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Research Article

Bored with School! Bored with Life? Well-Being Characteristics Associated with a School Boredom Mindset

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Abstract

Students' experiences of boredom at school are receiving increased research attention. Most inquiries to date have focused on how often students experience boredom in classroom situations and in specific subject areas. Despite its frequency, limited research efforts have explored how students' boredom experiences might inform positive education initiatives. This paper examines students' school boredom experiences from a positive education lens through which school mental health professionals can evaluate students' school boredom experiences systematically. We introduce the *School Boredom Mindset* (SBM) concept that identifies a subset of high-risk students expressing unfavorable school attitudes. A preliminary analysis of 2,331 California secondary (Grades 7-12) students' responses on well-being indicators explored the SBM's viability. The findings show that students with the strongest SBM reported substantially lower well-being than their peers. The discussion offers suggestions for future research needed to evaluate the SBM concept's meaning and the value of its contribution to positive education. While this research moves forward, we provide practitioners with resources to better evaluate students' boring feelings at school and consider its meaning within the broader effort of fostering thriving well-being.

Keywords: School Boredom Mindset, bored, positive education, well-being, Social Emotional Health Survey, belonging, school mental health, life satisfaction

"I am so bored" is a typical student expression, one made easily and often (Macklem, 2015). There is no stigma in making this statement, and many students and adults might well say, "Of course, school can be boring." How should school mental health professionals evaluate this expression when they hear it and consider what it might imply for students' academic and psychosocial development? This matter is an even more pressing concern because of students' disengagement and loneliness experienced during the COVID-19 quarantines and distance learning (Loades et al., 2020).

This science-to-practice paper provides school mental health professionals with a research-based approach to consider and evaluate students' boredom experiences. Examples of students' feeling bored at school illustrate common patterns, with particular consideration of students who form strong negative attitudes about school — we label this phenomenon the School Boredom Mindset (SBM). We draw upon the California Student Wellness Study in a preliminary analysis to examine the well-being of a subset of adolescent students whose school experiences lead them to characterize school itself as boring and engaging in learning activities as having little value. The discussion offers suggestions for considering students' boredom experiences within positive education initiatives and suggestions for future research that examines the SBM construct's utility.

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School Boredom

Boredom is a complex, multiple-component emotion described as an adverse psychological experience that includes disengagement and dissatisfaction (Fahlman et al., 2009; Macklem, 2015) and associated helplessness and sadness (Danckert et al., 2018). Although generally regarded as an unpleasant emotion, boredom can also signal the need to become more engaged and inspire people to seek novel sources of stimulation (Eastwood & Gorelik, 2019). Concerning school, boredom can occur in response to course subject matter, task demands, or a pervasive response to school (e.g., Pawlak et al., 2020; Zawodniak et al., 2017). As an attentional process, boredom implies limited interest or motivation (Gerritsen et al., 2014). It may stem from internal sources (i.e., lack of intrinsic motivation), characteristics of the task, or a mismatch between a student's ability and the skill required to complete a task (Hunter & Csikszentmihalyi, 2003).

Students' Boredom Experiences

Studies suggest that boredom is a commonly reported emotional state among secondary school students. In an early positive youth development study, Larson and Richards (1991) found that middle school students (Grades 6-8) reported feeling bored for nearly one-fourth of their waking hours, including school and non-school contexts. Yazzie-Mintz (2010), using data from 103 schools in 27 U.S. states, found that 49% of students reported daily boredom, with 17% bored in every class. Westgate and Wilson (2018) found that two-thirds of students were bored at some time during a typical school day. Martz et al.'s (2016) survey of U.S. students (Grades 8 and 10) identified demographic characteristics associated with frequent boredom. Among the 20% of students reporting frequent boredom, more were female eighth-graders from rural communities whose families experienced low socioeconomic circumstances. These youth were more likely to identify as Black (African American), biracial, or North American Native-Peoples ancestries. A similar recent analysis (including the years 2008 to 2017) by Weybright et al. (2020) of U.S. adolescents in Grades 8, 10, and 12 found high expressed boredom rates — more than 90%. There was an upward trend in boredom across the years, with boredom peaking in Grade 10 for males and decreasing across Grades 8 to 12 for females.

Boredom emerges primarily in situations where students experience low stimulation and lack of intrinsic motivation concurrently. In Pekrun's (2000, 2017) Control Value Model, boredom results from an activity being under-arousing and of low perceived personal value. Westgate and Wilson (2018) describe a Meaning and Attentional Components (MAC) model, in which boredom occurs due to (a) a mismatch between the cognitive demands and the mental resources available and (b) the meaning or value associated with the expected outcome. For some students, aspects of schooling may provide insufficient stimulation and a lack of autonomy, undermining intrinsic motivation. The experience of feeling trapped or constrained by school's unvarying routines may reduce motivation and lead to poor outcomes (Goetz et al., 2014).

How Does School Boredom Affect Students?

Boredom can motivate students to initiate positive coping behavior; however, boredom is linked more often to adverse mental health and academic outcomes. Depression, anxiety, drug or other substance addiction, and decreased quality of life are associated with frequent boredom (Chin et al., 2017). Outcomes associated with boredom and the residual effects of this emotion (either coupled with other negative states of being or not) can deplete joy, meaning, and happiness. Bored students can experience negative emotional states alongside boredom, including depression, anxiety, and apathy (van Hooft & van Hooft, 2018). These oft-affiliated emotions indicate negative mental health issues overall, and boredom as an emotional symptom-state can be challenging to discern from these clinical diagnoses.

Students' academic progress and success is also negatively affected by chronic boredom. Boredom can be considered the opposite of engagement — a lack of stimulation essential to a meaningful life (Goldberg et al., 2011). Academic achievement suffers when lack of engagement or diminished perceived efficacy infects the students' mood. Chronic student boredom has been associated with low school attendance, diminished academic performance, and even physical health problems (Chin et al., 2017).

Boredom and Positive Education: What's the Connection?

One should ask, how does boredom fit into positive education's mission? Positive education acknowledges and values the full range of students' life experiences, trauma levels, and other life challenges. It seeks to help all students thrive even when faced with challenges and bounce back to higher well-being levels, recognizing

and valuing their own and others' values, abilities, and contributions. All emotional experiences offer opportunities for students to explore their meanings and life effects. If another emotion, say sadness, was reported, there would be broad concerns for student well-being. An early positive education definition emphasized integrating traditional education and happiness/well-being practices to address youth depression (Seligman et al., 2009). Similarly, students (Eccles et al., 2020; Twenge et al., 2019) identify boredom as one cause of loneliness (Moore & Schultz, 1983). Loneliness is less prevalent than boredom (Marz et al., 2018), yet, appropriately, national and professional initiatives address the adverse effects of loneliness (e.g., Australian Psychological Society, 2018). Why? These efforts manifest direct concern for students who feel lonely; this is not optimal development — moreover, a collective community benefits when its citizens are engaged and healthy (Allen & Furlong, 2021).

The same principles hold for boredom — student boredom is associated with various health and diminished quality of life indicators. Students experiencing frequent boredom are disengaged from the learning and the schooling process and disconnected from the broader schooling community; they are not thriving. Educators' interest in supporting students experiencing boredom is vital because of humanitarian interests to foster youths' healthy development. Furthermore, when students experience boredom, it is an indicator that the overall school mission is unrealized. Consistent with positive education's mission, embracing boredom as a critical indicator of school climate acknowledges it, communicates caring concern, provides appropriate support and responds to students' needs. This reframing benefits all students regardless of the frequency of experiencing boredom, and it positively affects the whole school.

Conceptualizing Students' School Boredom Experiences for Practitioners

How should school mental health professionals respond when they hear a student say, "This (school activity) is boring"? Consider students in a class receiving a random ping on a digital device, asking them to record their emotional feelings at that moment. Researchers interested in students' emotional experiences during school learning activities have employed this method for more than 30 years. This real-time measurement method is called Experience Sample Monitoring (ESM). ESM prompts students to record their emotions at that moment, such as angry, sad, excited, tired, and bored (Goetz et al., 2014; Nett et al., 2011).

Table 1. Experience sample monitoring illustration of moment-to-moment school boredom experiences

Emotion Monitoring	ESM Ping	Ari	Baylor	Corey	Dylan
Period 2 Social Studies	9:10	Bored	Bored	Bored	Bored
	9:22	Pride	Anxious	Bored	Bored
	9.45	Alert	Tired	Bored	Bored
Additional information		Ari has moderate interest in Social Studies	Baylor likes most social study topics and is generally engaged.	Corey has low interest in Social Studies	Dylan has low interest in Social Studies
Period 3 Biology	10:15	Calm	Calm	Interested	Bored
	10:32	Enjoyment	Pride	Calm	Angry
	10.47	Calm	Interested	Calm	Bored
Additional information		Ari has high interest in Biology	Baylor has moderate interest in Biology	Corey has high interest in Biology and in sciences generally	Dylan has low interest in Biology
Examples of what experienced boredom could mean for students		Ari's boredom could reflect a common, occasional, episodic emotional experience.	Baylor's boredom could be due to a specific topic or teacher presentation style. Poor skill-task demands match.	Corey's boredom could be limited to Social Studies, but is not chronic.	Dylan's boredom could reflect chronic negative emotional experiences and broader disengaged attitudes about school.

To illustrate how researchers have considered boredom in school, visualize a high school tenth-grade social studies class — studying the American Revolution era. Imagine four students sitting in teacher Costello's second-period class: Ari, Baylor, Corey, and Dylan. Table 1 depicts that students received an ESM ping at 9:10; they all indicated that they were bored. During the same social studies class, the students were pinged randomly for a second and third time at 9:22 and 9:45. Corey and Dylan reported experiencing boredom again. In contrast, Ari (pride and alert) and Baylor (anxious and tired) did not report boredom again.

Following these same students into teacher Jeffrey's third-period biology class, one finds that when Ari, Baylor, and Corey receive pings, they report experiencing non-bored emotions. On the other hand, Dylan continued to select boredom twice as the emotion experienced in biology class. All four students reported experiencing being bored in class, but are they all equally prone to its adverse academic and social-emotional outcomes? Could attention to boredom's pattern and persistence provide a frame for how school mental health professionals can better understand these four experience patterns? Ari's, Baylor's, Corey', and Dylan's emotional experiences illustrate how research has examined boredom and its effects on students' academic and psychosocial well-being.

Ari: We All get Bored from Time to Time

Ari's boredom experiences provide an example of students' most common experiences. At any given random moment, many students could occasionally report being bored. A student might say at the moment, "I am bored," but also believe that the emotion will pass, anticipating future engaging activities. For students like Ari, the boredom experience is atypical. ESM studies report boredom can occur in close temporal proximity to other positive feelings (e.g., happy and relaxed) in class settings (Moeller et al., 2020). From a positive education perspective, Ari's boredom could signal an opportunity to explore what was associated with feeling bored. This exploration could foster self-awareness (Bench & Lench, 2013), clarify values, and even spark creativity (Mann & Cadman, 2014); this frame is a way to recast boredom positively because it can provoke motivational introspection (Park et al., 2019).

Baylor: This is a Boring Assignment

Baylor's school boredom experiences are associated with low interest in class-specific learning activities. This boredom is not strongly linked to the general social studies subject matter but could be because the teacher's presentation was not stimulating and had limited novelty. Tam et al. (2020) provide evidence of this boredom dynamic. In their study, for two weeks, high school teachers self-reported their boredom during instruction. Students in each of their classes self-reported their boredom at the end of class session. This study's intriguing finding was that even though students did not accurately detect when their teacher reported being bored, the students' reported boredom was higher and motivation lower on the days that their teacher was bored. Lazarides and Buchholz (2019) examined student perceptions of teaching quality and boredom in mathematics. Teacher support was positively related to class-level enjoyment. Teacher support reduced student-level mathematics anxiety and boredom.

Baylor's type of boredom in the research literature is *state boredom* (Vogel-Walcutt et al., 2012), indicating that it is associated with direct experience in under stimulating contexts. In this circumstance, boredom should be time-limited and not necessarily generalized to other school contexts. In most circumstances, a palliative response first evaluates the learning activity. It explores ways to structure class learning tasks to foster creativity and engagement and discuss the course's relevance and meaning within the scope of students' general interests (Elpidorou, 2018; Moeller et al., 2020).

Krannich et al. (2019) illustrate another reason students like Baylor might feel bored at school — being over or under-challenged. When class assignments and tasks do not sufficiently provoke new learning, or the tasks exceed existing skill sets, a student might experience boredom (Schwartze et al., 2020; Struk et al., 2016). The optimal match between task demands and student skill sets (i.e., the proximal development zone) align neatly within the positive psychology Flow concept (Hunter & Csikszentmihalyi, 2003).

Corey: Specific Subject Matter Disinterest and Irrelevance Leads to Boredom

Corey's boredom does not emanate from the American Revolution topic or a specific class assignment but from questioning social studies' relevance. If one quires and discovers that Corey' boredom is time-limited, "I was bored only in social studies today," this suggests questioning the value of social studies and not biology and perhaps other courses.

At the end of the school day, on the whole, students like Corey would say school was generally engaging, or at least not boring. For some students, this pattern shows that boredom is an emotional experience during domain-specific instruction (Goetz et al., 2006), reflecting underlying motivation issues, such as the course subject matter not meshing with a student's passions. When students like Corey think that social studies classes are not engaging or meaningful, it provokes an obvious question: What will one do about it? This question calls for self-exploration, valuing exercises, as well as academic and vocational counseling. Stuck et al. (2016) observe that boredom decreases when students pursue personal goals and passions.

Dylan: Pervasive Experiences of Boredom at School

What about students who experience boredom more frequently and do not have at least some school courses and activities that interest them? Applying another perspective, researchers have considered boredom as a generalized personal style — individuals experiencing boredom frequently in multiple contexts. Researchers called this *trait boredom* (Weybright et al., 2018), *bored proneness* (Biolcati et al., 2018) or *bored propensity* (Gerritsen et al., 2014), suggesting that some adolescents are at increased risk of experiencing boredom in school and leisure contexts (Wegner & Flisher, 2009). What happens when moment-to-moment boring experiences accumulate into a generalized pattern? That is, the student perceives school and the learning endeavor as tedious, monotonous, and irrelevant. That is, "I am bored right now" morphs into "The school as an institution is boring." This pattern is similar to the reactant group that emerged from Goetz et al.'s (2014) latent class analysis study. These researchers identified five school boredom profile classes based on arousal (calm versus fidgety) and valence (positive versus negative) indicators. Compared with other classes, the reactant boredom group was highest in anger and lowest in valence. This profile could include students like Dylan who experience chronic, pervasive boredom, devalue the schooling process, and form negative attitudes about the entire school enterprise.

School Boredom Mindset

Boredom is among the emotions that students report experiencing most often, and it interconnects school contexts with students' behavioral expectations. It is also an emotion that can assume a judgment quality reflecting a negative attitude. When one is watching a movie and turns to a friend and says, "This is boring," the communication is clear: "I am not enjoying this movie, and let's leave." Such an interaction could be a one-off experience. "That science fiction movie was boring." Carried forward, if the same youth went to other science fiction movies and felt bored, they could form a general attitude about this movie genre, "Science fiction movies are so boring." This attitude carries the explicit message that one does not like science fiction movies and has no interest in seeing one, ever. This perspective is consistent with the way that people talk about boredom; it is common to hear, "This (task, place, event) is so boooring!"; not "I am really bored."

When evaluating moment-to-moment classroom experiences using ESM, tiredness is students' most often experienced feeling, followed by calm and happy, stressed and bored (Moeller et al., 2020). However, ESM data indicate that students report various emotions that do not match their global retrospective emotional experiences. In one study, about 2 in 3 students reported boredom in school every day, and 1 in 6 students report boredom in all classes (Westgate & Wilson, 2018). This finding points to the under-examined topic of how global emotional experiences relate to other well-being indicators. What happens when moment-to-moment boring experiences accumulate into a generalized pattern? When a student associates boredom with school, the learning endeavor may be perceived as tedious, monotonous, and irrelevant. "I am bored right now" morphs into a general negative belief — school as an institution is boring, valueless.

School Boredom Mindset and Student Well-Being

Mindset Theory provides a possible useful frame for understanding how youths make sense of their bored feelings at school. The core elements of Mindset Theory propose that people form all-encompassing attitudes that implicitly organize and shape perceptions and behaviors. A widely appreciated exemplar is Dweck's Growth Mindset (Dweck, 2008; Park et al., 2020), which contrasts individuals' harboring pervasive (implicit) beliefs that intelligence is fundamentally static, unchanging (entity belief), or dynamic, modifiable (incremental belief). Individuals' can ascribe Growth Mindset beliefs to themselves or others. Mindset Theory is applied to other personal experiences. For instance, chronic bullying can lead to general helplessness, with youths assuming helplessness and victimization beliefs that generalize beyond specific attacks (Sharkey et al., 2015). Youths assume an entity belief that they are a victim and they

cannot alter this personal characteristic. In a related study, Yeager et al. (2012) found that a six-session intervention fostering adolescents' personal growth beliefs diminished the association between victimization and depression.

Another relevant aspect of students' boredom experience comes from Pekrun's social-cognitive Control Value Theory of emotions (Pekrun, 2000, 2017). This model considers emotions in academic learning contexts. Students' academic emotions, like boredom, are evaluated along arousal (activating) and valence (value linked with motivation) dimensions. Students can experience boredom when a course activity is under-arousing and has low personal value.

Mindset Theory and Control Value Theory provide school mental health professionals a conceptual frame to reconsider when assessing and caring for students who develop profound (entity) negative beliefs about school experiences that they de-value (valence). Exploring SBM is crucial because youths spend more time in schools than other public socialization contexts with pervasive, life-long implications.

Study Purpose: Preliminary Exploration of School Boredom Mindset

Turning attention to students like Dylan, how often does the SBM pattern occur among high school students? What are the associated adverse effects on student mental health and well-being? From a positive education perspective, when a youth perceives their main social and developmental context, school, as irrelevant, meaningless, and valueless, what else in their life is relevant, has meaning, and value?

Method

Participants

We provide a preliminary exploration of boredom-wellness associations drawing on subset of data from the *California Student Wellness Study* (see www.covitalityucsb.info). Students (*N* = 2,331, Grades 7-12) completed a survey in October 2017 with 54.5% females and 45.5% males. Most of the students identified as White (53.2%), Latinx (27.2%), two or more ethnicities (12.9%), with the remainder identifying with other U.S. ethnic minority groups.

Measures

The current analysis explored if students' school boredom experiences coalesce into an overall negative school attitude. Items from the Multidimensional School Anger Inventory Cognitive Anger subscale (MSAI; Furlong et al., 2002, 2013) asked about school boredom-related experiences. The items used a 10-point sliding response format (1 = *strongly disagree*… 10 = *strongly agree*). *School is really boring*, provided an indicator of generalized school boredom experiences. A second item, *School is worthless, a waste of time,* provided an indicator of the valance attributed to engaging in the schooling process.

Well-Being Indicators

Past-Week Experiences

The *Positive and Negative Affect Scale for Children* (PANAS-C; Ebesutani et al., 2012) measures past-week emotional experiences. A five-point response scale is used (0 = *not at all*, 1 = *a little,* 2 = *moderately,* 3 = *quite a bit,* and 4 = *extremely*). The *PANAS-C Positive Affect* (PANAS-C-PA) included five items (joyful, delighted, cheerful, alert, and determined) with acceptable internal consistency for the current study sample (α = .76). The *PANAS-C Negative Affect* (PANAS-C-NA) included five items (Villodas et al., 2011; scared, gloomy, nervous, upset, and sad). For the present study sample, the internal consistency was acceptable (α = .85).

Past 30-Day Experiences

The *Social Emotional Distress Scale–Secondary (SEDS-S,* Dowdy et al., 2018; 10 items) assesses internal emotional distress. A sample item is: *In the past month, it was hard to get excited about anything*. Response option are: 1 = *not like me,* 2 = *a little like me*, 3 = *pretty much like me,* 4 = *very much like me*). CFAs support a unidimensional model (Hinton et al., 2021) with acceptable reliability in the current study sample α = .95.

The *Mental Health Continuum Short Form* (MHC-SF, Keyes, 2005) measures emotional (EWB), psychological (PWB, six items), and social (SWB, five items) well-being, with previous studies supporting its three-factor structure (Keyes, 2006). The question stem is, *During the past month, how often did you feel the following ways* — (a) example psychological well-being: *…that you liked most parts of your personality*; and (b) example social well-being: *…that people are basically good.* Response options are: 0 = *never*, 1 = *once or twice*, 2 = *about once a week*, 3 = *2 or 3 times a week*, 4 = *almost every day*, and 5 = *every day*. Only the PWB and SWB subscales were used in the current analyses because the EWB items' content overlapped with the PANAS items. The subscales had acceptable reliability for the current study's sample (SWB α = .88, PWB α = .90).

General Well-being Indicators

The *Social Emotional Health Survey-Secondary-2020* (SEHS-S-2020; 36 items) measures students' self-reports of social and emotional assets. Response option are: 1 = *not like me*, 2 = *a little like me*, 3 = *pretty much like me*, 4 = *very much like me*). Previous research supports a three-level, one general factor model with four domains: belief in self, belief in others, emotional competence, and engaged living. Confirmatory factor analysis (CFA) and measurement invariance provide validity and reliability evidence (Furlong et al., 2021). For the current sample, the four domain alpha reliabilities ranged from .81 (emotional competence) to .90 (engaged living).

The *Brief Multidimensional Student Life Satisfaction Sale* (BMSLSS) measures student life satisfaction across five broad life domains (friends, family, self, school, and living environment). The items use a six-point point response format (1 = *strongly disagree*… 6 = *strongly agree*). Acceptable internal consistency is reported for previous samples (α = .75–.81; Furlong et al., 2021; Seligson et al., 2003) and for the current study's sample (α = .78).

School belonging was assessed with the School Connectedness Scale (SCS, Furlong et al., 2011; five items). Response options use a five-point format: 1 = *strongly disagree* … 5 = *strongly agree*. A sample item is: *I feel close to people at this school*. There is prior evidence of acceptable reliability (α = .82 to .87) and a unidimensional factor structure (Furlong et al., 2011). The alpha reliability for the current sample was .81.

Procedure

Following University of California Santa Barbara human subjects committee approval, passive parental consent, and student assent, students completed an online survey using tablets in a classroom setting. If students were absent during the initial administration session, they had up to five opportunities to complete the survey. At all schools, teachers received a script with which to proctor the administration of the measures.

Data Analysis Plan

The analysis plan was to form four groups based on the combination of high and low responses to the boredom and valence items, using the top 20% as the cutpoint. Univariate ANOVAs with Turkey post hoc contrasts evaluated mean group responses on the 11 well-being indicators. The results' practical importance was judged by examining the effect size of the mean differences of students fitting an SBM profile (i.e., high boredom and low valence) contrasted with the students fitting the opposite profile (i.e., low boredom and high valence).

Results

School Boredom Mindset Measure

Student responses to the school boredom attitude item, *School is really boring*, provided an indicator of generalized school boredom experiences. A second item, *School is worthless (a waste of time)*, provided an indicator of the valance attributed to engaging in the schooling process. These items were used to create the SBM index. Figure 1 shows the distribution of responses to each item. Responses to the boring school item were distributed across the response scale (M = 4.77, SD = 2.81). In contrast, the school valence item was positively skewed (M = 2.46, SD = 2.20), indicating that most students had a favorable school valence attitude. These items were correlated (r = .53), indicating that they measured related but not overlapping aspects of students' attitudes toward school. There were small effect size differences when comparing students' mean responses by gender identity: school boring gender, t (2272) = -6.13, p < .0001, d (95% CI) = .175–.340; school valence, t (2260) = -4.45, p < .0001, d (95% CI) = .104–.270.

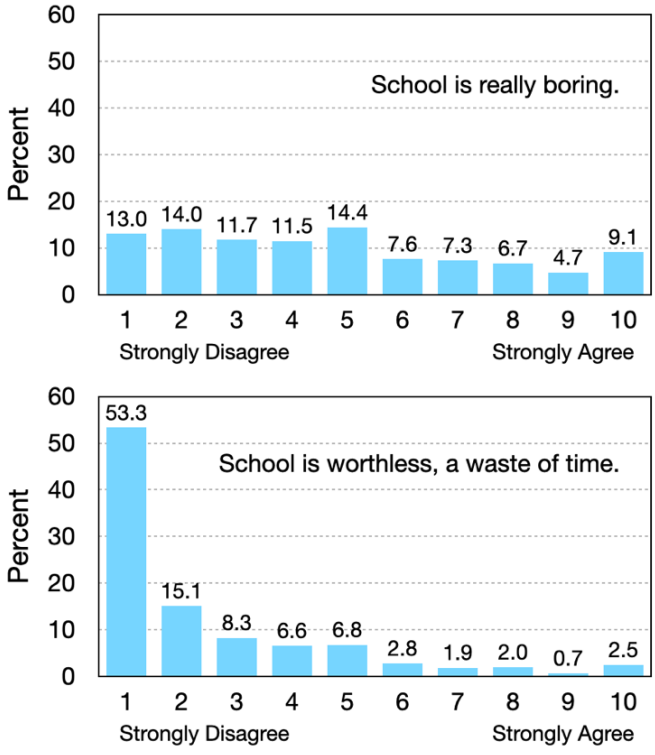

Figure 1. Response distributions to the school boredom and school valence items

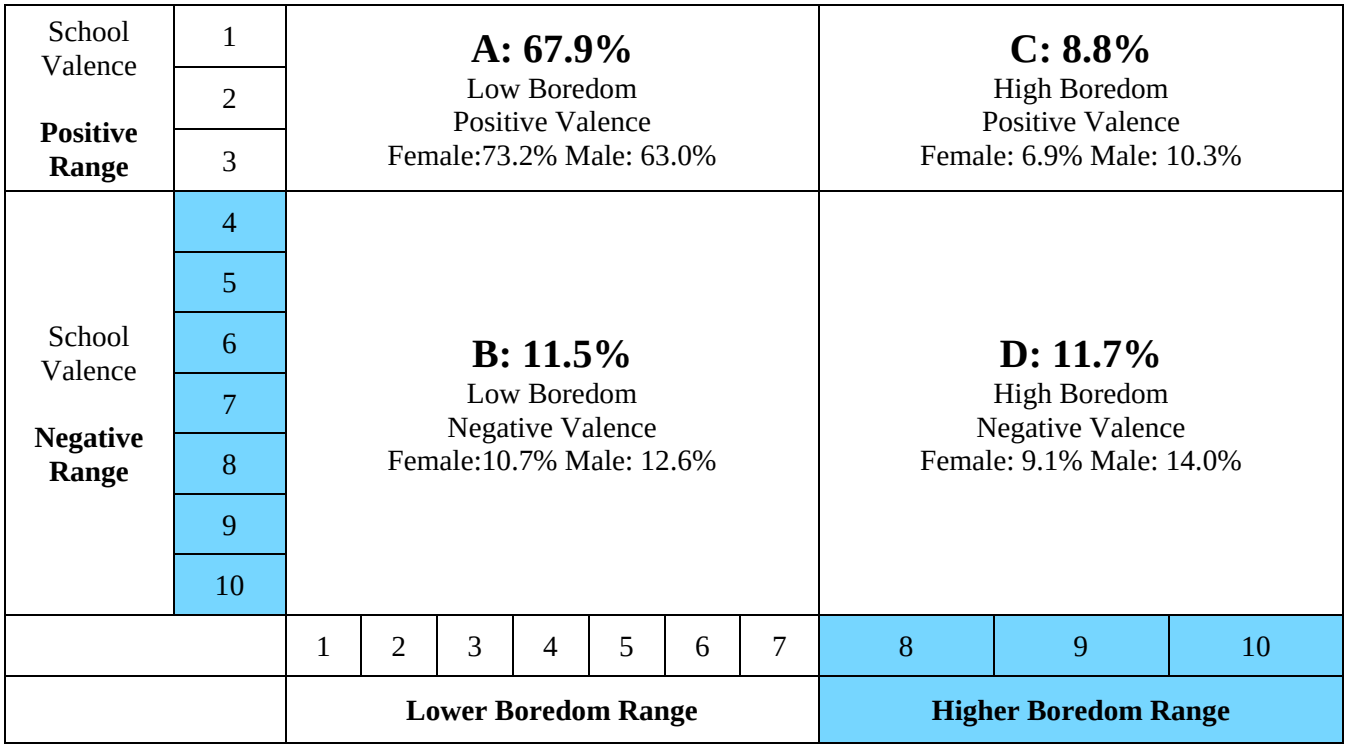

Figure 2. Boredom and valence response ranges used to form school boredom mindset groups.
Note. Group A students expressed the most positive balanced school attitudes and Group D students the most negative attitudes about school. Percentages are proportion of students in each group. See Table 2 for groups' wellness profiles.

School Boredom Mindset Groups

We examined item response distributions, identifying approximately the highest 20% of responses to each item — this included values of 8–10 for the boredom item and 4–10 for the school valence item. Figure 2 shows that high and low scores for each item form four groups: A = Low Boredom–Positive Valence, B = Low Boredom–Negative Valence, C = High Boredom–Positive Valence, and D = High Boredom–Negative Valence. Most students (67.6%) expressed low boredom and high valance school attitudes (Group A in Figure 2); these students expressed (in the inverse) the most positive attitudes toward school. At the other end of these dimensions, about 1 in 8 students expressed a school boredom attitude while expressing low school valance (Group D in Figure 2), which comprises the SBM exemplar group. Our interest in this preliminary analysis was to explore the associations between an SBM and students' self-reported quality of life and wellness indicators. We anticipated that students' generalized negative attitudes about school and engagement in the schooling process would be associated with significantly lower wellness and higher adverse well-being indicators. Group A and Group D comparisons should have the largest effect size differences if SBM is associated with well-being as anticipated. As shown in Figure 2, students identifying as male were under-represented in Group A lowest SBM group, $\chi 2$ (6, 2313) = 40.41, Cramer's V = .093, a small effect size difference.

School Boredom Mindsets and Well-being Correlates

This exploratory analysis has limitations because it relies on two single items to assess students' boredom perceptions and school valence. Nevertheless, these two items were quite sensitive to students' quality of life indicators. The smaller (11.7%) Group D of students expressing SBM reported significantly lower well-being across all 11 indicators than the larger (67.9%) Group A of students expressing a positive mindset. Table 2 shows that all Group A-D mean comparisons had substantial effect size differences ranging from d = 0.30 (PANAS-C-NA) to d = 1.17 (school belonging). The Group A–D means response differences were more pronounced for the flourishing well-being indicators (six of nine were large effect sizes) than the ill-being indicators (both small effect sizes). Diminished well-being was associated more strongly with boredom than school valence; this was found for recent (past week, past month) experiences and general well-being. These preliminary analyses showed that students whose responses fit SBM reported substantially diminished well-being compared to their peers.

Table 2. School boredom by school valence group means and standard deviations for well-being indicators.

Well-being Indicators (*N*) (Response range)		**School Boredom** Low (1-7) **School Valence** Pos (1–3) (A) 67.5%	Low (1-7) **School Valence** Neg (4–10) (B) 11.5%	High (8-10) **School Valence** Pos (1–3) (C) 8.8%	High (8-10) **School Valence** Neg (4–10) (D) 11.7%	*F*	Cohen *d* A vs. D
Past-Week Experiences							
PANAS Positive (2307) (1-5)	*M (SD)*	3.41 $_a$ (0.79)	2.94 $_c$ (0.85)	3.15 $_b$ (0.86)	2.79 $_c$ (0.94)	62.48***	0.71 M
PANAS Negative (2307) (1-5)	*M (SD)*	2.02 $_a$ (0.81)	2.34 $_b$ (0.97)	2.37 $_b$ (0.95)	2.36 $_b$ (1.08)	24.48***	0.36 S
Past 30-Day Experiences							
SEDS Distress (2315) (1-4)	*M (SD)*	1.74 $_a$ (0.67)	2.03 $_b$ (0.74)	2.02 $_b$ (0.75)	2.11 $_b$ (0.83)	35.44***	0.49 S
MHC-SF Social Well-Being (2290) (1-6)	*M (SD)*	4.09 $_a$ (1.22)	3.25 $_b$ (1.30)	3.45 $_b$ (1.30)	2.96 $_c$ (1.32)	44.43***	0.89 L
MHC-SF Psychological Well-Being (2289) (1-6)	*M (SD)*	4.60 $_a$ (1.08)	3.81 $_c$ (1.23)	4.10 $_b$ (1.18)	3.64 $_c$ (1.39)	80.45***	0.77 M
General Well-Being Indicators							
BMSLSS Satisfaction (2310) (1-6)	*M (SD)*	4.99 $_a$ (0.72)	4.46 $_b$ (0.81)	4.57 $_b$ (0.77)	4.28 $_c$ (0.95)	58.01***	0.84 L
SEHS Belief in Self (2315) (1-4)	*M (SD)*	3.08 $_a$ (0.49)	2.71 $_c$ (0.49)	2.85 $_b$ (0.51)	2.61 $_c$ (0.56)	101.14***	0.89 L
SEHS Belief in Others (2315) (1-4)	*M (SD)*	3.30 $_a$ (0.51)	2.87 $_c$ (0.56)	2.99 $_b$ (0.53)	2.77 $_c$ (0.63)	119.33***	0.92 L
SEHS Emotional Competence (2315) (1-4)	*M (SD)*	3.23 $_a$ (0.43)	2.98 $_b$ (0.46)	3.06 $_b$ (0.47)	2.84 $_c$ (0.56)	70.61***	0.78 M
SEHS Engaged Living (2315) (1-4)	*M (SD)*	3.12 $_a$ (0.55)	2.70 $_c$ (0.60)	2.90 $_b$ (0.56)	2.59 $_c$ (0.68)	95.10***	0.86 L
School Belonging (2331) (1-5)	*M (SD)*	3.97 $_a$ (0.63)	3.48 $_b$ (0.54)	3.55 $_b$ (0.69)	3.16 $_c$ (0.75)	161.24***	1.17 L

Note. SEDS = Social Emotional Distress Scale. PANAS = Positive and Negative Affect Scale. MHC-SF = Mental Health Continuum-Short Form, BMSLSS – Brief Multidimensional Student Life Satisfaction Scale. MHC-SF = Mental Health Continuum-Short Form. SEHS= Social Emotional Health Survey. D = highest School Boredom Mindset group. Mean values with different subscripts are significantly different ($p < .05$). Cohen effect size: S = Small, M = Medium, L = Large. *** $p < .001$.

Discussion

This paper proposed and described the SBM, providing preliminary evidence that in a sample of California secondary students, one in eight expressed strong negative beliefs about school, characterizing it as boring and of low value. Although our analysis suggested that some students' school boredom experiences could be viewed meaningfully through the SBM lens, further investigation is needed considering cross-cultural boredom influences (Ng et al., 2015; Vodanovich et al., 2011). A first critical task is standardizing SBM assessment for future research. Some central research questions are: How do the real-time emotional experiences of students with SBM compare to other students? Is SBM primarily a contextual manifestation of bored proneness, or does it have unique characteristics? When does SBM emerge? How does SBM progress from childhood into adolescence? Once SBM emerges, how stable is it?

As research to evaluate SBM's utility proceeds, students will continue to be bored in classroom contexts worldwide every day. As mental health professionals encounter students expressing boredom, the SBM, at a minimum, offers a heuristic to organize and inform efforts to provide targeted support services. Hence, the following sections offer resources to evaluate and respond when students experience bored feelings.

Responding to Students Boredom

Multitiered support systems (MTSS) have been widely adopted in schools throughout the U.S. as a framework for providing school mental health services and creating safe and supportive schools for all students (Charlton et al., 2018). MTSS emphasizes prevention, early intervention, and data-based decision-making to provide differentiated support levels for students based on their academic and social-emotional needs (Jimerson et al., 2016). Within MTSS, supports are organized generally into three tiers. Tier 1 provides universal supports for all students. Tier 2 provides targeted interventions for students at-risk and who need additional support. Tier 3 provides intensive services for students at the highest level of need. We use this three-tier organization to offer some initial guidance to school-based practitioners to assess and respond to boredom's everyday experience within schools.

Tier 1: Whole School Context

As part of Tier 1 activities, foundational to providing differentiated supports within an MTSS system is the presupposition that it is possible to identify accurately which students may benefit from more intensive services. The current study employed two related items (i.e., School is really boring and School is worthless (a waste of time), that offer a viable option to add boredom items to schoolwide universal screening assessment efficiently. Gathering broad information via a schoolwide screening assessment may provide an opportunity to examine further and evaluate the experiences of boredom and consider how best to respond in a differentiated and caring way.

Furthermore, school personnel are motivated to consider how the school campus and classroom instruction can be improved. Particular to boredom, analysis of schoolwide data can provide information on the need for enhanced curricular activities, instructional practices, and school climate more broadly. Universal screening within the MTSS framework is an efficient means of gathering data to inform decisions about which students may need additional targeted or intensive social-emotional supports (von der Embse et al., 2017).

Recognizing that numerous psychological constructs (e.g., gratitude, depression, subjective well-being, anxiety) cannot be included in schoolwide screening, it is essential to provide professional development on effective responses to listening to students' about their boredom experiences. For example, when a school mental health professional or any school staff hears any student say, "I am sad," they would not ignore it. They would naturally reach out to understand the source of the student's sadness. They do this not because they are primarily concerned that the student might be depressed, but to better understand the students' emotional experience. The motivation is not to find pathology but to support the student's optimal psychosocial development. The first goal is to normalize the student's experiences and offer support by a caring adult. A second aim is to explore what the student sees as the source of the sadness and evaluate if some follow-up supportive service might be helpful. For the vast majority of such encounters at school, the salving effects of communicating with a caring adult who is available and offering support resolves the student's immediate needs. This outreach also contributes to fostering a whole school climate that values and normalizes emotional experiences and encourages appropriate expression. For example, it is possible that when a student reports being bored, it might more accurately signify helplessness or feeling amotivation. A comprehensive school mental wellness

plan grounded in positive education principles helps all students be mindful of and accurately label their full range of emotional experiences, become aware of emotional sources, and consider how these experiences foster or hinder thriving well-being.

Just as students' sadness expressions evoke a caring response, students' boredom expressions should be acknowledged because they indicate nonoptimal schooling experiences (Sommers & Vodanovich, 2000). Dismissing students' expressions of boredom may waste a valuable teaching opportunity to explore further questions: What do you do when you feel bored at school? Is this working for you? Do you see this as getting in the way of your reaching your overall goals?

From a positive education perspective, all conversations about boredom should explore the student's passions (Park et al., 2020). The reason for this is that within a positive education paradigm, a goal is not just to help the student not-feel-bored but to recognize and develop their underlying interests and passions. This orientation guides school mental health professionals to help students see boredom as a message — they are ignoring their values, imagination, and dreams. Conversations about boredom can include psychoeducation provided to students and staff, emphasizing that all positive and negative feelings are functional and provide an opportunity to evaluate the current situation and make changes to stay motivated and engaged (Eastwood & Gorelik, 2019). Considering boredom and self-regulation links, teachers and students could reframe boredom as a signal of unused potential that could be harnessed by changing the difficulty level of the academic tasks or finding alternative ways to be meaningfully engaged and purposefully attend to the tasks (Eastwood & Gorelik, 2019). Such in-the-moment boredom self-awareness explorations have value for all students; they reframe boredom as a signal for reflection, personal growth, and action (Park et al., 2019).

Schools adopting an "embrace the boredom" orientation see this as an opportunity to foster students' personal growth and enhance engagement. Teachers can explicitly ask students about their boredom levels throughout tasks and actively engage in conversations about enhancing motivation. Teachers may wish to engage directly with students to enhance their own experiences with the classroom material: What would make this task more interesting? Is there a more engaging way to learn and practice the desired skills? Would it help to partner with a classmate to discuss? Is there a problem or inquiry-based way to practice this material? What are the real-world connections of this task? Further exploring why students are bored within a classroom could provide meaningful information to improve the task. Overall, universal schoolwide approaches are needed to enhance understanding of the boredom experience while also working to actively and meaningfully engage in schooling (Daniels et al., 2015).

Tier 2: Targeted Student Follow-up

Targeted Tier 2 approaches designate resources to students who may benefit from additional supports beyond those provided through caring schoolwide approaches offered at the universal level. Analysis of universal screening data disaggregated for subgroups or classrooms can provide information on the need for enhanced instructional practices with targeted subgroups of students and teachers. If, for example, most students within a specific tenth-grade classroom report significant boredom experiences, consultation with the teacher on ways to enhance motivation and differentiate instruction may be fruitful. Conversely, suppose an incoming cohort of ninth graders reports the highest levels of boredom across the school. In that case, this may indicate the need for targeted activities to increase school engagement for students new to the school.

Tier 2 interventions may help students like Ari, Baylor, Corey, and Dylan that report experiencing boredom. Before intervention and to inform appropriate interventions, Tier 2 activities involve following up with those students who reported boredom experiences on a schoolwide student survey. In particular, querying students who have reported boredom about their specific experiences with boredom will help determine how to best support students within the classroom and whether targeted or intensive services are likely to be beneficial. It may be that students are more likely to report feeling bored because it is more socially acceptable and potentially less stigmatizing than reporting symptoms of depression or anxiety. As such, a thorough assessment and inquiry into the student's overall mental health are warranted. If not included within the universal screening, it would be beneficial to gather information on how the student appraises their current distress and well-being (see Appendix 2 for suggested measures).

Another possible boredom precursor for Tier 2 student conversations is considering the environment person fit; that is, instructional contexts in which assignment demands do not match the student's skill set. Such contexts can include under-stimulated classroom material (too easy) or the converse

(academic skills are challenged excessively by the classroom activity). A recent study (Schwartze et al., 2020) found that both higher-achieving and lower-achieving students are vulnerable to boredom. In either case, a possible response is to evaluate the instructional demand student skill match and make appropriate adjustments. It will be critical to determine if the classroom material is appropriately matched with the student's zone of proximal development and also if there are other barriers to learning that may be impacting a student's experience of boredom. A targeted assessment via standardized screening tools or unstructured conversations aims to evaluate the environmental influences on students' boredom and the environment person fit (Goetz et al., 2014).

A school-based mental health professional or a caring adult within the school can engage students in a dialogue about their school-related experiences, including the previously mentioned general questions to be used at the universal level to evaluate their experiences. Specific questions about their boredom can help to conceptualize and further understand their school boredom experiences. Questions can ascertain if the student's boredom is:

1. fleeting (everyone gets bored from time to time, Ari);
2. situational (this is a boring assignment, Baylor);
3. disinterest in course subject matter (irrelevant topics, Corey); or
4. generalized personal style (pervasive experience, Dylan).

It will be relevant to query about boredom experiences in all classes and school-based activities. It may also be helpful to consider if the student's boredom experiences are limited to school or are pervasive, occurring during other activities (e.g., sports, clubs) and other contexts (e.g., home, work).

If the student frequently experiences boredom in one or two classes, consider having the student use an ESM monitor for several days (Chin et al., 2016; see Appendix 2 for resources). Prompting students to record their emotions at various moments throughout the day provides information about the full range of emotions the student experiences. Possible precursors associated with boredom can be analyzed and discussed. Tier 2 assessment and intervention will usually involve students who report having chronic boring experiences in only one or two classes and not more broadly across various life contexts. Tier 3 evaluation explores the needs of students with more chronic or pervasive experiences of boredom.

Tier 3: Intensive Follow-up with Highest Need Students

Tier 3 offers the most intensive support levels to students who have expressed or are experiencing the highest needs. Within the context of boredom, school mental health professionals need to individually follow-up with students who express an SBM or consistently report experiencing boredom across various contexts. Like Dylan, these students report pervasive experiences of boredom at school. Their evaluation should include the Tier 2 components described above and thoroughly review all boredom and value-related activities for each class, using ESM as helpful (see Appendix 1 for questions to explore the student's boredom-related experiences and Appendix 2 for measures).

It may be that students who express an SBM experience boredom not only at school but more generally in their lives. The current paper's analysis pattern showed that these youth report social-emotional distress and diminished well-being characteristics. These students may have a low locus of control and may have more extensive bored proneness patterns. As such, students with an SBM profile may benefit from a comprehensive social-emotional assessment to determine which prevention and intervention activities may be most appropriate. For example, consistent with a complete mental health model (Furlong et al., in press), it will be necessary to assess various well-being indicators, stress indicators, and cognitive factors (e.g., hyperactivity and executive functions) associated with boredom propensity (Gerritsen et al., 2014).

Consistent with recommendations for multifaceted assessments using multiple data sources, boredom may be considered one indicator, combined with other information and psychosocial functioning sources to determine the most appropriate intervention approach. During a comprehensive social-emotional assessment, a student may report significant symptoms of depression along with experiences of boredom; this student may benefit from cognitive-behavioral approaches to help students understand how thoughts, emotions (including boredom and sadness), and behaviors are interconnected. Alternatively, a student with chronic absenteeism and boredom may benefit from evidence-based practices, including mentoring or check-in/check-out interventions to increase attendance, school motivation, and school connectedness (see Bruhn et al., 2014). Given this

paper's analysis showing that students expressing an SBM reportee low school belonging, the assessment should evaluate if they are primarily bored within their classes or disengaging from the schooling process in general. In sum, the resulting interventions and supports need to align with the expressed areas of concern.

Implications for Positive Education

Attending to students' boredom expressions is critical, as it is for all emotional experiences. When a student feels sad or anxious, school personnel express concern and offer support. The same is valid for boredom, and the result of this paper's analysis emphasizes this observation. To the extent that this paper's preliminary analyses using a sample of California high school students generalizes to other school contexts, several practice implications emerged. Despite many students stating that school was boring, this sentiment was not associated yet with low school valence. When considered from a positive education lens, this favorable finding was that more than one-half of the students resoundingly indicated that they strongly disagreed (1 on the 10-point response scale) that school was a waste of their time. An implication is that many students experiencing school boredom appear to be similar to Ari, Baylor, and Corey. A differentiated response would consider ways to make academic tasks more engaging and complementing interests and passions. These students generally value education and seem amendable to curriculum and pedagogical enhancements.

At the same time, this paper's findings identified some students whose response pattern suggested a SBM. These students had negative attitudes about school and perceived that the overall school-enterprise had negligible value. This combination of the attitudes was associated with diminished short, medium, and global well-being indicators. These students will likely require intensive Tier 3 interventions and support that address students' school and non-school contexts.

When a student says, "I am bored," it is usually not a matter of significant concern. However, as this paper's analysis found, it could be a matter of substantial concern for perhaps as many as 1 in 8 secondary students. Regardless of a student's SBM profile, addressing students' boredom can always provoke awareness exploration. This exploration can foster positive personal growth and student-teacher-classroom-school accommodations that decrease boredom's frequency and increase the pursuit of personal passions. However, for some students, the expression of boredom could indicate critical psychological and social well-being concerns. For these students, informing school staff or mental health professionals that they are bored offers an opportunity to provide thoughtful, caring support that might otherwise go unrecognized.

Compliance with Ethical Standards

Ethical Standards

All study procedures involving human participants followed institutional and/or national research committee ethical standards and the 1964 Helsinki declaration and its later amendments or comparable ethical standards. All procedures were also approved by University of California Santa Barbara's Institutional Review Board.

Declaration of Conflicting Interests

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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Appendix A

Resources for a Student Boredom Conversation

School mental health professionals and other educators can take a differentiated exploration and response by engaging students in a conversation about how they perceive and value their classes and school-related activities. This appendix offers thematic areas and related questions to organize exploration of a student's school boredom experiences. Macklem (2015) provides a well-documented, practical resource for school mental health professionals' efforts to address students' boredom.

Educators General Orientation

These are general orientations to bring to the exploration with the student. Educators want a student to let them know when they feel bored. Help youths to recognize and accept these emotional experiences. Help the student evaluate and explore what they think provoked the bored feelings. As in any similar encounter, a school mental health professional will want to use this moment as a psychoeducational learning opportunity.

General Boredom Exploration

An initial point of clarification is to establish that "boredom" is an accurate emotional term for students' experiences. Is boredom the best label? What other emotions might the student be feeling? Upon reflection, do other emotion labels more closely describe the student's experience?

School Boredom Exploration

When it is clear that boredom accurately describes a student's emotional experience, the next goal is to explore the boredom's meaning: Where did you feel bored? Did you feel other emotions? Is this a new or recent experience? How often do you feel bored and where? Is this a school-related experience (primarily)?

Review a list of the student's classes. Consider using a daily emotional log to help the student become aware of their bored emotional experiences. What emotions do they have in each class? What other emotions do they have in their classes?

Exploring Student Boredom Experiences

Explore how the student experiences boredom in their classes and school activities: What do you think about when feeling bored in class? (cognitive component). When you feel bored in class, what do you want to do about it? (motivational component). How does your body feel when bored in class? (physiological component). On a 1-10 scale, how strong is your boredom in classes?

List all the student's classes and explore these questions: Do you feel that you belong in this classroom? Do you find this class to be very pleasant? Do you have high energy I in this class? Do you find that you just can't wait for this class period to end? Are your class assignments challenging? Are the class assignments interesting? Is the class subject matter interesting? What value and purpose in taking this class? Is the teaching style in this class is just about right for you? Do you get along with the teacher in this class? How do you know that the teacher in this class cares for you and the other students? Does the teacher in this class have high expectations for you?

Boredom Coping Questions

Explore what the student is doing with their boredom: Do you ask the teacher if you can do something else? *Do* you tell yourself to keep concentrating? Do you ask your teacher for more exciting tasks? Do you prepare for my next class or study for another subject? Do you make yourself aware of the importance of the class subject matter? Do you try to contact other classmates who are also bored? Do you talk to your classmate?

Mind Wandering

Mind wandering might be one way for a student to cope with boredom: Do you have difficulty maintaining focus on simple or repetitive work? While reading, do you find you haven't been thinking about the text and must reread it? Do you things without paying full attention? Do you find yourself listening with one ear, thinking about something else at the same time? Does your mind wander during class teacher lectures or other presentations?

Meaning and Purpose Questions

Boredom could be related a student's sense of engagement or life purpose. Exploring a student's values, passions, and purpose could provide ideas for positively coping with boredom and focusing on personal growth: In general, Do you feel a lack of stimulation or a lack of interest? Do you feel you have little control over your life or what you are doing right now? Do you have enough interesting things to do to fill your time? Do you have a lot of energy but don't know what to do with it? Do you feel overloaded by school assignments and expectations?

Appendix B

Boredom Assessment Resources

Boredom Measure Reviews

Mercer-Lynn, K., Flora, D. B., Fahlman, S. A., & Eastwood, J. D. (2013). The measurement of boredom: Differences between existing self-report scales. *Assessment, 20*(5), 585–596. http://dx.doi.org.proxy.library.ucsb.edu:2048/10.1177/1073191111408229

Vodanovich S. J., & Watt, J. D. (2015). Self-report measures of boredom: An updated review of the literature. *The Journal of Psychology, 150*(2), 196–228. https://doi.org/10.1080/00223980.2015.1074531

State Boredom Measures

Experience Sampling Monitoring

Mood Meter (https://moodmeterapp.com/)

Low cost app accessible with a smart phone or tablet. Provides in-the-moment ratings of 100 emotions, including boredom. Emotions are clustered in four quadrants based on being pleasant-unpleasant and low energy-high energy.

Close Gap (https://www.closegap.org/)

An app made available by a non-profit organization. Has versions appropriate for primary and secondary students. Includes administration management enabling it to be used by an entire classroom. Emotions do not include boredom, but tired and angry, closely related emotions, are included.

Multidimensional State Boredom Scale

Fahlman, S. A., Mercer-Lynn, K., Flora, D. B., & Eastwood, J. D. (2013). Development and validation of the Multidimensional State Boredom Scale. *Assessment, 20*(1), 68–85. http://dx.doi.org.proxy.library.ucsb.edu:2048/10.1177/1073191111421303

Academic Emotions Questionnaire

Pekrun, R., Goetz, T., Frenzel, A. C., Barchfeld, P., & Perry, R. P. (2011). Measuring emotions in students' learning and performance: The Achievement Emotions Questionnaire (AEQ). *Contemporary Educational Psychology*, *36*(1), 36–48. https://doi.org/10.1016/j.cedpsych.2010.10.002

Peixoto, F., Mata, L., Monteiro, V., Sanches, C., & Pekrun, R. (2015). The achievement emotions questionnaire: Validation for pre-adolescent students. *European Journal of Developmental Psychology*, *12*(4), 472–481. https://doi.org/10.1080/17405629.2015.1040757

Leisure Time Boredom

Caldwell, L. L., Smith, E. A., & Weissinger, E. (1992). Development of a Leisure Experience Battery for adolescents: Parsimony, stability, and validity. *Journal of Leisure Research, 24*(4), 361–376. https://doi.org/10.1080/00222216.1992.11969902

Trait Boredom Measures

Trait Boredom Scale

Farmer R., & Sundberg, N. D. (1986). Boredom proneness: The development and correlates of a new scale. *Journal of Personality Assessment, 50,* 4–17. https://psycnet.apa.org/doi/10.1207/s15327752jpa5001_2

Short Boredom Proneness Scale

Struk, A. A., Carriere, J. S. A., Cheyne, J. A., & Danckert, J. (2015). A Short Boredom Proneness Scale: Development and psychometric properties. *Psychology & Counseling, 24*(3), 346–359. https://doi.org/10.1177%2F1073191115609996

School Boredom Proneness Scale for Children

Carrington, T. (2019). Development of a school boredom proneness scale for children. *Educational Specialist*. 151. https://commons.lib.jmu.edu/edspec201019/151

Managing Boredom

Coping with Boredom Scale

Nett, U. E., Goetz, T., & Daniels, L. (2010). What to do when feeling bored? Students' strategies for coping with boredom. *Learning and Individual Differences, 20,* 626–638. https://www-sciencedirect-com.proxy.library.ucsb.edu:9443/science/article/pii/S1041608010001093?via%3Dihub

Precursors of Boredom Scale

Daschmann, E. C., Goetz, T., & Stupnisky, R. H. (2011). Testing the predictors of boredom at school: Development and validation of the precursors to boredom scales. *British Journal of Educational Psychology, 81*(3), 421–440. http://dx.doi.org.proxy.library.ucsb.edu:2048/10.1348/000709910X526038

Mind Wandering Questionnaire (for youth)

Mrazek, M. D., Phillips, D. T., Franklin, M. S., Broadway, J. M., & Schooler, J. W. (2013). Young and restless: validation of the Mind-Wandering Questionnaire (MWQ) reveals disruptive impact of mind-wandering for youth. *Frontiers in Psychology, 4,* 560. https://doi.org/10.3389/fpsyg.2013.00560

Appendix C

School Boredom Mindset One-Year Stability

Furlong, M. J., Smith, D. C., Springer, T., & Dowdy, E. (2021). Bored with school! Bored with life? Well-being characteristics associated with a school boredom mindset. *Journal of Positive School Psychology*. Retrieved from https://journalppw.com/index.php/JPPW/article/view/261

This supplemental analysis provides school mental health professionals information about the one-year stability of students' School Boredom Mindset (SBM).

This paper's main document introduced the School Boredom Mindset (SBM) construct and its primary analysis examined the cross-sectional responses of 2,331 students in Grades 7-12 (T1) participating in the California Student Wellness Study (see, www.covitalityucsb.info). This supplemental analysis examines the response of a subset of 687 students one year later (T2) to the same online school mental health monitoring survey. At T2, 59% of the students were in Grade 10 and 41% in Grade 11.

Other sample social-demographic characteristics were: gender identification (54.2% female, 40.7% male, 1.9% other identification); socio-cultural categories (White 53.3%, Latinx/Hispanic 28.4%, two or more 11.1%, other preferred identities, 7.2%); and parents' highest education level (college graduate 63.7%, some college 11.6%, did not finish high school 8.6%, high school graduate 6.9%, and don't know 9.3%).

One-year Stability of School Boredom Mindset (SBM) Item Responses

This current analysis assessed SBM with two items:

> *School is really boring* (Boring): (1 = strongly disagree…10 = strongly agree).
>
> *School is worthless, a waste of time* (Worthless): (1 = strongly disagree…10 = strongly agree).

Responses to these two items were moderately stable. Both T1-T2 stability coefficients were significant in the medium–large effect size range: Boring (r = .51, p < .0001); Worthless (r = .47, p < .0001).

One-year Stability of School Boredom Mindset Group Classification

As with the T1 responses, to evaluate students' attitudes toward school, with the T2 responses, we examined item response distributions, identifying approximately the highest 20% of responses to each item — this included values of 8–10 for the boredom item and 4–10 for the school valence item. These cut scores defined Low–High Boring and Worthless groups:

A. L-H Group expressed positive school attitudes with low boredom and high valence (n = 405).
B. L-L Group expressed low boredom attitudes while expressing low school valence (n = 69).
C. H-H Group expressed high boredom while holding high school valance (n = 51).
D. H-L Group expressed a school boredom mindset with high boredom and low valance (n = 55).

T1-T2 SBM Classification Concordance

We crossed the T1 by T2 SBM group classifications to evaluate overall concordance in a 4 x 4 contingency table as shown in Table 1. Students' SBM classifications were moderately consistent, $\chi 2$ (9, N = 697) = 148.71, p < .0001). Cramer's CV was .27, indicating a moderate effect size relationship.

The shaded blue cells in Table 1 show T1-T2 classification concordance. We found the following patterns:

1. **Group A** students (most positive school attitudes at T1) showed the most classification consistency at T2 (79.1%), only 5.1% of these students showed full SBM at T2.
2. **Group D** students with T1 full SBM showed substantial classification consistency with 40% T1-T2 concordance. Notably, 76.4% of the T1 Group D SBM students continued to express less-than-optimal school attitudes at T2. Nonetheless, 23.6% of these students expressed positive school attitudes at T2, providing evidence that positive change is possible.
3. **Group B** students had 29.0% T1-T2 concordance, with nearly half (46.4%) expressing positive school attitudes at T2. For these students expressing low school valance at T1, 20.3% expressed a full SBM at T2.

4. **Group C** students had 23.5% T1-T2 concordance with almost 3 in 5 (58.8%) expressing positive school students at T2. In contrast to the Group B students, few Group C students (3.9%) expressed SBM at T2.

Table 1. Time 1 by Time 2 School Boredom Mindset Classification

	Time 1 SBM			
Time 2 SBM	A. Low-High	B. Low-Low	C. High-High	D. High-Low
A. Low-High	79.1%	46.4%	58.8%	23.6%
B. Low-Low	9.8%	29.0%	13.7%	21.8%
C. High-High	6.1%	4.3%	23.5%	14.5%
D. High-Low	5.1%	20.3%	3.9%	40.0%

One-year Predictive Relations Between School Boredom Mindset Classification and Life Satisfaction

To evaluate how T1 SBM classification was associated with a T2 well-being indicator, we compared responses on the Brief Multidimensional Student Life Satisfaction Scale. This five-item scale measures global well-being using a six-point response format (higher scores indicate positive ratings). The four T1 SBM groups had significantly different mean BMLSS total scores one year later at T2, F (3, 686) = 16.18, $p < .0001$), $\eta 2 = .066$, medium effect size): **Group A** ($M = 4.96$, $SD = 0.74$), **Group B** ($M = 4.51$, $SD = 0.89$), **Group C** ($M = 4.61$, $SD = 0.76$), **Group D** ($M = 4.41$, $SD = 0.90$). Post-hoc (Turkey) comparisons showed Group A > Groups B, C, D.

We further examined the BMSLSS responses of the 55 T1 Group D students whose responses fit SBM. As noted, at T2, 40% of these students remained in Group D, with others changing categories. At T2, the SBM Group D students had lower BMLSS total scores compared with other students, $F(3,51) = 3.49$, $p = .022$, $\eta 2 = .17$; large effect size: **Group A** ($M = 4.97$, $SD = 0.75$), **Group B** ($M = 4.38$, $SD = 0.85$), **Group C** ($M = 4.45$, $SD = 0.65$), **Group D** ($M = 4.02$, $SD = 0.94$). This pattern shows that the T1 students with SBM who expressed positive Group A attitudes at T2 had substantially higher life satisfaction than students with chronic T1 to T2 SBM.

Summary

This supplemental analysis provides essential information for school mental health professionals working with students when they are seeking to help students optimize their intrinsic motivation to succeed in school and life. The findings show that SBM has moderate stability over one year, and the T1 SBM is associated with overall life satisfaction one year later. This finding emphasizes the importance of considering student expressions of boredom at school seriously. Simultaneously, the T1 to T2 patterns show that students' general attitudes about school have some fluidity, suggesting the potential for support services to help students become engaged and value their school experiences.

Qualifications

A caveat is that these preliminary patterns derive from a California opportunity sample, and generalization limitations to other students in diverse school contexts are necessary. The students completed the surveys in October 2018 and October 2019 before distance learning due to the Covid-19 pandemic.

Take Away Implications

This supplemental analysis supports the importance of taking school boredom expressions seriously because some are not fleeting experiences.