Training Elementary General Educators to Implement Function-Based Support

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What is function-based support (FBS)?

3 consecutive processes:

- Conducting functional behavioral assessment
- Developing a behavior support plan (BSP)
- Implementing and evaluating the BSP

(Tobin, 2005)
Why is FBS important?

- **Improves problem behavior effectively and efficiently** (e.g., Newcomer & Lewis, 2004; Ingram, Lewis-Palmer, & Sugai, 2005).

- **Effective with a range of individuals** (Umbreit, Ferro, Liaupsin, & Lane, 2007, e.g., Liaupsin, Umbreit, Ferro, Urso, & Upreti, 2006; Hughes, Alberto, & Fredrick, 2006; Gettinger & Stoiber, 2006; Dixon et al., 2004)
Provisions included in the IDEIA regarding FBS

Mandated

Suggested

Children “with a disability”
Who is FBS not legislated for?
Who is FBS not legislated for?

- Youth without or with unidentified disabilities who fail to meet teacher’s expectations (Lane, Mahdavi, & Borthwick-Duffy, 2003)

- Youth who exhibit less intense but more frequent problem behaviors which put them at risk for several deleterious outcomes (e.g., Lane et al., 2003; Lane & Wehby, 2002; Edgar, 1992)

- Youth under-identified by school discipline systems
What school-based intervention services do such students receive?

Pre-referral intervention
Developed by a team of general educators, administrators, parents, and experts (Lane et al., 2003)

Typically results in non-function based, non-evidence-based interventions
(Lane et al., 2003, McDougal, Nastasi, & Chafouleas, 2006, Truscott et al.)
Solutions?

- Preliminary evidence indicates that elementary general educators are capable of providing FBS amid typical school duties and time limitations.
Solutions - Preliminary Evidences

Moore et al. (2002)
3 teachers
functional analysis
during classroom instruction

1 teacher
all three FBS processes independently
2 students
significant decreases in problem behaviors

Lane, Weisenbach, Little, Phillips, & Wehby (2006)
2 teachers
collaborated with “liaisons” - core components of FBS processes
one student each classroom
decreases in students’ problem behaviors
Aims of this study

- Replicate Maag & Larson’s (2004)
  - larger scale
  - all FBS processes independently

- Investigate a new, pragmatic, skills-based FBS training methodology

- Train general educators who were selected semi-randomly
Method

Setting

Suburban, Title I, elementary school

Students

868 students
Ethnicity
75% Caucasian
20% Hispanic
5% Other
18% with disabilities
15% ELL
40% free or reduced lunch

Faculty

30 general educators
4 special educators
1 part-time school psychologist
Method

Participants
General Educators
13 volunteers
6 selected
4 completed
Method

Participants - Teachers

Mrs. Anderson:
  4 years experience
  1st year, Kindergarten
  B.S., ESL endorsement
  22 students

Mrs. Bailey:
  3 years experience
  Second grade
  Master’s student
  22 students

Mrs. Oliver:
  15 years experience
  First grade
  B.S.
  25 students

Mrs. Walker:
  1st year, first-grade
  B.S.
  25 students
Method

Participants - Students
Selected by each teacher

Criteria:
(a) exhibiting behavior disruptive to teaching-learning processes
(b) not receiving any behavioral intervention-related services
(c) does not have an IEP
(d) not receiving ELL services

Danny - Kindergarten
Andrew - 1st Grade
Dominic - 1st Grade
Landon - 2nd Grade
Method

Function-Based Support Training

Adapted and modified from Umbreit, Ferro, Liaupsin, & Lane (2007)

Consisted of 3 core components:
  • in-vivo training
  • independent reading and applied activities
  • individual consultation

Continuously “in process” throughout the study
Method

Function-Based Support Training

In-vivo training

- 4 one-hour training sessions
- 3 FBS processes
- Power Point presentations, handouts, activities
- Conducted after school
- Group setting
Method

Function-Based Support Training

Independent reading and applied assignments

10 brief reading assignments
Umbreit et al. (2007)

10 independent applied activities
Method

Function-Based Support Training
2 Individual consultations

1. After FBA completion
2. After BSP completion
Method

Experimental design

4 AB designs  (see Alberto & Troutman, 2006)

• One for each student

1 modified multiple-baseline design

• For FBS Knowledge Test scores

• Based on Miller and Weaver’s (1972) multiple-baseline achievement test
Results

General Educators
FBS Knowledge Test Scores (avg.)

- **Baseline**
  - Section 1: 6.25
  - Section 2: 5.75
  - Section 3: 6.25

- **Training 1:**
  - Section 1: 8.94
  - Section 2: 6.56
  - Section 3: 6.25

- **Trainings 2 & 3:**
  - Section 1: 9.69
  - Section 2: 8.25
  - Section 3: 6.5

- **Training 4:**
  - Section 1: 9.69
  - Section 2: 8.81
  - Section 3: 8.25
## FBA & BSP

**Teacher/Student:** Anderson & Danny

<table>
<thead>
<tr>
<th>FBA</th>
<th>BSP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target Behavior</strong></td>
<td><strong>Function</strong></td>
</tr>
<tr>
<td>Off-task</td>
<td>PRš Attention</td>
</tr>
<tr>
<td>Talking to peers</td>
<td>NRš Activity</td>
</tr>
<tr>
<td>Playing with objects on desk</td>
<td></td>
</tr>
<tr>
<td>Using materials inappropriately</td>
<td></td>
</tr>
</tbody>
</table>

### Notes
- **FBA & BSP**
- **Teacher/Student:** Anderson & Danny
- **Target Behavior**
  - Off-task: Talking to peers, Playing with objects on desk, Using materials inappropriately
- **Function**
  - PRš: Attention
  - NRš: Activity
- **Replacement Behavior**
  - On-task: Looking at and/or working on the task at hand, Talking to peers only to receive help
- **Intervention Method**
  - Adjust the contingencies
- **Antecedent Adjustment**
  - Reminder of expectations
- **Reinforcement Adjustment**
  - Reminder of reinforcement possibilities
- **Extinction**
  - Praise
  - Verbal Tokens
  - Get out of a Center free card

**Duration**
Results - Anderson & Danny

On-Task Behavior

Session:

Observer
Teacher
### FBS & BSP

**Teacher/Student:** Walker & Andrew  
**FBA**

<table>
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<th>Function</th>
<th>Replacement Behavior</th>
<th>Intervention Method</th>
<th>Antecedent Adjustment</th>
<th>Reinforcement Adjustment</th>
<th>Extinction</th>
<th>Data Collection Method</th>
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<tbody>
<tr>
<td>Inattentive Behavior:</td>
<td>PR Š Attention</td>
<td>Attentive Behavior:</td>
<td>Adjust the contingencies</td>
<td>Reminder of expectations</td>
<td>Praise</td>
<td>Teacher and students ignore target behavior</td>
<td>Rate</td>
</tr>
<tr>
<td>Humming</td>
<td>Sitting quietly, facing teacher, eyes on teacher</td>
<td>Student: Review of replacement behavior</td>
<td>Verbal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clicking tongue</td>
<td>Hands and feet to self</td>
<td>Entire Class: Ignore inappropriate behavior of other students</td>
<td>Praise note at end of class</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Touching, whispering to and making faces at peers</td>
<td>Talking only to participate in class</td>
<td>Reinforcer exchange</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**BSP**
Results - Walker & Andrew

![Graph showing inattentive behavior over sessions for observer and teacher](image)

Inattentive Behavi

- Observer
- Teacher

Session:

1 2 3 4 5 6 7 8
## FBA & BSP

**Teacher/Student:** Oliver & Dominic

### FBA

<table>
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<th>Target Behavior</th>
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<th>Intervention Method</th>
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<th>Reinforcement Adjustment</th>
<th>Extinction</th>
<th>Data Collection Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inattentive Behavior:</td>
<td>PR Attention</td>
<td>Attentive Behavior: Sitting in learning position, Looking at the teacher, Talking only to participate in classroom discussion</td>
<td>Improve the environment</td>
<td>Moved seating to close proximity with teacher, Reminder to class of expectations, Reminder to student of reinforcement possibilities</td>
<td>Praise, Verbal Written</td>
<td>Teacher ignoring behavior</td>
<td>Rate</td>
</tr>
</tbody>
</table>
Results - Oliver & Dominic

Inattentive Behavior

Session

Observer
Teacher
## FBA & BSP

### Teacher/Student: Bailey & Landon

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<tr>
<td><strong>Target Behavior</strong></td>
<td><strong>Function</strong></td>
</tr>
<tr>
<td><strong>Off-Task Behavior:</strong></td>
<td>PR $\bar{S}$ Attention</td>
</tr>
<tr>
<td>Playing with instructional and non-instructional objects</td>
<td></td>
</tr>
<tr>
<td>Leaving seat to talk to peers or talking to peers</td>
<td></td>
</tr>
<tr>
<td>Not looking at task at hand</td>
<td></td>
</tr>
</tbody>
</table>

### Antecedent Adjustment:
- Adjust the contingencies

### Reinforcement Adjustment:
- Praise
- Verbal
- Tokens
- Reinforcer exchange

### Extinction:

### Data Collection Method:
- Duration
Results - Bailey & Landon

Inattentive Behavior

Session:

Observer
Teacher
Method

Interobserver Agreement

44% of all observations

Andersen  95% (range 93-98%)
Walker     95% (range 85-100%)
Olsen      91% (range 85-100%)
Bailey     92% (range 86-92%)
Method

Social Validity

Questionnaire

- 11 agreement questions
  6 point Likert scale
  (strongly disagree – strongly agree)

- 4 free response questions
  3 rationale questions
  1 general opinion question
Results

Social Validity

Intervention Evaluation

• Despite mixed data, all teachers reported significant behavior change in their students

Social Validity Questionnaire results

• Varying levels of agreement on all but one question
### Function-Based Support Training: Social Validity Questionnaire

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel this training provided information that helped me improve my student’s problem behavior.</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>I feel this training provided information that would be beneficial for all teachers to learn.</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>I feel the most beneficial part of the training was . . .</td>
<td>Response: Learning effective problem behavior management; learning to identify function of problem behavior; learning to define target behaviors; learning how to design an intervention.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel I will apply these principles with other students, throughout my teaching career.</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>I feel the reading assignments helped me to gain a better understanding of the material.</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>I feel the applied assignments helped me to organize and apply the information I learned.</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>I feel the two brief consultation sessions helped me to better understand and apply the material.</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>I feel the time required to participate in the four after-school trainings was doable with my school schedule.</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>I agree/disagree with the above statement because . . .</td>
<td>Response: It was a stretch, but doable; the end of the year caused interference; It was a rough time of year.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel the time required to implement these principles in the classroom was doable with my school schedule.</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>I agree/disagree with the above statement because . . .</td>
<td>Response: It was difficult during testing—I had to stop testing and fell behind.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel the time required to complete the applied assignments was doable with my school schedule.</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>I agree/disagree with the above statement because . . .</td>
<td>Response: N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel I would have been willing to spend more time learning this material, if needed.</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>I feel that most teachers would be able to spend the time it takes to participate in this training.</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Additional feedback:** Collecting data conflicted with my teaching and made it "choppy"; ABC observations difficult to do during instruction; this time of year (end) wasn't the best; would be more beneficial at the beginning of the year.
Discussion

- Student Outcomes
- General Educators’ Knowledge Acquisition
- Social Validity
Questions?