Evidenced-based practices in Tiered Systems: Lessons Learned from Systematic Reviews of Functional Assessment-based Interventions, Behavioral Contracts, and Behavior Specific Praise

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Agenda

1. Welcome
2. Functional Assessment-based Intervention (FABI)
3. Behavior Contracts
4. Behavior Specific Praise
5. Wrapping Up and Moving Forward

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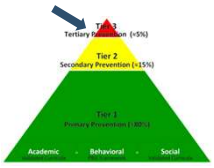
Functional Assessment-Based Intervention (FABI)


Functional Assessment-Based Intervention in PK–12 Schools: A Systematic Review and Meta-Analysis

Sarasin, E. M., Lane, K. L., Bernard, A. M., & Common, E. A. (2026). Functional Assessment-Based Intervention in PK-12 schools: A systematic review and meta-analysis. *Remedial and Special Education*. Advance online publication. https://doi.org/10.1177/07419325261470777

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What is Functional Assessment-Based Intervention?



Umbreit et al. (2007)

Lane and Oakes (2014)

Umbreit et al. (2024)



Project ENHANCE Research Team. (2024, August). *Functional assessment-based intervention: Introduction*. Author. https://doi.org/10.17161/ci3t.27768

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Systematic Literature Review Overview
FABI Research Questions

1. To what extent do FABI efficacy studies address **CEC (2014) quality indicators** (QI)?
2. What is the nature of the **evidence base** supporting FABI according to CEC (2014) EBP guidelines, applying an 80% minimum criterion for methodologically sound studies (Lane et al., 2009)?
3. What is the **magnitude effect size** of studies meeting technical requirements for log response ratio (LRR; within case) and between-case standardized mean difference (BC-SMD)?

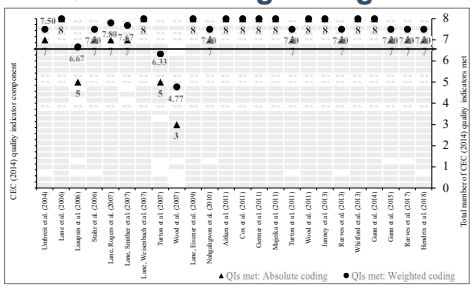
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Systematic Literature Review Overview
FABI Method

- 24 studies identified via electronic search, hand search, and author contact
  - Pre-k –12 school setting
  - FABI model (Umbreit et al. 2024; Umbreit et al. 2007, 2024)
  - Single-case research design (SCRD)
  - Graph of student performance
  - Published in a peer reviewed journal
- Quality Indicator coding based on CEC (2014)
- EBP classification based on CEC (2014)
- Meta-Analysis
  - Between-Case Standardized Mean Difference (Hedges et al., 2012, 2013)
  - Log Response Ratio (Pustejovsky, 2018)

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Key Findings
FABI RQ 1 Methodological Rigor



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Key Findings
FABI RQ 2 – EBP Classification

- Nine studies were eligible for EBP classification (i.e., met 80% weighted criterion *and* minimum of 3 cases)
- With 17 total participants across seven single-case studies demonstrating positive effects, we concluded FABI was a ***potentially evidence-based practice***



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Key Findings
FABI RQ 3 – Magnitude of Effects

- All studies demonstrated moderate-to-large effects.
- Mean LRR = 0.64 (*SD* = 0.97)
  - average behavioral improvement of 158% relative to baseline
- Mean BC-SMD = 1.39 (*SD* = 0.31)

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Learn More about FABI at ci3t.org!



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Learn More at Project EMPOWER!



EMPOWER Session	Date
Effective Tier 1 Practices for Positive, Productive Classrooms	September 15, 2026
Let the Data Drive: Using Systematic Screening to Shape Instruction	October 27, 2026
Ci3T in Action: Integrated Lesson Planning for Optimal Instruction	November 17, 2026
A 6-Step Instructional Approach for Responding to Challenging Behavior in Schools	January 20, 2027
A Tier 2 Intervention for Managing Anxious Feelings: Recognize. Relax. Record.	March 23, 2027
A Tier 3 Intervention: Functional Assessment-Based Intervention	April 28, 2027

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Behavior Contracts

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What is a Behavior Contract?

A behavior contract is a mutually agreed-upon document between at least two individuals in which one or both individuals agree to demonstrate a certain behavior or behaviors.

Behavior contracts have three components:

- Behavior
- Reward
- Recording Sheet



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Systematic Literature Review
Research Questions

1. What are the characteristics of school settings and K-12 students included behavior contract studies?
2. To what extent do studies of behavior contracts conducted with K-12 grade students in school settings meet the CEC (2014) quality indicators?
3. To what extent do methodologically sound studies of behavior contracts (i.e., studies meeting at least 80% of CEC QIs; Lane et al., 2009) meet the evidence-based standard established by the CEC (2014)?

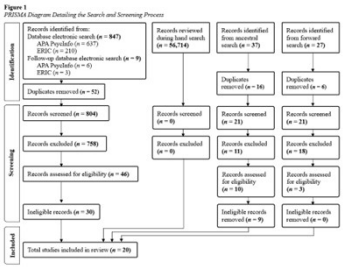
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Systematic Literature Review
Method: Inclusion Criteria

- Experimental research studies that include single-case or group experimental designs.
- K-12 participants with or without disabilities.
- Behavior contracts as the primary independent variable or intervention being evaluated.
  - The contract must be explicitly described as a written or documented agreement specifying behavioral expectations and associated consequences and/or rewards between the student and one or more other parties (e.g., teacher, parent, school staff).
  - Studies in which behavior contracts are only one component of a multicomponent intervention, and their effects cannot be isolated are excluded.
- Intervention is implemented in a K–12 educational setting, including general education classrooms, special education classrooms, resource rooms, self-contained classrooms, or other school-based environments (e.g., cafeteria, playground, hallway).
- The dependent variable includes at least one objectively measured and defined student behavioral outcome.

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Systematic Literature Review
Method: Search & Screening



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Systematic Literature Review
Method: Coding

- Quality Indicator Coding
  - Context and Setting
  - Participants
  - Intervention Agents
  - Description of Practice
  - Implementation Fidelity
  - Internal Validity
  - Outcome measures and Dependent Variables
  - Data Analysis

Quality indicators and evidence-base standards developed by the Council for Exceptional Children (CEC; 2014)

- Descriptive Coding
  - Context and Setting
  - Participants
- Evidence-base Coding
  - Positive
  - Neutral or Mixed
  - Negative

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Slides with preliminary data removed…look for the final study when published!

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Ci3T Behavior Contracts Module

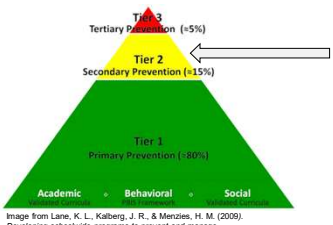


Image from Lane, K. L., Kalberg, J. R., & Menzies, H. M. (2009). *Developing schoolwide programs to prevent and manage problem behaviors: A step-by-step approach*



Ci3T Project ENHANCE Research Team. (2021, June). *Behavior contracts to support classroom behavior and engagement*. Author. https://doi.org/10.17161/ci3t.96879

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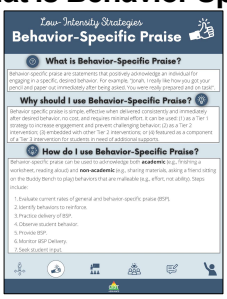


Behavior Specific Praise

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What is Behavior Specific Praise (BSP)?







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Systematic Literature Review Overview
BSP: Questions



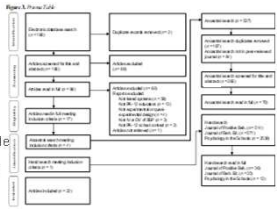
(1) Among the studies that met the inclusion criteria, how many met the 80 percent weighted Quality Indicator (QI) criteria?
(2) In studies meeting the 80 percent weighted QI criterion, what descriptive characteristics were reported regarding adult participants, study context, and tiered system in place?
(3) How was professional learning designed and delivered to support educators' implementation of BSP, including the intervention agent, format, duration, instructional components, materials, and assessment?
(4) How were treatment integrity for the professional learning procedures as well as social validity assessed and reported?

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Systematic Literature Review Overview
BSP: Method



- Search Procedures
  - Executed February 2025
  - ERIC via ProQuest
  - Inclusion & Exclusion criteria
    - empirical studies
    - studies in which educators learned or implemented BSP and in which BSP was implemented by an educator
    - BSP was the independent or dependent variable
    - Studies conducted in a school setting within a school or district implementing a tiered system
  - Training
  - QI coding
  - Descriptive coding



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Slides with preliminary data removed…look for the final study when published!

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Learn More at ci3t.org!





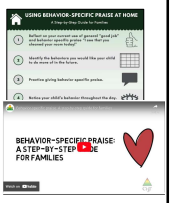
Infographic: Guiding Questions for the Classroom



Treatment Integrity Checklist



Social Validity Tool



Supports for Home Use

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Wrapping Up and Moving Forward

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Questions



Functional Assessment-Based Intervention (FABI)



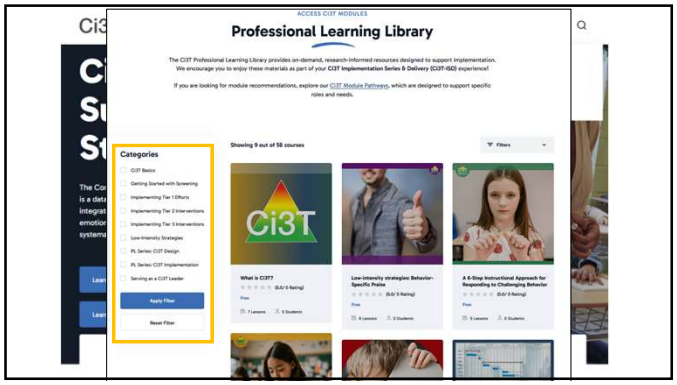
Behavior Contracts



Behavior Specific Praise

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Thank You!





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Ci3T | Comprehensive, Integrated, Three-Tiered Model of Prevention

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