The Positive School Culture Inventory™ (PSCI™):

Purpose, Rationale, and Development

BY TOM HIERCK AND KENT PETERSON

Executive Summary

Educators who incorporate positive behavior reinforcement, also called Positive Behavioral Interventions and Supports (PBIS), often have questions, particularly in terms of monitoring positive behaviors:

1. Is there an objective methodology of determining when a school has achieved, or is close to achieving, success?

2. Are all positive behaviors of equal value or are some more conducive to achieving those goals?

Fredrickson's research (2013) supports the concept that a ratio of three positive emotions for every negative emotion typically serves as the tipping point between an individual flourishing or languishing. A three-to-one (3:1) ratio of positive to negative behaviors translates into 75 percent positive behaviors. Given that some emotional experiences will be beyond educators' control (e.g. events occurring outside of school), an actionable range of 65 to 85 percent positive behaviors is advisable.

An analysis of data of more than 152,000,000 observable student behavior instances collected by educators in 645 schools over seven years enabled researchers to identify the most essential behaviors in creating a positive school climate, producing the Positive School Culture Inventory™ (PSCI™). Examining the relationship between the PSCI™ scores and their positivity ratios researchers discovered schools that logged greater than 20 percent of behaviors from the PSCI™ had a positivity ratio between 67 percent and 90 percent. In contrast, schools logging less than 10 percent of the student behaviors from the PSCI™ had a wide range of positivity scores and much lower positivity ratios overall.

Introduction

Research has shown the efficacy of positive behavior reinforcement, also called Positive Behavioral Interventions and Supports (PBIS), in creating positive school climates — safe, supportive learning environments that cultivate student success.

However, educators often have questions regarding what behaviors they should be tracking and reinforcing.

Proponents of PBIS cite disciplinary referrals as the predominate metric tracked to demonstrate success, and report that the challenge preventing them from tracking more positive metrics is that there is little research around which positive behaviors they should be focused on. Given how much teachers have on their plates, is all positive student behavior worthy of teacher reinforcement and data collection, or are some behaviors more conducive to achieving those goals? Is there an objective methodology of determining when a school has achieved, or is close to achieving, success?

This paper discusses the reasons for focusing on reinforcing positive behaviors. It also explains how to objectively determine success in achieving a positive school climate via measuring the proportion of positive to negative behaviors (the positivity ratio). In addition, it shares an inventory (PSCI™) of the positive behaviors that best indicate progress toward the targeted positivity ratio.

It is important to note that this information is intended to provide a general direction for positive climate and culture initiatives, and is not meant to be either prescriptive or to define a universal plan for all classrooms and/or schools.

Background:
Why Increase Positivity in Schools?

Research has shown that in order to ensure students' success and resilience, it is essential to develop a positive school climate.

According to the National School Climate Center, a positive climate is one in which people feel socially, emotionally and physically safe, engaged and respected, and are working together toward common and meaningful goals. Such an environment should be cultivated in the overall school, individual classrooms, and among the staff.

The benefits of emotionally positive environments are not unique to schools. Numerous conceptual models point to the impact of positive psychological actions on a variety of individual and group outcomes, including greater productivity at work (Dutton, 2006), positive engagement in daily activity (Csikszentmihalyi, 1990), zest, gratitude, love, and well being (Park, Peterson, & Seligman, 2004; Holloway, 2012), as well as psychological resilience and the development of positive social bonds (Fredrickson, 2003, 2009; Gottman and Levenson, 1992).

Research has shown that positive school climate is linked to a decrease in chronic absenteeism (National Collaborative on Education & Health, 2015). Additionally, Kwong & Ryan Davis (2015) note that school climate affects an abundance of areas: teacher commitment, motivation to learn, student identity development, student dropout rates, sense of school community, school satisfaction, school violence, academic achievement, and higher scores on standardized tests.

Additionally, the National School Climate Council states, "Empirical research has ... shown that when school members feel safe, valued, cared for, engaged and respected, learning measurably increases, and staff satisfaction and retention are enhanced." (n.d., p. 2).

Likewise, a 2005 study of students at risk found that "students placed with cold or controlling teachers struggled academically, regardless of whether their teachers followed pedagogic guidelines for good instruction. However, if those students had a warm and responsive teacher, they flourished and learned as well as others." (Hierck, 2017, p. 11)

> **The National Scientific Council on the Developing Child affirms the value of positive adult-child relationships in the development of resilience:**
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> *[T]he single most common finding is that children who end up doing well have had at least one stable and committed relationship with a supportive parent, caregiver, or other adult. These relationships provide the personalized responsiveness, scaffolding, and protection that buffer children from developmental disruption. They also build key capacities — such as the ability to plan, monitor and regulate behavior, and adapt to changing circumstances — that enable children to respond to adversity and to thrive. (2015, p.1)*

For children that lack a supportive adult outside of the school environment, teachers may serve as a resource for that needed support.

Creating a Positive Climate

Positive climates arise from the practices and rituals implemented and encouraged within a school. Students learn appropriate behavior in the same way they learn how to read — through instruction, practice, feedback, and encouragement. Thus, after identifying and establishing common, consistent behavior expectations school-wide, educators should acknowledge the desired behaviors in order to reinforce the teaching of the new behaviors, increase the likelihood of the desired behaviors becoming habitual, and harness the influence of students who are showing the expected behaviors to encourage those who are not.

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An extensive research base demonstrates the influence of positive behavior reinforcement, including teachers' positive feedback and positive interactions in classroom and school relationships, on reducing antisocial behavior and increasing academic engagement. Rodrigues and Sprick (n.d.) provide an excellent summary of this research.

In brief, the use of positive behavior management practices has been found in multiple studies to be related to the following outcomes:

- Student academic engagement
- Decreased disruptive behavior
- Increase in the intrinsic motivation of students
- Increased math and reading achievement
- Development of self-management skills
- Increased positive verbal interactions

- Decreased negative verbal interactions
- Decreased transition time
- Increased peer social acceptance
- Decreased referral rates
- Happier, more resilient students

One of the questions educators face is how to objectively determine when a school's efforts have been successful in creating a positive climate.

While the definition of school climate primarily focuses on emotional experience (which would be difficult to measure on a day-to-day basis), educators are able to track the occurrence of behaviors that have been established as contributing to and confirming a positive climate. Additionally, comparing the rate of occurrence of those positive behaviors to that of undesired actions will provide a picture of the state of the school climate.

The Positivity Ratio

Fredrickson's research (2013) supports the concept that a ratio of three-to-one (3:1), that is, three positive emotions for every negative emotion, typically serves as the tipping point at which an individual will flourish (including being resilient to hard times) rather than languish. Applying this ratio to the monitoring of behaviors that generate or demonstrate the existence of a positive climate will enable educators to monitor students' emotional experience. A 3:1 ratio of positive to negative behavior translates into 75 percent positive behavior.

It is worth noting that the 3:1 ratio should not be taken as an absolute, particularly for monitoring an entire school. While educators will strive to make school a positive experience for all students, circumstances beyond the school's control may result in some students exhibiting positivity ratios below the 3:1 ratio, if only temporarily.

Therefore, educators should aim for an actionable range around the stated target of 75 percent positive behavior. Ten percentile points below and above the tipping point creates a reasonable actionable target range of 65-85 percent.

Discovering the Most Essential Behaviors in the Cultivation of Positive School Climates

An analysis of data from 645 schools that had made a practice of digitally logging student behavior confirmed that while all positive behaviors are desirable, some behaviors are more essential to successfully establishing the targeted positivity ratio than others.

Over a **seven-year period**, more than **152,000,000 behavior instances** were collected from teachers at those 645 schools. Researchers did not explain to schools what they should choose as behaviors; all behavior instances were selected by the schools. Data scientists sought to identify statistical patterns of relationships between certain behaviors and positivity scores in classrooms (student identification was carefully protected). These became the basis for the initial statistical analysis of the behavior categories.

Through cluster analysis of that data set, a core set of positive behavior descriptions or categories was identified. That initial inventory was reviewed by school climate and culture thought leaders and researchers who examined the underlying pattern and meaning of the list of descriptors. An initial short list of central, positive student behavior descriptors that were indicative of success (defined as a school's positivity ratio being in the target 65-85 percent range) was identified.

645
SCHOOLS

7
YEARS

152 Million
BEHAVIORS COLLECTED

That subset of important behaviors was further reviewed and analyzed to filter down to the most important behaviors, producing the Positive School Culture Inventory™ (PSCI™) in the table below.

Positive School Culture Inventory™ (PSCI™)

- **SHOWING PRIDE IN SCHOOL**
- **COLLABORATION**
- **KINDNESS**
- **TAKES PRIDE IN ONE'S WORK**
- **LEADERSHIP**
- **HELPS OTHERS**
- **USES TIME WISELY**
- **BEING PREPARED**
- **LOVE OF LEARNING**
- **MAKES GOOD CHOICES**
- **ACTIVE LISTENING / ENGAGED**

- **COOPERATION**
- **USES APPROPRIATE COMMUNICATION**
- **CARING**
- **SELF RELIANT**
- **PERSEVERANCE / RESILIENCE**
- **MAKING AN INSIGHTFUL COMMENT**
- **ORGANIZATION**
- **ABOVE AND BEYOND**

Note: A behavior may have more than one name or description. For example one school may describe a behavior as "Being Helpful" while another uses the descriptor "Helps Classmates." Similarly, one school may encourage "Persistence" while another encourages "Resilience."

The chart below plots the percent of a school's logged behaviors that are in the PSCI versus its positivity ratio.

Percentage of Behaviors Logged in the PSCI vs. the Positivity Ratio
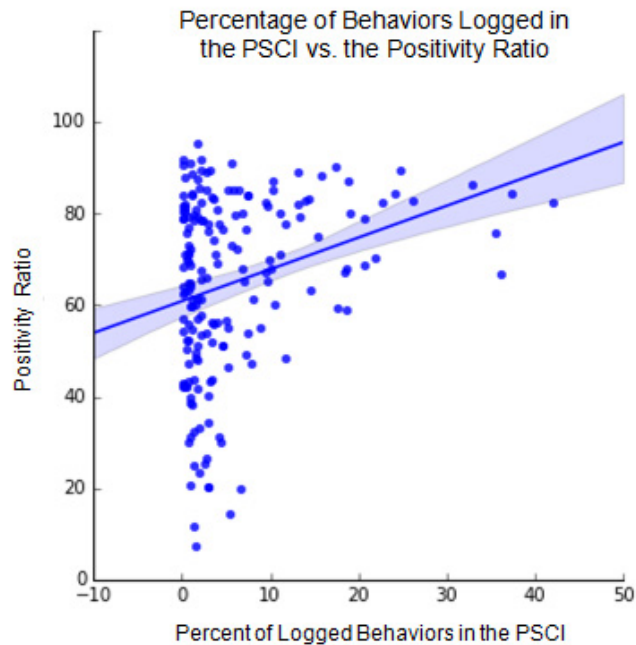
Notably, the schools that logged greater than 20 percent of the behaviors from the PSCI had a positivity ratio between 67 percent and 90 percent. This demonstrates a correlation between schools that use the behaviors on the inventory and a positivity ratio in the target range of 65-85 percent. Further, of all the behaviors logged, successful schools logged almost 40 percent more of the behaviors that were determined to be the most important for a positive school culture and, thus, part of the PSCI™.

In contrast, schools that logged less than 10 percent of the behaviors from the PSCI™ had a wide range of positivity scores and much lower positivity ratios overall.

Conclusion

The data used to perform the behavior analysis was obtained from schools using the Kickboard school culture system.

Ideally, readers now have a deeper understanding of the importance of positive school climate efforts, the methodology for objectively evaluating the progress and success of such efforts, and the behaviors that have the greatest impact in helping schools move toward the target positivity range.

Additional research is planned to determine further relationships between the behaviors in the PSCI™ and important classroom and school culture outcomes. This subsequent research should continue to deepen the understanding of the importance of positive behavior patterns and student-teacher interactions in schools and classrooms, and the broader usefulness of the PSCI™.

Positive School Culture Inventory™ is a service mark of Kickboard Corporation.

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Hierck has been an educator since 1983 in a career that has spanned all grade levels and many roles in public education. His belief that "every student is a success story waiting to be told" has led him to work with teachers and administrators to create positive school cultures and build effective relationships that facilitate learning for all students. Hierck is the author of several books, including Seven Keys to a Positive Learning Environment in Your Classroom.

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