Keep Calm and Stay Engaged: The Multipathway to Student Engagement in School

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August 11, 2018 Richard Snow Award Address
Story in the Mountains
Story in the Mountains
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Research-Practice Partnership Models

• Model I: Policy-Driven

• Model II: Research-Driven

• Model III: Practice-Driven
Model I: Policy-Driven
Student Engagement Measurement
Study Aims

• Use mixed-methods approach to develop and validate multi-method and multi-informant student engagement instruments
  • School engagement and disengagement
    • Student survey
    • Teacher survey
  • Math and Science engagement
    • Student survey
    • Teacher survey
    • Classroom observation
• $N = 4,500$ students and $200$ teachers from seven urban and suburban school districts
  • $5^{th}$, $6^{th}$, $7^{th}$, $8^{th}$, $9^{th}$, $10^{th}$, $11^{th}$, and $12^{th}$ graders
• Data collected during 2013-2014 school year
Engagement

- Cognitive
- Behavioral
- Emotional
- Social
Engagement

Cognitive
(Thoughts): Self regulated learning; Level of investment/effort for understanding complex ideas

Behavioral
(Actions): Participation, attention, positive conduct; absence of disruptive behavior

Emotional
(Feelings): Positive and negative reactions to teachers, classmates, academics, or school

Social
(Interactions): Quality of interactions with peers and adults; willingness to invest in relationships while learning.
Model II: Research-Driven
How to Praise Students?
The Role of Teacher Praise

• Teacher praise may be an important motivator for adolescents’ sustained engagement in math. (Kamins & Dweck, 1999; Mueller & Dweck, 1998)

• Ability Praise
  • “You’re so smart!”

• Effort praise
  • “You worked so hard!”

• Strategy praise
  • “You found a good way to solve the problems!”
…But the Task May Matter, Too

- Task difficulty → Adequate challenge
- Task performance → Mastery experience
- Task difficulty and performance may predict increases in engagement (Graham, 1991; Weiner, 1985)
Study Questions

• How does teachers’ praise predict students’ engagement in math class?

• How do task characteristics—task performance and task difficulty—predict engagement?

• Do these associations differ by students’ relationship quality with their teacher?
Study Sample

- $N = 190$ eighth grade adolescents
- Data across the 2017-2018 school year
- Students completed 15-day daily diaries in math class
Students’ Report of Daily Math Engagement over 15 Days

Behavioral   Emotional   Cognitive
Students’ Report of Daily Math Engagement over 15 Days
Students’ Report of Daily Math Engagement over 15 Days

- Behavioral
- Emotional
- Cognitive
## Predictors of Math Engagement: Same Day

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Timely feedback is important and can have immediate pay-offs for engagement.
  • Strategy and ability praise can help students feel good in the moment.
  • Effort praise may boost deeper-level learning.
Mastery experiences are the most important predictor of daily engagement.
Adequate challenge may have immediate effect on cognitive engagement.
• **Relationship Quality with Teacher**
  - Ability praise, effort praise, and strategy praise each predicted more same-day engagement (behavioral, cognitive, and emotional, respectively) among students with higher (but not lower) relationship quality.

• **Establishing strong teacher-student relationships may help make praise more effective.**
Model III: Practice-Driven
School Discipline Practice
Effective school discipline is a challenge across the nation.

Adolescents are prone to engaging in socially rewarding and risky behavior.

Albert, Chein, & Steinberg (2013); Shulman, Harden, Chein, & Steinberg (2016); Steinberg et al. (2017)
• **Zero-tolerance approach**: punish minor misbehavior to deter more serious behavior *(American Psychological Association Zero Tolerance Task Force, 2008)*
  • For example, infraction for minor misconduct

• Adolescents may view punishment for minor misbehavior as overcontrolling, and in turn, engage in *more* serious defiant behavior to re-establish autonomy *(Brehm, 1966; Gregory & Ripski, 2008; Van Petegem, Soenens, Vansteenkiste, & Beyers, 2015)*

• Defiant behavior is strongly linked to school suspension *(see Okonofua et al. 2016)*
Racial disparities in school discipline also continue to be an issue that plagues the U.S.

Racial Disparities in School Discipline

Black students are 3-4 times more likely than their white peers to be expelled or face multiple suspensions from school.

Risk of Being Expelled

Risk of Facing Multiple Suspensions

Source: U.S. Department of Education, Office for Civil Rights, Civil Rights Data Collection, 2009-10

American Institutes for Research | www.air.org
Study Questions

• Does minor infraction lead to reduced defiant behavior?

• Are there racial differences in the minor infraction or defiant behavior?
• \( N = 729 \) adolescents from an urban public school district
  • 6\textsuperscript{th}, 8\textsuperscript{th}, and 10\textsuperscript{th} graders
• Data collected during 2016-2017 school year
<table>
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<tr>
<th>Minor Infractions</th>
<th>Defiant Behavior</th>
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<td>• Infractions for more “prototypical” adolescent misbehavior</td>
<td>• Intentional defiance of school personnel or school rules</td>
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<td>• Non-violent</td>
<td>• Examples:</td>
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<tr>
<td>• Not necessarily indicative of school disengagement</td>
<td>• Defiance/Disrespect/Insubordination</td>
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<tr>
<td>• Examples:</td>
<td>• Vandalism</td>
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  • Dress code  
  • Cell phone  
  • Horseplay
• **53.4%** of students received at least one minor infraction

• **31.6%** of students received at least one defiant behavior infraction

• **28.3%** of students were suspended at least once

• Race was correlated with suspensions ($r = .13$), such that African American students received more suspensions than their White peers
Research Aim 1: Identify a beginning to the school discipline cycle

- Minor Infractions
- Defiant Behavior
- Suspensions
Research Aim 1: Identify a beginning to the school discipline cycle

Minor Infractions \( \rightarrow \) Defiant Behavior \( \rightarrow \) Suspensions

\[ OR = 1.76, \quad p = .001 \]
• When students received a minor infraction, they were 1.75 times more likely to receive a defiant infraction the next trimester ($p = .001$).

• Students with defiant infractions received more suspensions across the school year ($\beta = .76, p < .001$).
Research Aim 2: Identify a potential starting point of racial disparities in the school discipline cycle

- Minor Infractions
  - OR = 1.76, $p = .001$

- Defiant Behavior
  - $\beta = .76, p < .001$

- Suspensions
African American students received more minor infractions than White students ($\beta = .16$, $p = .001$), controlling for behavior and academic factors.

Notably, there were no racial differences in defiant behavior infractions.
• Discipline for minor misconduct may have several negative consequences:
  • Result in worse behavior
  • Racial disparities in school discipline

• Yet, it is still critical to maintain classroom order and safety.
  • May need to help teachers use developmentally appropriate behavior management practices that balance adolescent autonomy and structure in the classroom
THANK YOU!!
Thank you to...

Multiple School Districts
Students, Parents, Teachers, Administration

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