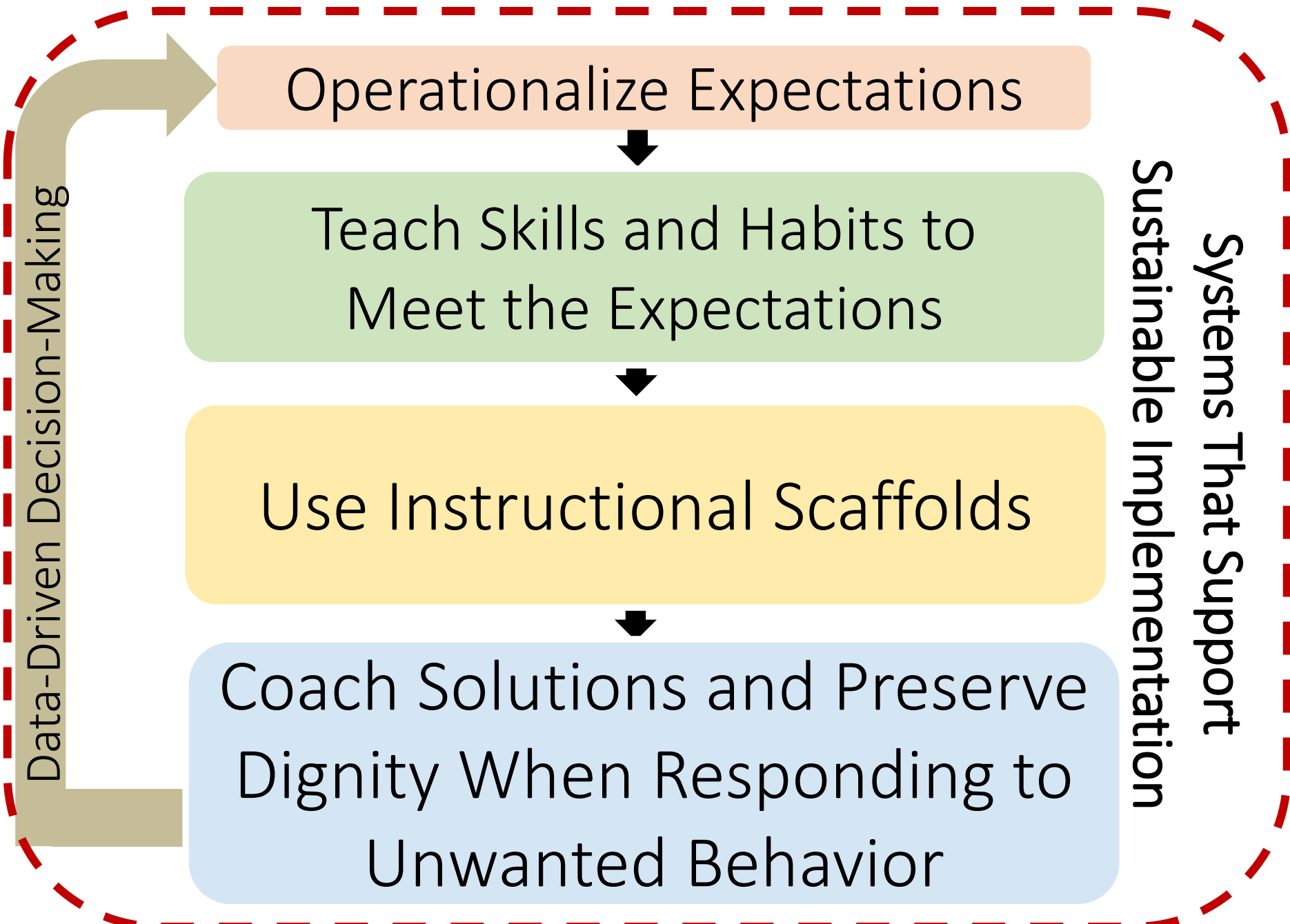


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Learning Outcomes

- At the end of this module, you will know:
- The research that supports the use of the 4:1 ratio
- The unit implementation outcome
- A preview of the unit content and implementation plan



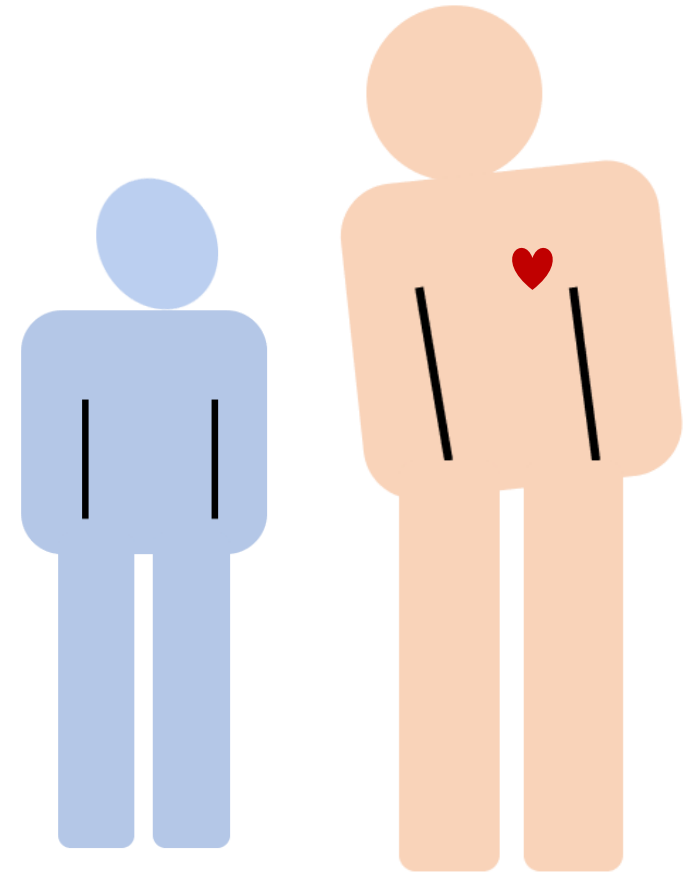


Interaction Opportunities in School Routines

Instructional
Practices

Supportive
Social
Exchanges

Behavior
Specific
Feedback



Origins of the Praise to Reprimand Ratio



Origins of the Praise to Reprimand Ratio

- In the 1970s famed Psychologist John Gottman began an initial line of research that would become known as the magic ratio – the rate of positive to negative interactions in a relationship
- Initially applied to marital relationships, the magic ratio is a bellwether of interactions across a range of settings and relationship types, including educational settings



Origins of the Praise to Reprimand Ratio

- **Patterns in Praise Delivery** (e.g., Burnett, 2001; Caldarella, 2021; Caldarella, et al., 2019; Handley, 2022; Pisacreta, 2011; White, 1975)
- **Praise Delivery Methods** (e.g., Floress & Beschta, 2017)
- **Effects of Praise** (e.g., Caldarella et al. 2020 ; Drake & Nelson, 2021; Jenkins et al., 2015; Monson, et al., 2020; Orr et al., 2020; Shuttleton, 2016; Wills et al., 2019)
- **PD Methods to Increase Praise Use** (e.g., Simonsen et al., 2013; Zoder-Martell, 2019)

50 years of research suggests that high rates of praise are associated with:

- High rates of on task behavior
- Low rates of disruptive behavior



Origins of the Praise to Reprimand Ratio

- Bhanji & Delgado (2013) noted that receiving praise and social acceptance is associated with neural activity in areas of the brain responsible for social decision-making
- Their review lends credence to the 50 years of social science research by providing a physiological explanation for why praise works

The brain recognizes and responds to praise as something 'good' in turn influencing social decision making (Bhanji & Delgado, 2013)



Origins of the Praise to Reprimand Ratio

- Adults over rely on reprimands and corrective statements over praise statements in educational settings (e.g., Burnett, 2002; Shores et al., 1993; White, 1975)

Reliance on reprimands is more likely to result in disruptive and noncompliant student behavior (e.g., Pas et al., 2015) and lower rates of engagement and perception of classroom climate (e.g., Mitchell & Bradshaw, 2013)



Origins of the Praise to Reprimand Ratio

- As students age or present with real or perceived academic and behavior difficulties, they have less access to teacher approval and praise (e.g., Caldarella et al., 2019; Gable et al., 1983; Reddy, 2013; Shores et al., 1993; White, 1975)
- Students with disabilities are particularly at risk for lower rates of praise despite doing better when high rates of praise are provided (Beaman & Wheldall, 1996; Caldarella et al., 2019; Ferguson & Houghton, 1992; Gorman-Smith, 2003; Richardson & Shupe, 2003; Sutherland, 2000; Van Acker et al., 1996)

Student with disabilities experience inverse praise ratios at disproportionate rates of 1 praise statement to 20 reprimands (Gorman-Smith, 2003)



Origins of the Praise to Reprimand Ratio

- 1:1, 3:1, 4:1, 5:1, 9:1 have been cited in published works and you will see all referenced in internet searches
- NJ PBSIS has adopted a 4:1 ratio and that is language you will see in our materials

Determining the best proportion may be context specific and implemented with an understanding of students' changing needs



4:1 Ratio: More Than Praise



Meaningful Implementation of the 4:1 Ratio

ABC

- Behavioral Theory: Reinforcement is a powerful tool



- Relational Health: The importance of personal connections



- Positive Psychology: Emphasize effort over accomplishment



- Brain Based Learning: Engage the student to reflect on their use of the skill, habit, or action



Relationship-Based Learning Environments:

- Are a protective factor for a range of behavior, academic, and health outcomes (e.g., Sieving et al., 2017)
- Contribute to positive culture and climate (e.g., Martin & Collie, 2019)



Relationship Influencers

Positive
Relationships

Negative
Relationships

Examples

Communication

A Sense of Trust and Consistency

Feeling Seen & Valued

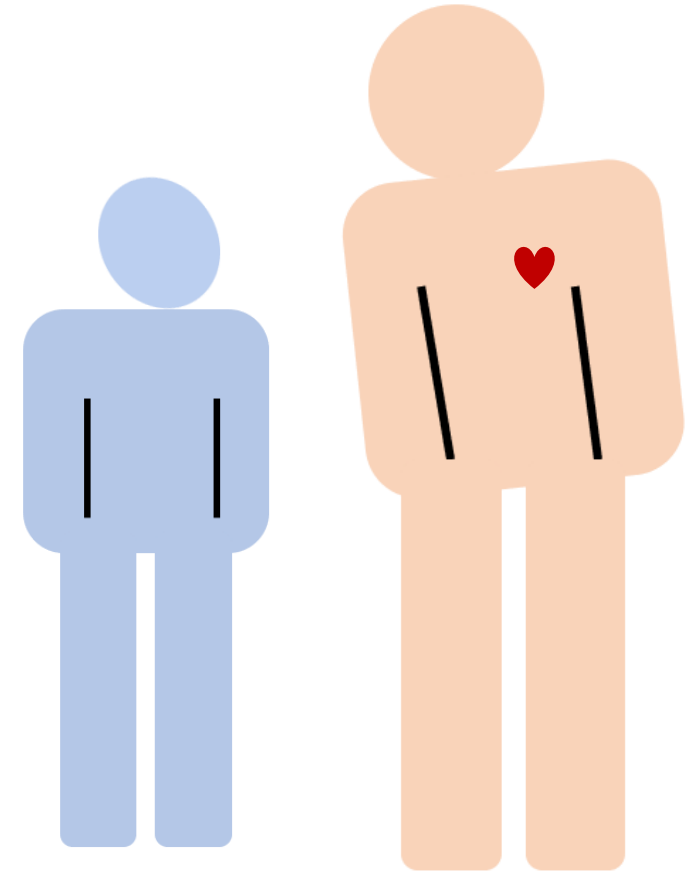
Experiencing Positive & Supportive Interactions

Shared and Collaborative Experiences



The Importance of Interactions in Relationships

- The strategies we use will **influence the quality of the relationship** we have with a student
- ...And the **quality of the relationship, will influence how effective we are** with the student during socially and emotionally vulnerable moments



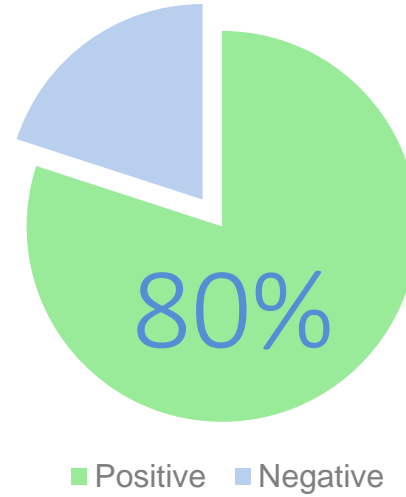
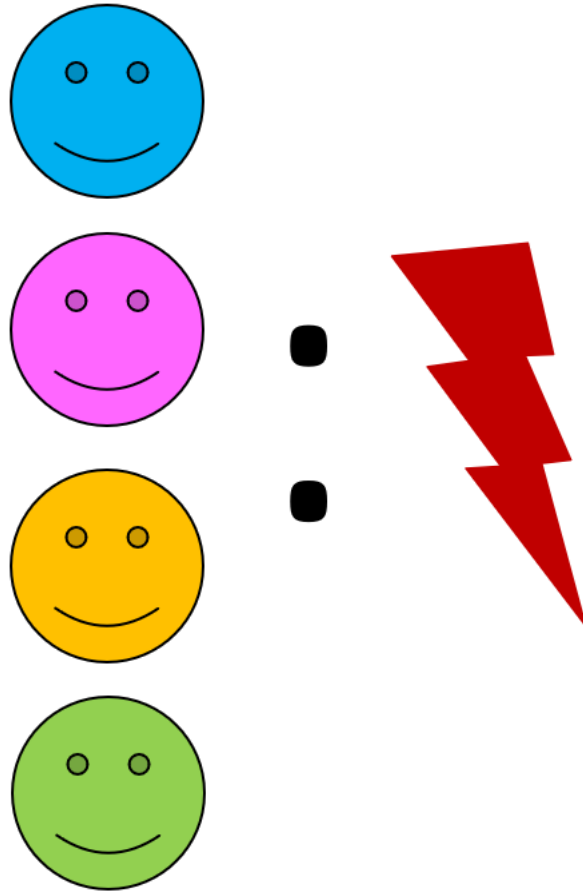
Meaningful Implementation of the 4:1 Ratio



Expands the frame of the praise to reprimand ratio to include interactions that support healthy social and emotional development



3 Ways to Think About the 4:1 Ratio



6 in every 15 minutes

An analog clock face with a red border. The hour hand is between 10 and 11, and the minute hand is pointing at 10. The numbers 12, 3, 6, and 9 are visible on the clock face.

View Randy Sprick's Video Explaining Praise Ratios (3.5 minutes)



“Am I paying more attention to positive behavior or more attention to negative behavior?” Randy Sprick



Types of Messages to Achieve the 4:1 Ratio

Supportive
Social
Exchanges

Greetings

Personal Interests

Help, Support and Comfort

Behavior
Specific
Feedback

Behavior Specific Praise

Growth Fostering Reflections

Ticket & Point Delivery



Main Ideas



Main Ideas

- 50 years of research provides a compelling base of evidence supporting the use of praise:
 - Social Science research has documented that praise results in better outcomes than reprimands
 - Cognitive Science research demonstrates that the brains reads the experience of receiving praise as something good



Main Ideas

- The implementation outcome for this is unit that all students have equitable access to experience positive interactions with staff at a 4:1 ratio through all daily routines
 - Establishing the 4:1 as a school culture norm
 - Building staff fluency in using interactions that achieve the 4:1 ratio
 - Implementing a school-wide system that structures the delivery of praise

