Improving Positive Classroom Behavior Support Through Applied Behavior Analysis

Bob Putnam Ph.D. BCBA-D, LABA
Whitney Kleinert Ph.D.
May Institute, Inc.

9th Annual Convention of the Mass Association for Behavior Analysis
March 2019
Session Objectives

Participants will learn to...

• apply assessment strategies to the selection and implementation of effective classroom-wide practices;
• use evidence-based methods used to train teachers in evidenced based classroom-wide behavior support practices;
• use a data-based decision process with teachers to modify classroom behavior support practices.

Case examples of improving positive classroom behavior support practices will be presented.
The Challenge

- Inverse relationship between academic performance and problem behavior across grade levels.  (McIntosh, 2005; Lassen, Steele & Sailor, 2008; Tobin & Sugai, 1999)

- Approximately 1/3 of students identified as academically at-risk experienced a combination of academic- and behavior-related deficits.  (Reinke et al., 2008) This number may be even higher, perhaps over 50%.  (Hinshaw, 1992)
The Challenge

- Existing teacher training programs often leave teachers ill-equipped to effectively manage classroom dynamics.
  (Begeny & Martens, 2006; Chesley & Jordan, 2012)

- For decades, teachers have reported classroom management as their highest-needed area for professional development.
  (Rollin, Subotnik, Bassford, & Smulson, 2008)
A minority of teacher training programs in the country include didactic or hands-on training on antecedent strategies such as creating effective learning environments through classroom management strategies. (Freeman, Simonsen, Briere, & Mac Suga, 2013)
When teachers receive training in this area, this may increase their preparedness, confidence, knowledge, and competence in implementing classroom management procedures. (O’Niell & Stephenson, 2012; Piwowar, Thiel, & Ophart, 2013)
Without proper training, successful implementation of classroom management strategies may be impossible to achieve...

... and ultimately lead to reliance on responding ineffectively to behavioral challenges.
Typical responses to disciplinary issues include:

- Suspension
- Expulsion
- Other forms of removal from the educational environment

(Noltemeyer & Mcloughlin, 2010)
These responses, do not improve outcomes for students (Fenning & Rose, 2007) but instead only exacerbate the problem and may lead to – not exhaustive – academic failure, grade retention, and involvement in the juvenile justice system (e.g., Noltemeyer & McLoughlin, 2010).
The Challenge

Poor classroom discipline and instructional practices have detrimental impacts on both teacher and student performance.

- 12% of beginning public school teachers leave the teaching field within 2 years (Kaiser & National Center for Educational Statistics, 2011)
- 46% of all new teachers in the United States leave the profession within 5 years of entering the classroom (DeAngelis & Pressley 2011)
- **On a national survey of teachers, 17% cited discipline issues as a key reason for leaving or switching schools.** (Carver-Thomas & Darling-Hammond, 2017)
Evidenced-based Practices
• Do the simplest thing that will result in the biggest outcomes

Rob Horner
Evidence-based Practices in Classroom Management: Considerations for Research to Practice

Brandi Simonsen
Sarah Fairbanks
Amy Briesch
Diane Myers
George Sugai
University of Connecticut
Classroom management practices were considered evidenced based if they were:

- Evaluated using sound experimental design and methodology
- Demonstrated to be effective
- Supported by at least three empirical studies published in peer reviewed journals

(Simonsen, et al.; 2008)
Effective Classroom Practices

- Minimize crowding and distraction
- Maximize structure and predictability
- 3-5 positively stated expectations
- More frequent acknowledgment
- Multiple opportunities to respond
- Actively engaged
- Actively supervise
- Ignore & provide quick explicit redirections
- Multiple strategies to acknowledge
- Specific feedback on behavior errors
• Maximize structure and predictability
  – High classroom structure (e.g., amount of teacher directed activity) (Huston-Stein, Friedrich-Cofer, & Susman, 1977; Morrison, 1979; Susman, Huston-Stein, & Friedrich-Cofer, 1980)
  – Physical arrangement that minimizes distraction (e.g., walls, visual dividers, etc) and crowding (Ahrentzen & Evans, 1984; Burgess & Fordyce, 1989; Maxwell, 1996; Weinstein, 1977)
What Do We Know

• Post, teach, review, monitor, and reinforce expectations
  – Post, teach, review, monitor, and provide feedback on expectations (Greenwood, Hops, Delquadri, & Guild, 1974; Johnson, Stoner, & Green, 1996; McNamara, Evans, & Hill, 1986; Rosenberg, 1986; Sharpe, Brown, & Crider, 1995)
  – Active supervision (Colvin, Sugai, Good, & Lee, 1997, DePry & Sugai, 2002, Schuldheisz & Van der Mars, 2001)
Using Active Supervision and Precorrection to Improve Transition Behaviors in an Elementary School

Geoff Colvin, George Sugai, Roland H. Good III, and Young-Yon Lee
College of Education, University of Oregon
Precorrection and Active Supervision

As precorrection & active supervision increased, problem behaviors decreased.
Effects of Teacher Greetings on Student On-task Behavior

R Allan Allday and Kerri Pakurar
Upon introduction of teacher greeting, duration of on task behavior increased across subjects.
USING TEACHER GREETINGS TO INCREASE SPEED TO TASK ENGAGEMENT

R. Allan Allday, Miranda Bush, Nicole Ticknor, and Lindsay Walker
Upon introduction of teacher greeting and brief review of the expectation, the latency to on task behavior decreased across subjects.

Figure 1
Latency to task engagement (in seconds).
Positive Greetings at the Door consisted of:

- Positive connecting with each student
- Delivering pre-corrective statements to the whole class
- Privately providing pre-corrective statements and individual encouragement to those students who struggled the day before
- Delivering behavior specific praise to certain students to reinforce desired behavior of being on time
The PGD showed decreases in disruptive behavior and increases in percentage of time academically engaged.
Upon introduction of teacher greeting and brief review of the expectation, the latency to on task behavior decreased across subjects.
What Do We Know

• Actively engage students in observable ways
  – Rate of opportunities to respond (OTRs) (Carnine, 1976, Sindelar, Bursuck, & Halle, 1986, Sutherland, Alder, & Gunter, 2003, West & Sloane, 1986)
  – Direct instruction
  – Computer assisted instruction
  – Classwide peer tutoring
  – Guided notes
Response Cards
Plickers

How to host a live game of Kahoot

Empower students to shape their learning

Watch later Share

May Institute
Shaping Futures, Changing Lives
What Do We Know

• Use a continuum of strategies to acknowledge appropriate behavior
  – Specific and/or contingent praise
    Moore, Maggin, Thompson, Gordon, Daniels, & Long, 2019; Chalk & Bizo, 2004; Craft, Alber, Heward, 1998; Ferguson, & Houghton, 1992; Sutherland, Wehby, & Copeland, 2000;
  – Class-wide group contingencies
  – Behavioral contracting
  – Token economies
What Do We Know

• Use a continuum of strategies to respond to inappropriate behavior
  – Error corrections
    • Academic
    • Social behavior
  – Performance feedback
  – Planned ignoring
  – Response cost
  – Timeout from reinforcement
Study 1
What are the staff’s most significant instructional behaviors to be targeted?
School Demographics

- **School Characteristics**
  - States across the US: 6
  - Schools: 10
  - Classrooms: 92
  - Observations: 109

- **Grade levels**
  - K-2: 49
  - 3-5: 50
  - 6-8: 10
Data Collection

- Student on task behavior
- Teacher instruction
- Teacher praise statements
- Teacher behavior corrections
- Teacher active supervision
Acknowledgement!

NOTICE

THANK YOU FOR NOTICING THIS NEW NOTICE

YOUR NOTICING IT HAS BEEN NOTED

AND WILL BE REPORTED TO THE AUTHORITIES
• Classroom observations during large-group instruction

• Observational system based on alternating 15s intervals between teacher and students ranging from 10-20 minutes (average = 14.5 minutes)

• **Reliability**
  – occurrence and non-occurrence >80% for student and teacher behaviors; kappa = .74
Results

• On-Task Rates by School Performance

HIGH Performance Schools (N=3) 76.2%

MEDIUM Performance Schools (N=4) 67.3%

LOW Performance Schools (N=3) 60.4%
Results

- Behavior Correction had a significant moderate inverse relation to on-task performance ($p < .000, r = -.529$)
- Praise Statements had a significant low positive relation to on-task performance ($p = .002, r = .287$)
The Relationship Between Teachers’ Implementation of Classroom Management Practices and Student Behavior in Elementary School

Nicholas A. Gage, PhD¹, Terrance Scott, PhD², Regina Hirn, PhD², and Ashley S. MacSuga-Gage, PhD¹
Teacher Behavior Predicts Student Behavior

Consider the degree to which teachers provide:

- Focus on students (time spent teaching)
  - Teacher drives the lesson examples and activities to meet learning target
- Opportunities to respond (OTR)
  - Teacher provides students with opportunities to be engaged with content
- Positive feedback
  - Teacher provides frequent positive acknowledgement for student success

- Teachers using the least amount of these practices have students that are 27% more likely to be off task and 67% more likely to be disruptive

(Goga, Scott, Him & MacSuga-Gaga, 2018)
Research Article

Increasing Teachers' Use of a 1:1 Praise-to-Behavior Correction Ratio to Decrease Student Disruption in General Education Classrooms

Jeffrey Pisacreta, Matthew Tincani, James E. Connell, Saul Axelrod

First published: 26 October 2011 | https://doi.org/10.1002/bin.341 | Cited by: 16
Upon increase of praise to behavior correction to a 1:1 ratio, problem behavior decreased.

Figure 1. Teachers’ ratio of praise-to-behavior correction and students’ intervals of disruption across baseline, modeling and performance feedback, and performance feedback only conditions in the training setting.
Assessment
Assessment

• Data collection to support or refute hypotheses regarding level of need
  – Office Discipline Referral (ODR) data
  – Self-assessment of Classroom Behavior Strategies
  – Classroom daily schedule
  – Classroom observation data
• **Use School-wide data to identify teachers in need of additional supports**
  – Office Discipline Referral (ODR) data → identify teachers with highest referral rates
  – Provide additional training and consultation
• General data decision rules to support classroom support (SWIS Manual, 2018)
  – More than 60% of referrals come from the classroom (School-wide support)
  – More than 50% of the referrals come from less than 10% of the classrooms (Individual classroom support)
Assessment

Referrals By Staff

Number of Referrals

0  5  10  15  20  25  30  35  40

MayInstitute
Positive Behavioral Interventions & Supports
Shaping Futures, Changing Lives
• Use ODRs to identify specific teacher referral patterns
  – Examine patterns by:
    • Time
    • Problem Behavior
    • Location
  – Use patterns to develop the intervention plan
Assessment

Referrals by Time of Day (teacher level data)
Assessment

Referrals by Problem Behavior (teacher level data)
Assessment

Students by ODRs

- Jose
- Miquel
- Tim
- Rob
- George
- Heidi
- Walter
- Nancy
- Cynthia
- Alice
- Sarah
- Bob
- John
- Mary
- Stephen
- Susan
- Paul
- Enrique
- Fred
- James
## Classroom Daily Schedule

<table>
<thead>
<tr>
<th>Subject</th>
<th>Time</th>
<th>Before School</th>
<th>MATH 8:30</th>
<th>READING Lg Group 9:30</th>
<th>Small Grp 10:30</th>
<th>SPECIAL 11:30</th>
<th>Hallway 12:45</th>
<th>LUNCH 12:10</th>
<th>RECESS 12:30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most Difficult</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Least Difficult</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Classroom Daily Schedule Example**

- Most Difficult: 6
- 5
- 4
- 3
- Least Difficult: 1

**Difficult Classes:**

- **6**
- **5**
- **4**
- **3**

**Least Difficult Class:**

- **1**
# Classroom Self-Assessment

## Classroom Management: Self-Assessment

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Rater</th>
<th>Date</th>
<th>Instructional Activity</th>
<th>Time Start</th>
<th>Time End</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Tally each Positive Student Contacts</th>
<th>Total #</th>
<th>Tally each Negative Student Contacts</th>
<th>Total #</th>
</tr>
</thead>
</table>

Ratio² of Positives to Negatives: _____ to 1

<table>
<thead>
<tr>
<th>Classroom Management Practice</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have arranged my classroom to minimize crowding and distraction</td>
<td>Yes No</td>
</tr>
<tr>
<td>2. I have maximized structure and predictability in my classroom (e.g., explicit classroom routines, specific directions, etc.).</td>
<td>Yes No</td>
</tr>
<tr>
<td>3. I have posted, taught, reviewed, and reinforced 3-5 positively stated expectations (or rules).</td>
<td>Yes No</td>
</tr>
<tr>
<td>4. I provided more frequent acknowledgement for appropriate behaviors than inappropriate behaviors (See top of page).</td>
<td>Yes No</td>
</tr>
<tr>
<td>5. I provided each student with multiple opportunities to respond and participate during instruction</td>
<td>Yes No</td>
</tr>
<tr>
<td>6. My instruction actively engaged students in observable ways (e.g., writing, verbalizing)</td>
<td>Yes No</td>
</tr>
<tr>
<td>7. I actively supervised my classroom (e.g., moving, scanning) during instruction.</td>
<td>Yes No</td>
</tr>
<tr>
<td>8. I ignored or provided quick, direct, explicit reprimands/redirections in response to inappropriate behavior.</td>
<td>Yes No</td>
</tr>
<tr>
<td>9. I have multiple strategies/systems in place to acknowledge appropriate behavior (e.g., class point systems, praise, etc.)</td>
<td>Yes No</td>
</tr>
<tr>
<td>10. In general, I have provided specific feedback in response to social and academic behavior errors and correct responses.</td>
<td>Yes No</td>
</tr>
</tbody>
</table>

Overall classroom management score:

10-8 “yes” = “Super”
7-5 “yes” = “So-So”
<5 “yes” = “Improvement Needed”

PBIS Positive Behavioral Interventions & Supports

MayInstitute Shaping Futures, Changing Lives
Classroom Observations

• Conduct Classroom Observations
  – Identify baseline levels of teacher and student behaviors
  – Classroom Observation System (Handler & Putnam, 2018)
    • Instructional Activities
    • Proactive Monitoring/ Active Supervision
    • Praise
    • Behavior Correction
    • On-Task
    • Off-Task
  – Research indicates that these teacher behaviors impact student on-task time, which in turn impacts achievement (Gettinger & Seibert, 2002; Houghton et al., 1991; Sutherland et al., 2000)
Classroom Observations

• **Classroom Observation System** (Handler & Putnam, 2018)
  
  – Instructional Activities
    • Delivering instructional content or soliciting academic response from students (group or individual)

  – Proactive Monitoring
    • Moving around the room and/or scanning to observe student behavior

  – Praise
    • Delivering praise to students demonstrating expected behaviors

  – Behavior Correction
    • Delivering statements illustrating correct behavior (e.g., “Please sit down”) or statements illustrating what NOT to do (e.g., “Stop talking”)
- On-task
  - Engagement in academic activity
- Off-task
  - Non-engagement in academic activity for at least 3 seconds

(Classroom Observation System (cont.)
(Handler & Putnam, 2018)
Classroom Observation

Instruction: 80%
Praising: 38%
Behavior Correction Active Supervision: 30%
On task: 80%
Off Task: 18%

Percent Intervals
Design a Solution

• Two Components:
  – Training (6 hours)
    • Understand Challenging Behavior and Function
    • Develop a classroom-wide behavior support plan (CwBSP)
  – Individual consultation
  – Apply CwBSP practices through direct instruction, modeling, performance feedback

CwBSP Flow Chart
Design a Solution – CwBSP Training

- **Class-wide Behavior Support Plan (CwBSP) including:**
  - Positive Class Wide Behavioral Expectations
    - Use referral data to identify target behaviors, times of day, etc.
  - Lesson Plans to teach expectations to students
    - Identify when and how to teach rules/expectations
  - Methods to monitor student performance of behavioral expectations
    - Proactive monitoring, giving effective directions
Design a Solution – CwBSP Training

• **CwBSP components (cont.)**
  – A system for reinforcing students when they demonstrate behavioral expectations
    • Reinforcement procedures unique to the classroom environment
    • Plans to reinforce at a 4:1 ratio
  – Strategies to prevent and reduce inappropriate behaviors
    • Physical arrangement of the classroom
    • Methods of organizing instructional activities
    • Managing transitions
    • Corrective procedures
<table>
<thead>
<tr>
<th>Our Classroom</th>
<th>Be Ready</th>
<th>Be Respectful</th>
<th>Be Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entering the classroom</td>
<td>•</td>
<td>• move quietly to your desk</td>
<td>• be on time</td>
</tr>
<tr>
<td>Group instruction</td>
<td>• books open</td>
<td>•</td>
<td>• ask questions for clarification</td>
</tr>
<tr>
<td>Independent seatwork</td>
<td>• name on paper</td>
<td>• work quietly</td>
<td>•</td>
</tr>
<tr>
<td>Exiting the classroom</td>
<td>• wait quietly</td>
<td>• stay to the right</td>
<td>• walk slowly</td>
</tr>
</tbody>
</table>
• Research suggests that providing teachers with direct training and performance feedback related to intervention implementation has shown great promise to increase treatment integrity (Mortenson & Witt, 1998; Noell, Witt, Gilbertson, Ranier, & Freeland, 1997; Sterling-Turner, Watson, & Moore, 2002; Witt, Noell, LaFleur, & Mortenson, 1997).
Study 2

(Feinberg & Hardy, 2013)
Settings and Participants

- A northeastern elementary school general education classroom
- A ratio of 1 teacher and 22 students
- Aide support was provided intermittently weekly
- Classroom support was determined as a result of an individual student referral
  - However data indicated that multiple students in the classroom had challenging behavior and then a classroom BSP was determined needed.
Consultation Structure

• Bi-weekly 30 minute consultation visits for 4 months during the school year
• Consultation visits occurred outside of the classroom in the library
• Each visit was pre-planned and designed to review a particular training topic.
• Goal of consultation visits was to develop a personalized classroom behavior support plan
• Permanent products (Classroom BSP components) were finalized by teacher after the visit and electronically sent to the consultant
• All modifications were conducted via email or phone prior to the next meeting
Consultation Training Topics

Month 1
(3 meetings)
• Behavioral Expectations
• Classroom Routines

Month 2
(2 meetings)
• Behavioral Lesson Plans
• Acknowledgement Systems

Month 3
(2 meetings)
• Continuum of Consequences
• Monitoring and Evaluation
# Classroom Management: Self-Assessment

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Rater</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Instructional Activity</th>
<th>Time Start</th>
<th>Time End</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tally each Positive Student Contacts</th>
<th>Total #</th>
<th>Tally each Negative Student Contacts</th>
<th>Total #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ratio of Positives to Negatives: _____ to 1

<table>
<thead>
<tr>
<th>Classroom Management Practice</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have arranged my classroom to minimize crowding and distraction</td>
<td>Yes No</td>
</tr>
<tr>
<td>2. I have maximized structure and predictability in my classroom (e.g., explicit classroom routines, specific directions, etc.)</td>
<td>Yes No</td>
</tr>
<tr>
<td>3. I have posted, taught, reviewed, and reinforced 3-5 positively stated expectations (or rules).</td>
<td>Yes No</td>
</tr>
<tr>
<td>4. I provided more frequent acknowledgement for appropriate behaviors than inappropriate behaviors (See top of page)</td>
<td>Yes No</td>
</tr>
<tr>
<td>5. I provided each student with multiple opportunities to respond and participate during instruction.</td>
<td>Yes No</td>
</tr>
<tr>
<td>6. My instruction actively engaged students in observable ways (e.g., writing, verbalizing)</td>
<td>Yes No</td>
</tr>
<tr>
<td>7. I actively supervised my classroom (e.g., moving, scanning) during instruction.</td>
<td>Yes No</td>
</tr>
<tr>
<td>8. I ignored or provided quick, direct, explicit reprimands/redirections in response to inappropriate behavior.</td>
<td>Yes No</td>
</tr>
<tr>
<td>9. I have multiple strategies/systems in place to acknowledge appropriate behavior (e.g., class point systems, praise, etc.).</td>
<td>Yes No</td>
</tr>
<tr>
<td>10. In general, I have provided specific feedback in response to social and academic behavior errors and correct responses.</td>
<td>Yes No</td>
</tr>
</tbody>
</table>

Overall classroom management score:

- 10-8 “yes” = “Super”
- 7-5 “yes” = “So-So”
- <5 “yes” = “Improvement Needed”

Revised from Sugai & Colvin

To calculate, divide # positives by # of negatives.
Example: Classroom Self-Assessment

**Pre-Assessment**

Teacher reported that she had all features in place with the exception of minimizing crowding and distraction and multiple systems to acknowledge students.
Rate of Praise and Negative Statements Per Minute

Baseline  Intervention  3 month follow-up

Date: [Insert Date]

Observation

- General Praise
- Specific-Labeled Praise
- Negative Statements

PBIS Positive Behavioral Interventions Support

May Institute Shaping Futures, Changing Lives
Rate of Praise and Negative Statements Per Minute

Baseline   Intervention   3 month follow-up

Observation

- General Praise
- Specific-Labeled Praise
- Negative Statements

PBIS Positive Behavioral Interventions & Supports

May Institute Shaping Futures. Changing Lives
Study 3
Performance Feedback Example

• **Participant**
  – Subject was a white female, in her mid 40s with approximately 20 years teaching experience.
  – She held a general education, K-8 teaching certificate
  – Taught sixth grade language arts in a Mid-Atlantic inner city middle school

• **Setting**
  – All observations, CwBSP development, training and consultation occurred in subject’s classroom.
Procedure

• **Baseline** –
  – Collected office referral data
  – Conducted four classroom observations

• **Training and Consultation** –
  – Collected office referral data
  – Conducted three classroom observations
  – Provided feedback based on the observation results
  – Set goals based on areas that were targeted as needing improvement
Classwide Observations

Pre-intervention

Percent of Intervals

Praise to Correction Ratio 1:2.8

Instruction 40
Praising 5
Behavior Corr 20
Active Super 10
On task 90
Off task 40

Teacher Behavior

Student Behavior

May Institute
Classwide Observations

Praise to Correction Ratio: 1.4:1
Breakdown of ODRs Pre CwBSP Implementation

- 6+ referrals: 2.5%
- 2-5 referrals: 30%
- 0-1 referral: 67.5% of Students
Office Referral Data (Pre-implementation)

Number of Referrals (Sep. 03 - Feb. 04)

Number of students

Referrals

Student X was a school-wide frequent flyer
Office referral Data (Post implementation)

Number of Referrals (March 04 - June 04)

- Student X had one referral in four months.
Example Summary

• 97.5% of students responded to the universal strategies
  – With the use of universal interventions there was an 85% decrease in OR/month

• Small group interventions were to be targeted for 2.5% of the student population

• Frequent flyers were at 0%
Supporting and Responding to Behavior

Evidence-Based Classroom Strategies for Teachers

No progress in the achievement gap in 50 years, new study says
A teacher’s ability to create student success now has a significant impact on the predictability of future success.

- Disadvantaged students get less teacher attention and instruction (Scott, Hirn & Cooper, 2017)
- Students with identified behavioral issues receive less instruction and more negative feedback from teachers (Hirn & Scott, 2014)
- Minority students (males) receive more negative feedback from teachers (Scott & Gage, in press)
For More Information …

Bob Putnam
bputnam@mayinstitute.org
Whitney Kleinert
wkleinert@mayinstitute.org