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Abstract

The three-tiered School-Wide Positive Behavioral Interventions and Supports (SWPBIS) model is now being implemented in more than 13,000 schools in the United States (Horner, Sugai, & Anderson, 2010). One core feature of Tier One of the SWPBIS model is the identification of social expectations and behavior indicators across all school settings. This study examined the types and frequency of schools' social expectations and behavioral indicators as they were written into their behavior matrices. Participants from 155 schools located in 12 regionally representative states provided a sample of their behavioral matrix. Analyses of the matrices showed that three social expectations (respect, responsibility, and safety) occurred in more than 60% of behavior matrices. In addition, behavior indicators (e.g., walk to the right, quiet voices, hands to self) were identified for the four most frequent social expectations. Regional and state comparisons of social expectation frequency indicate homogeneity of categories across the country. Based on the findings, implications and suggestions for future research and practice are discussed.

Keywords

positive behavioral interventions and supports, social expectations

Providing a safe, positive school climate that engages students in their academic program and supports their social and behavioral development has been an enduring goal of educators, parents, and policy makers (Barnoski, 2001; Shelton, Owens, & Song, 2009). This goal, along with legislative mandates, has pressured schools to identify evidence-based practices that alleviate school violence and bullying, support students with challenging behaviors and has focused policy changes on the improvement of school climate (Sugai & Horner, 2002). Two reauthorizations of the Individuals with Disabilities Education Act (IDEA; U.S. Department of Education, 1997, 2004) and the No Child Left Behind Act (NCLB; U.S. Department of Education, 2001) have recommended the use of Positive Behavioral Interventions and Supports (PBIS) to strengthen K-12 schools. The 2004 reauthorization of IDEA emphasized early intervention services to meet the behavioral needs of students at risk for emotional and behavioral disorders (EBD) and reduce referrals to special education services. NCLB called for services that improve school engagement and reduce dropout rates.

Incorporating policy efforts and evidence-based practices from the fields of education and mental health, the School-Wide Positive Behavioral Interventions and Supports

(SWPBIS) model has emerged as a prevention and early intervention framework for addressing students' challenging behaviors. The SWPBIS model consists of three tiers of support. Tier One provides universal supports, which include establishing, teaching, and reinforcing school-wide expectations for desired social behavior for all students. Tier One supports at each school are typically developed and monitored by a school leadership team composed of 6 to 10 representative staff. Tier Two provides group-based, targeted services to students who are unresponsive to Tier One. For students unresponsive to Tier Two, Tier Three supports include individualized services where the function of behavior is assessed and subsequent behavior intervention plans and wraparound services are designed (Horner, Sugai, Todd, & Lewis-Palmer, 2005; Sugai & Horner, 2002).

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The SWPBIS model focuses on four elements—practices, systems, data, and outcomes (Sugai & Horner, 2002)—that support each tier of implementation.

The SWPBIS model discussed in this research is based upon the School-Wide Positive Behavior Support Implementers' Blueprint (Sugai et al., 2010) promoted by the National Technical Assistance Center on PBIS co-directed by Rob Horner and George Sugai, and it should be noted that other models do exist (Knoff, 2007; Sprick, 2009). The SWPBIS model has produced many positive outcomes, including decreases in problem behavior (Luiselli, Putnam, & Sunderland, 2002; Netzel & Eber, 2003; Taylor-Greene & Kartub, 2000) and improved social culture measured by student and staff assessments of school climate and satisfaction (Carr et al., 2002; Lewis, Powers, Kelk, & Newcomer, 2002). Increased satisfaction and decreased problem behavior allows teachers to focus on academic instruction, and improve students' academic performance (Nelson, Martella, & Marchand-Martella, 2002).

To put SWPBIS into practice, a professional development approach has been emphasized that gives authority to a school leadership team to oversee implementation of SWPBIS (Lewis & Sugai, 1999). The team starts the implementation process by receiving training from a SWPBIS facilitator on Tier One. In Tier One, schools establish three to five broad school-wide expectations, such as: be safe, be respectful, and be cooperative. This step is found consistently in the literature on SWPBIS (Horner et al., 2005; Horner et al., 2009; Horner & Sugai, 2006; Sugai & Horner, 2002) and in the SWPBIS implementers' blueprint designed by the Office of Special Education Programs National Technical Center on Positive Behavioral Interventions & Supports (2010). The implementers' blueprint serves as a guide to improve the fidelity of SWPBIS implementation. School-wide expectations are intended to reflect the values of the school's or community's social culture (George, Kincaid, & Pollard-Sage, 2008). Horner et al. (2004) stated that the expectations are "the big concepts that guide the behavioral curriculum and social standards of the school" (p. 11). Expectations are positively stated and provide a common language for staff to address student behavior (Simonsen, Fairbanks, Briesch, Myers, & Sugai, 2008). Expectations are then placed onto a behavior matrix (see Figure 1) and school staff identifies behavioral indicators for each expectation across school settings (e.g., cafeteria, library, classroom). As seen in Figure 1, behavioral indicators are desired behaviors for each setting that exemplify the expectations. SWPBIS interventions often use the school-wide expectations as targeted goals for students receiving Tier 2 services. For example, social expectations are typically used as goals on daily progress report cards (DPR; Crone, Horner & Hawken, 2004; Cheney, Flower & Templeton, 2008; Todd, Campbell, Meyer, & Horner, 2008) in Tier 2 interventions.

Despite the large number of schools engaging in the practice of SWPBIS, the researchers found no published research that addressed the array of social expectations and behavioral indicators school staff are identifying. Such research could inform leadership teams as they make decisions about establishing social expectations and corresponding behavioral indicators. If school culture and community are truly being considered, one would expect to see that evident in behavioral expectations and indicators. This research could also inform researchers and facilitators about how SWPBIS is being disseminated to schools through trainings. Thus, the purpose of this study was to review school-wide social expectations and behavioral indicators used by a nationally representative sample of schools identified by Statewide Coordinators of PBIS associated with the National Technical Assistance Center on PBIS.

Research Questions

1. What social expectations are identified in schools implementing SWPBIS across four geographic regions of the country? What if any differences exist between regions?
2. What classroom behavioral indicators define each social expectation based on the matrices in this sample? What if any differences exist between regions?
3. To what extent are the most frequently occurring classroom behavioral indicators evident in research-based behavioral assessments?

Method

Participants

State coordinators. Twelve state coordinators (Oregon, Utah, Washington, Illinois, Missouri, Kentucky, Connecticut, Massachusetts, New Hampshire, Maryland, South Carolina, and North Carolina) from the PBIS National Technical Assistance Network participated in this study. The study sought coordinators from three states in each of the four major regions of the country, as identified by the 2000 U.S. Census: West, Midwest, South, and Northeast (U.S. Census Bureau, 2000). Coordinators who participated in the study assisted the project staff by recruiting schools in their state. Each state coordinator had at least 15 years of experience in the field of education and a minimum of 5 years of experience as a statewide leader of SWPBIS.

Schools. Schools were identified by the state coordinator as those that had received SWPBIS training and were, at a minimum, implementing Tier One. A contact at each school was identified to provide a sample of their schools' behavioral matrix. Behavior matrices were collected from 216 elementary schools (serving students from K-6).

	Be Respectful	Be Responsible	Be Cooperative	Be Safe
Hallways And Common Area	Allow others to pass Voice Level 0	Keep hands and feet to self Keep personal belongings off floor	Walk single file on the right side of the hall Walk away from the wall Last student in line will close the door	Walking Feet Stay to the Right Use hand rails on Stairs
Cafeteria	Voice Level 1 in serving line Voice Level 2 at tables Use polite words Use good manners	Raise your hand for assistance Keep hands, feet, and objects to self Clean personal space at table before leaving	Walk to your table Go directly to next available seat at assigned table	Follow instructions from cafeteria monitors Use Walking Feet
Playground	Voice Level 0 when lining up Voice Level 4 on playground Settle conflicts peacefully	Keep hands and feet to self Use equipment properly Remain in view of the teacher at all times	Use all equipment appropriately Take turns and play fairly Line up immediately when signaled	One on the Slide Rocks stay on the ground 3" high limit for jumping from big toy
Classroom	Observe appropriate voice levels Work quietly and be a good listener Use kind words Treat others as you want to be treated Understand and accept individual differences	Arrive on time Use classroom equipment properly Keep hands, feet, and objects to self Take charge of yourself and your belongings Accept consequences of your behavior	Follow classroom routines and rules Help your classmates Share materials Ask before using materials of others	Follow instructions from the teacher Four chair legs on the ground Safety gear on during science labs

Figure 1. Sample behavior matrix.

Our primary focus of this study was classroom expectations and subsequent behavioral indicators. By limiting the data collection and analyses to the classroom, a clearer and more concise comparison could be made of the data. Of the participating schools, 155 used a classroom setting on their matrix and were included in the data analysis. Matrices by region (listed as: with classroom setting/total) were: West (26/58), Midwest (31/43), South (57/67), and Northeast (41/48).

There were 58 urban schools, 32 suburban schools, and 65 rural schools represented in this study. School enrollment ranged from 88 to 973 students (mean 446); 46.13% of all students were receiving free or reduced-price meals. Table 1 contains student demographic information.

Procedure

Data collection. Researchers aimed for a purposeful sample of 30 schools per state that represented a balance of

urban (city population of 50,000 or greater), suburban (suburb population 10,000 to 49,999), and rural (town population of less than 10,000) schools (ideally 15, 10, and 5 schools, respectively, weighted to approximate the geographic distribution of students in the USA) as well as a diverse student population (i.e., SES and racial/ethnic diversity).

Each participating school received an explanation of the procedures and goals of the study and was asked to provide a copy of their school-wide behavior matrix. School demographic data were gathered from public records available online (<http://nces.ed.gov/ccd>). The research team also gathered data on population size of the city or town where each school's district office was located. Schools were informed that identifying information would be kept confidential.

Behavior matrices. Schools implementing SWPBIS create matrices (see Figure 1) as a tool to connect school-wide social expectations with corresponding behavior indicators across the various school settings. Social expectations are broad social values such as responsibility, respect, or safety.

Table 1. Demographic Information

	District population (N)	School size (N)	Percentage race/ethnicity					American Indian/ Alaskan (%)	Free/reduced-price lunch(%)
			White (%)	Black (%)	Hispanic (%)	Asian (%)			
West									
Washington	112632	448	53.70	10.25	16.98	13.71	3.85	48.33	
Utah	43565	528	61.33	1.40	15.86	3.02	18.05	47.36	
Oregon	190437	492	60.29	5.94	23.73	3.95	0.96	70.48	
Midwest									
Illinois	73996	493	60.39	10.28	12.49	12.28	0.15	24.60	
Kentucky	5208	454	91.64	5.68	1.13	0.52	0.08	52.91	
Missouri	126178	395	71.18	26.33	1.79	0.44	0.26	50.13	
Northeast									
Connecticut	44168	430	61.63	14.92	19.38	3.79	0.28	40.54	
New Hampshire	10135	334	93.68	1.74	2.72	1.59	0.26	21.31	
Massachusetts	97477	460	55.3	7.85	28.44	5.29	0.48	49.96	
South									
North Carolina	23590	436	52.16	33.29	8.1	0.77	0.31	58.71	
South Carolina	50391	526	43.34	42.42	9.57	0.77	0.34	66.63	
Maryland	100097	493	53.77	23.82	16.13	5.84	0.66	45.62	

Behavioral indicators define the specific behaviors that exemplify each social expectation and may vary by school setting. For example, the social expectation of safety might be defined as “walk” and “hands to self” in classrooms and as “hands on rail in stairwell” in hallways.

Data analysis. This study analyzed matrices that contained a classroom setting or listed a common area (e.g., all settings), which appeared to apply to the classroom. Matrices that met criteria were entered into a word document and given an identification number in place of the school name to protect school confidentiality. School demographic information was entered into Excel and coded with the correlating identification number.

Data Analysis was done using a coding process (Miles & Huberman, 1994; Neuendorf, 2002) in which the coding categories provided a structure for analyzing the data. This process helps researchers to avoid the data overload common with qualitative data (Miles & Huberman, 1994). Following Kane’s (2006) suggestions for validation in qualitative assessment, the researchers initiated the coding categories using known conceptual frameworks and refined the categories based on emerging data. The extensive research and professional training experience in the area of school-wide positive behavioral supports held by the primary investigators, served as the teams’ initial conceptual framework for interpreting the information contained in the behavior matrices. The two research assistants then used the first 20 matrices that the research team received to identify common categories for social expectations and classroom behavior indicators. These matrices did not represent a random sample; rather they were a pragmatic starting place for

developing a coding process so that when subsequent matrices were received they could be analyzed in a systematic and timely manner. The research assistants agreed on the title and definition of each category and recorded them in a coding manual. These categories were reviewed by the entire research team and verified by the primary investigator. Throughout the duration of this study the coding manual was updated and refined in “an iterative interpretive” (Kane, 2006, p. 48) process using data that emerged from the matrices. As such, the twenty initial matrices did not have disproportionate influence on or rigidly define the categories used for analysis. In instances where the research assistants did not reach agreement, one of the primary investigators was consulted and served as the tiebreaker. Individual social expectations were coded to the most appropriate category; individual behavior indicators were coded into as many categories as were relevant.

Content analysis was used to analyze the categories (Neuman, 1997). The software package NViv08 was used in the analysis of data, which concerned the frequency and content of social expectations and associated classroom behavioral indicators. NViv08 allows the user to develop coding nodes to structure data analysis. Nodes were developed to reflect the coding manual and the software calculated the frequency of each social expectation and behavior indicator node, which allowed each behavior matrix to be coded in multiple categories, as needed. The term *matrix frequency* refers to the number of individual behavior matrices that listed a specific social expectation. Expectation frequency refers to the number of social expectations that were coded under the same social expectation category. For

Table 2. Top Ten Social Expectations

Expectation	Matrix frequency (%)	Expectation frequency
Respect	134 (88.7)	171
Responsible	109 (72.2)	109
Safety	97 (64.2)	97
Ready to learn	40 (26.5)	42
Care	15 (9.9)	15
Work together	14 (9.3)	14
Do your best	12 (7.9)	13
Attitude	11 (7.3)	11
Kind	10 (6.6)	10
Self-control	6 (4.0)	6

example, if one matrix listed the social expectations respect self and respect others, the category respect was counted once for matrix frequency and twice for expectation frequency. Descriptive data of the frequency and content of social expectations and behavior indicators are reported.

The research assistants entered the first 20 matrices into NViv08, for training purposes. The matrices of a second set of 20 schools were independently coded and used for assessing the initial intercoder reliability. Under the supervision of the primary investigator, the research team checked the intercoder reliability by calculating the percentage of agreement between coders. Intercoder reliability for social expectations was initially 97.2% and, overall, 97.6%. The initial intercoder reliability for behavior indicators was 81.7% and overall, 92.8 %.

Results

Social Expectations

There were a total of 52 discrete social expectations that occurred across all of behavior matrices. Respect is the only social expectation for which the difference between matrix and expectation frequency is noteworthy. Henceforth, the term frequency will refer to matrix frequency. Table 2 identifies the 10 most frequently occurring social expectations. The occurrence of social expectations ranged in frequency from 1 to 134. Respect, responsible, and safety occurred with high frequency (88.7%, 72.2%, and 64.2%, respectively). Ready to learn occurred with moderate frequency (26.5%).

Another 42 social expectations occurred with less frequency. Examples of these social expectations include make good choices, trustworthy, and manners.

Regional comparison. From the four regions, the greatest numbers of matrices were acquired from the South (57), followed by the Northeast (41), the Midwest (31), and the West (26). The South also had the greatest number of discrete social expectations (25), whereas the Northeast had

the fewest number of discrete social expectations (19). The Midwest had 17 discrete social expectations that occurred on only one matrix in the region; this was the greatest number of single entries of any region.

All regions had respect, responsibility, and safety as the most frequent social expectations. The Midwest, the South, and the West had these expectations ranked in the same order as the aggregate (i.e., respect first, etc.). Respect, responsibility, and safety were the only social expectations to occur on more than 45% of the matrices in any region. Ready to learn was the fourth most common social expectation in all of the regions.

Behavior Indicators

Behavior indicators identify how social expectations are defined in the classroom. Given the limited space of this paper, only the behavior indicators of the four most frequent social expectations are reported.

Table 3 identifies the behavior indicators that occurred on 10 or more behavior matrices within each of the four most frequent social expectations. A complete list of behavior indicators for each social expectation can be obtained by contacting the first author. A total of 48 discrete behavior indicators defined the expectation of respect, which was the greatest number of behavior indicators within any social expectation. The social expectations of responsibility, safety, and ready to learn were defined by 44, 21, and 26 discrete behavior indicators, respectfully. The occurrence of discrete indicators (i.e., the number of times a behavior indicator appeared on a matrix within a given social expectation) ranged from 1 (all four social expectations included behavior indicators that appeared on only one matrix) to 73 (for respect), 53 (for responsible), 73 (for safety), and 26 (for ready to learn).

There were 139 total behavior indicators within the four most frequent social expectations across all of the behavior matrices. This reduced to 70 discrete behavior indicators when like indicators were combined across the four most frequent social expectations, an approximately 50% overlap in the usage of behavior indicators across the four most frequent social expectations. Among these 70 behavior indicators, 31 (44.3%) occurred on 10 or more matrices, 18 (25.7%) occurred on between 2 and 9 matrices, and 21 (30.0%) occurred only on 1 matrix. Twenty-nine (41.4%) behavior indicators were found within only one social expectation (e.g., only appearing within respect) and 41 (58.6%) were found on more than one social expectations (e.g., appearing on both respect and responsibility). For each social expectation, only one fifth of the behavior indicators were discrete (range 19.0%–22.9%). In other words, four fifths of behavior indicators within the most frequent social expectations also appeared in at least one other social expectation.

Table 3. Behavior Indicators Occurring 10 or More Times

Expectations/behavior indicators	Matrix frequency (%)
Respect	
Kind words and actions	73 (54.5)
Voice level	56 (41.8)
Listen	55 (41.0)
Treat others and property with respect	53 (39.6)
Follow directions	47 (35.1)
Raise hand	40 (29.9)
Keep neat and clean	23 (17.2)
Hands and feet to self	22 (16.4)
Take turns	21 (15.7)
Do your best	20 (14.9)
Cooperate	17 (12.7)
Manners	15 (11.2)
Help others	14 (10.4)
Allow others to be different	14 (10.4)
Ask permission	11 (8.2)
Stay in assigned area	11 (8.2)
Allow others to learn	10 (7.5)
Be prepared	10 (7.5)
Responsibility	
Follow instructions	53 (48.6)
Be prepared	51 (46.8)
Complete and turn in work	38 (34.9)
Keep organized and clean	36 (33.0)
Stay on task	28 (25.7)
Do your best	28 (25.7)
Take care of equipment and property	25 (22.9)
Accept responsibility for your actions	19 (17.4)
Be on time	15 (13.8)
Safety	
Hands and feet to self	73 (75.3)
Walk	49 (50.5)
Use materials and equipment properly and safely	43 (44.3)
Sit appropriately	29 (29.9)
Follow rules and instructions	22 (22.7)
Personal space	18 (18.6)
Know and follow safety procedures	18 (18.6)
Keep organized and clean	16 (16.5)
Ready to learn	
Have materials prepared	26 (65.0)
Do your best	14 (35.0)
Follow instructions	14 (35.0)
Complete work	12 (30.0)
Be on time	11 (27.5)
Listen	11 (27.5)

Discussion

Results of this research contribute to the growing body of literature surrounding the implementation of SWPBIS. Previous literature and the PBIS blueprint (2004) suggests that schools adopt three to five broad social expectations and identify corresponding behavioral indicators. These social expectations and behavioral indicators should contain a mixture of empirically substantiated and contextual features (Horner et al., 2004; Horner et al., 2009; Horner & Sugai, 2006). Developing social expectations and behavioral indicators that address this goal requires attention to pragmatic factors (e.g., how to run a school with a large or small number of students), idealistic factors (e.g., how can students show peak performance), and cultural factors (e.g., what is culturally relevant and competent behavior for respect).

Results of this study suggest that social expectations and behavior indicators in schools nationally are more alike than different. The consistency of social expectations across matrices both within and between regions was the most prominent finding of this study. This challenges the concept that the social expectations and behavior indicators that schools create contain diverse, locally relevant, or contextually significant content for students. Indeed, it appears that respect and responsibility are almost ubiquitous social expectations regardless of geographic or demographic context.

The authors speculate that this result may be attributed to the influence of training on SWPBIS implementation. It is possible that SWPBIS facilitators are presenting example social expectations, which the trainees are adopting for their school, or that the dialogue between the participants in training generates a confluence of thought. It may also be that these highly occurring social expectations most often address the greatest concerns schools face related to problem behavior and school climate.

The Gallup poll, conducted each year from 1969 to the present, has identified “respect” as a perennial problem facing public schools; specifically, this has been called “lack of respect for teachers and other students” (Elam & Rose, 1995; A. Gallup, 1975, 1985; Rose & Gallup, 2000). The poll has also identified “lack of discipline” as one of the most pressing school issues (Bushaw & McNee, 2009; Elam & Rose, 1990; Gallup, 1970, 1985). Although “responsible,” “safe,” and “ready to learn” have not been empirically documented as essential components of running a school, one would be hard pressed to find an educator (or community member) who disputed the relevance and importance of each of these three social expectations. Although not pointing exclusively to “responsible,” “safe,” or “ready to learn,” the issue of student discipline has strong implications for all three social expectations, indicating high social validity for these categories.

The content of social expectations and the behavioral indicators in this study also appears to emphasize student compliance. The data revealed a tendency to expect students to be respectful of the authority of their teachers, be prepared for classroom activities, and behave in a safe and calm manner. There were a few examples of “unconventional” additions to the behavior matrices. One behavior matrix listed “community” as a social expectation, which was defined by behaviors such as celebrating differences, showing school spirit, and getting involved.

The literature surrounding SWPBIS continues to stress the need to establish clearly defined and consistently taught behavioral expectations (Lohrmann, Forman, Martin, & Palmieri, 2008; Muscott, Mann, & LeBrun, 2008). Results in this study suggest there is a need for schools to carefully consider and clearly define their social expectations and carefully consider the corresponding behavioral indicators.

To support the above implication, some Tier Two PBIS interventions rate students daily on meeting the school-wide expectations found in Tier One. A previous study by Lynass, Cheney, Mielenz, McGuire, and Iwaszuk (2010) indicates that teachers had trouble accurately rating students on their ability to meet the expectations of respect and responsibility. The authors hypothesized that these social expectations are somewhat ambiguous to teachers, overlap in their meaning, and are difficult for teachers to clearly define and distinguish in the classroom.

Another consideration surrounds the issue of cultural competence in SWPBIS. This study found that social expectations were quite homogenous, which leads us to question if cultural competence is truly being addressed. Cartledge and Kourea (2008) state, “Educators can make PBIS more culturally relevant by appealing to the students’ heritage or cultural background” (p. 364). One example of this is comes from a school that the first author has worked with which is an Orthodox Jewish day school. Their SWPBIS program, called “Project Shalom,” incorporates culturally relevant social expectations and behavioral indicators reflective of the school’s mission of “K’vod HaTalmid,” which means student dignity. Schools bring cultural relevance into SWPBIS through consideration of the students’ cultural identity. To facilitate this process, schools should involve culturally diverse stakeholders who reflect the students’ various cultural backgrounds.

This study highlights the need for further study across several areas. First, further investigation of how schools choose social expectations and what stakeholders are involved in this process is warranted. Second, research is needed that investigates the ways in which SWPBIS models are being trained across the country, with an emphasis on whether models are tailored to meet the specific cultural needs of the school or if the characteristics are more closely aligned with a specific training approach. Third, further investigation is warranted to ascertain if SWPBIS programs

are made more culturally relevant through other aspects of the program, such as the teaching of the expectations. Fourth, this study could be expanded on by examining the frequency of behaviors found in individual settings and if the behavioral indicators on matrices address those problem behaviors.

There are several limitations in this study. First, the sample of behavior matrices was, though diverse and regionally representative of the country, a sample of convenience. Future studies could improve on this study by sampling a larger selection of behavior matrices from more states. Second, there is always a level of subjectivity in qualitative content analysis. The data coders had sufficient interrater reliability scores, but coding categories were still contingent on professional judgment. Third, all implications for how social expectations and behavior indicators were generated are speculative, since the research team did not collect data regarding the process of SWPBIS implementation in the schools. Finally, the authors realize that these expectations and behavioral indicators may be made more culturally relevant through the process of teaching the students the expectations, and thus acknowledge that some of the cultural relevance may not be captured in this study.

SWPBIS has great potential to create safe and effective learning environments that contribute to increased academic learning. However, if the focus is to create programs that are tailored to fit the unique cultural communities of each school, this study calls that notion into question. If we want students to engage in our schools, then creating environments that are culturally relevant for them seems only logical.

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