A Review and Analysis of School Climate Measures for School Counseling Professionals

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Abstract

Most professionals agree that shared beliefs, values, and attitudes that frame interactions and set standards for behavior are important to the success of the staff and students in America’s schools. Researchers have documented that student achievement, dropout rates, problem behavior, and teacher retention are related to school climate and few deny the need for schools to be and remain positive environments. In this article, we focused on addressing key questions facing school counseling professionals charged with measuring school climate. We review both the context and practice of documenting the quality and character of life in elementary, middle, and high schools and provide a systematic review and analysis of measures that we believe serves as a preliminary consumer’s guide for professionals engaged in important levels of decision making related to monitoring and improving what goes on in schools.

Keywords: school climate, assessment, measures of school climate
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School climate has been a valued and important construct in education for many years (Freiberg, 1999; National School Climate Center, 2014; National School Climate Council, 2014; Perry, 1908; Thapa, Cohen, Higgins-D’Alessandro, & Guffey, 2012; Thapa, Cohen, Guffey, & Higgins-D’Alessandro, 2013). Typically based on perceptions and ratings of students, teachers, and parents, it has been studied in classroom (e.g., Ellett & Walberg, 1979; Moos, 1979; Walberg, 1969) as well as more general school contexts (e.g., Anderson, 1973; Coughlan, 1970; Sinclair, 1970).

School climate continues to be an important issue in education today, in part because of documented relationships with important dimensions of student learning (Mitchell & Bradshaw, 2013; Weist, Lever, Bradshaw, & Owens, 2014). Researchers have documented positive relationships between school climate and a variety of desirable outcomes, such as the mental and physical well-being of students, discipline and attendance, motivation and learning, and academic and social behavior outcomes (Anderson, 1982; Brookover et al., 1978; Thapa et al., 2013). A recent study showed that school climate influenced how teachers perceive students and that teachers who worked in schools with more positive school climates reported fewer problem behaviors in their classrooms (O’Brennan, Bradshaw, & Furlong, 2014).

There is also an increased emphasis on school climate at the national level as federal and other policy makers call for improvements in the systems in which children learn. For example, the Center for Social and Emotional Education (CSEE), now the National School Climate Center (NSCC), in partnership with the National School Climate Council, has developed National School Climate Standards (National School Climate Council, 2010). A growing number of State Departments of Education are focusing on school climate reform as an essential component of school improvement. Motivated in part by the challenge of creating and maintaining safe schools where effective teaching and learning can take place, the U. S. Department of Education (2014a)
recently issued guidance on improving school climate, indicating practices that were backed by research should be used when developing policies at various levels (e.g., state, district, and local) to improve school climate. Following the publication of these guidelines, the U. S. Department of Education awarded more than 70 million dollars to states and school districts aimed at the development, improvement, and enhancement of systems and practices that improve school climate and student safety (U. S. Department of Education, 2014b).

In line with past and present school improvement efforts, school counselors have a long-held interest in addressing school climate as leaders and advocates for the academic, personal/social, and career success of all students (Ratts, DeKruyf, & Chen-Hayes, 2007; Shulz, Hurt, & Lindo, 2014; Walsh, Barrett, & DePaul, 2007). School counselors involvement in school climate starts with an ethical responsibility to create and promote a school climate that is welcoming to students and parents and that is conducive to student achievement (ASCA, 2010; Van Velsor & Orozco, 2007). The American School Counselor Association (ASCA) and related educational associations identify school counselors as key contributors to a safe and productive school climate through roles and responsibilities that include: leadership of building-level teams; collecting, analyzing, and interpreting data; designing and implementing prevention and intervention strategies; supporting teachers through collaboration and consultation; and coordinating with community agencies to access resources (ASCA, 2012; Cowan, Vaillancourt, Rossen, & Pollitt, 2013). School counselors are also called to create a safe, orderly, and caring school climate that embraces student diversity and helps to remove barriers to student success (ASCA, 2009, 2011; Education Trust, 2009).

When school counselors assess perceptions of school climate, valuable insights are gained into the educational experiences of the students they seek to support. Gaps in student learning, attendance, behavior, and services received can be identified, and targeted supports can be put in place to close the identified gaps (Bruce, Getch, & Ziomek-Daigle, 2009; Dahir & Stone, 2003;
Schulz, 2011). This type of intentional use of data to identify student needs, coupled with the implementation of a comprehensive school counseling program to meet these needs contributes to an improved school climate for students and teachers (Duarte & Hatch, 2015; Froeschle & Nix, 2009; Lapan, Gysbers, & Petroski, 2001; Lapan, Gysbers, & Sun, 1997; Reback, 2010).

In developing this article, we were interested in both the context and practice of measuring climate in elementary, middle, and high schools. We focused our contextual review by addressing three questions using extant literature:

1. What are core concepts in definitions, categories, dimensions, and indicators of school climate?
2. What are correlates of school climate?
3. How are school climate data collected (e.g., standardized measures, observations, informant surveys or interviews, extant sources, other)?

Therefore, our practical analysis (see Method and Results) focused on the characteristics and availability of measures that provide school counselors and other professionals with information needed to choose a sound measure conducive to assessing school climate effectively and efficiently.

**Defining School Climate**

Although it is widely agreed that there is no universally accepted definition for or dimensions and indicators of school climate (Anderson, 1982; Brookover et al., 1978; Cohen et al., 2009; Jimerson, Nickerson, Mayer, & Furlong, 2012; Thapa et al., 2013), most professionals ground it in concepts of quality and character of school life (see Table 1). During their time in school, people form opinions about what they are experiencing (CSEE/ECS, undated). It is these impressions that administrators, researchers, and policy makers use to define school climate and operationalize dimensions and indicators of it that can be measured and documented.

Historically, Moos (1979) suggested relationship, personal growth, and system maintenance
and change as dimensions for measurable subcategories of school climate indicators. More recently, professionals have operationalized it using perceptions of the “atmosphere, feelings, tone, setting, or milieu” of a school and important “characteristics” reflective of life in it (Cohen et al., 2009, p. 182, emphasis in original); while, the National School Climate Center (NSCC) and the National School Climate Council (SCC) suggest that safety, teaching and learning, interpersonal relationships, and institutional environment are typically included in lists of features used in school climate research.

**Connecting School Climate**

Although student support, school safety, and academic achievement are often discussed independently, they are interactive and often interdependent. For example, school safety is one correlate of attendance and academic achievement…and the school environment plays an important role in preventing [childhood disorders].

(Osher, Dwyer, Jimerson, & Brown, 2012, p. 27)

A growing body of evidence suggests that school climate is related to effective teaching as well as successful student mastery of academic and social skills necessary for an engaged and contributive life. Other correlates of positive school climate include: physical and emotional safety, health, and well-being; strong, supportive relationships among students, educators, families, and other members of the community; and continued effective teaching and ongoing learning (Cohen & Grier, 2010; O’Malley, Katz, Renshaw, & Furlong, 2012). A closer look at these connections provides insight into what school counselors are trying to prevent, promote, develop, encourage, demonstrate, and implement when they focus on school climate.

Researchers link *physical and social-emotional safety, health and well-being* to positive school climate characterized by respectful interactions between students and school staff and among students. These interactions promote student physical health (Cohen, 2001; Najaka, Gottfredson, & Wilson, 2002; Rand Corporation, 2004; Wang, Haertel, & Walberg, 1993); student mental health (Adelman &
Taylor, 2012; Suldo et al., 2009); student self-esteem (Way, Reddy, & Rhodes, 2007); and student engagement (Skinner & Belmont, 1993). In contrast, they are noted to prevent educator emotional exhaustion, depersonalization, and feelings of low personal accomplishment (Grayson & Alvarez, 2008) and promote teachers’ beliefs of their impact on student learning (Hoy & Woolfolk, 1993).

Physical and social-emotional safety, health and well-being is also associated with school-wide and classroom systems, interventions, and practices that address and eliminate problem behaviors such as bullying (Bandyopadhyay, Cornell, & Konold, 2009; Birkett, Espelage, & Koenig, 2009; Nansel et al., 2001; Rivers, Potecat, Noret, & Ashurst, 2009), victimization (Rigby, 2000), aggression and school violence (Brookmeyer, Fanti, & Henrich, 2006; Goldstein, Young, & Boyd, 2008; Karcher, 2002b; Kosciw, Diaz, & Greytak, 2008; Meraviglia, Becker, Rosenbluth, Sanchcez, & Roberston, 2003; Wilson, 2004), risk-taking behavior (Berkowitz & Bier, 2005; Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002; Greenberg et al., 2003), and general behavior problems (Wang & Dishion, 2011). Additionally, physical and social-emotional safety, health and well-being includes the development of fair and enforceable school rules and consistent routines and procedures (Bear, 2010; Bear, Gaskins, Blank, & Chen, 2011; Gottfredson, Gottfreson, Payne, & Gottfredson, 2005; Gregory et al., 2010; Henry, Farrell, Schoeny, Tolan, & Dymnicki, 2011; Stockard & Mayberry, 1992).

The literature describes the positive school climate correlate strong and supportive relationships as concern about individuals’ quality of life. This includes development of interventions that increase student connectedness to school (Karcher, 2002a; Loukas, Suzuki, & Horton, 2006; McNeely, Nonnemaker, & Blum, 2002; Resnick et al., 1997; Ruus et al., 2007; Skiba et al., 2004; Waters, Cross, & Runions, 2009; Whitlock, 2006), promotion of good relationships among members of the school community (Bryk & Schneider, 2002; Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010), and encouragement of active and collaborative learning (Carnegie Corporation of New York & Center for Information on Research on Civic Learning and Education, 2003; Ghaith, 2003; Skinner &
Chapman, 1999; Wentzel, 1997; Wentzel & Watkins, 2002).

Effective teaching and ongoing learning, as they relate to positive school climate research, include demonstration of content and skill mastery by students and the acknowledgement of academic achievement by teachers (Brand, Felner, Shim, Seitsinger, & Dumas, 2003; Griffith, 1995; Ma & Klinger, 2000; MacNeil, Prater, & Busch, 2009; Stewart, 2008). Links to positive teacher and student outcomes also incorporate implementation of evidence-based character education programs (Benninga, Berkowitz, Kuehn, & Smith, 2003; Suldo et al., 2009), evidence-based social and emotional learning programs (Battistich, Schaps, & Wilson, 2004; Bradshaw, Koth, Thorton, & Leaf, 2009; Elias & Haynes, 2008; Payton et al., 2008), service learning projects (Bandura, 2001; Morgan & Streb, 2001; Youniss et al., 2002), and best-practice teaching strategies (Suldo et al., 2009). Further research has documented a link between positive school climate and the prevention of barriers to student learning such as school absenteeism (Corville-Smith, Ryan, Adams, & Dalicandro, 1998), school avoidance (Brand et al., 2003; Welsh, Stokes, & Greene, 2000), and student delinquency (Gottfredson et al., 2005).

As can be seen, a large body of correlational research connects school climate with valued educational outcomes in areas that are of primary concern to school counselors. The power of these relationships was at the base of Secretary of Education Duncan’s call for school, district, and state leaders to “take deliberate steps to create the positive school climates that can help prevent and change inappropriate behaviors” (Duncan, 2014, p. ii). Furthermore, the “Guiding Principles” document (U. S. Department of Education, 2014a), which draws from emerging research and best practices to describe three key principles and related action steps, was released to guide state and locally controlled efforts to improve school climate and school discipline. Additionally, Jonathan Cohen (n.d.), cofounder and president of the National School Climate Center, suggests that creating a positive school climate is an ongoing process that involves the following steps:
1. Plan and prepare for the next phase of the improvement process.
2. Evaluate the climate.
3. Understand the evaluation findings and create an action plan.
4. Implement the action plan.
5. Begin the cycle anew. (p. 2, emphasis added)

As can be noted from this context, the value of school counselors knowing how to measure the factors researchers have linked to physical and emotional safety, health, and well-being; strong, supportive relationships among students, educators, families, and other members of the community; and, effective teaching and ongoing learning becomes strikingly apparent.

School counselors are often called upon to lead the work of addressing school climate because of their unique skills and training, as well as their school-wide focus on supporting all students academic and personal/social development within a safe environment (Hernandez & Seem, 2004; Hofstrand, 2003; Ray, Lambie, & Curry, 2007). School counselors also collaborate with students, teachers, administrators, parents, and community members as part of the school counseling program, therefore, school counselors are well positioned to impact school climate through these relationships (Nassar-McMillan, Karvonen, Perez, & Abrams, 2009; Tucker, Dixon, & Griddine, 2010). It is clear that a significant role of school counselors involves creating a safe and positive school climate for all students, however, there is a lack of guidance and resources in the literature about how school counselors should go about measuring school climate in a systematic, efficient, and reliable way. Therefore, a deeper understanding of how school climate is measured and an analysis of school climate measures to determine appropriate tools is necessary.

**Measuring School Climate**

To document climate, most school counselors and other professionals turn to surveys that ask teachers, students, and/or parents to make judgments about selected aspects of the quality and
character of school life. For example, a climate survey may determine the amount of trust staff
members have for each other, whether or not staff agree with the school mission, or if the staff feel
free to state their opinions at school (Clifford et al., 2012); or, it might request opinions about the
school’s appearance, staff relationships, student interactions, leadership decision-making, or
discipline. A collection of items about general and/or targeted dimensions of school climate (see
Table 2) also may be found within these measures.

School Climate Measurement Practices

A comprehensive review of school climate measures (see Search Procedure) revealed
common structural and procedural characteristics. Typically, school climate surveys are administered
in pencil-and-paper or electronic formats. Completion times vary depending on the form, content,
deepth, and number of items with 15-30 minutes being typical. Most school climate surveys are
directed towards students, parents, and teachers, while others are intended for administrators and
other school faculty members. Surveys range from 20-100 items; however, the majority of surveys
include 40-80 items. Not surprisingly, fewer items are provided to younger students, whereas surveys
administered to high school students, teachers, and other staff members frequently contain more
questions. School climate surveys include questions or statements that are rated on a Likert scale,
ranging from 1-4 (e.g., 1- strongly disagree, 2- disagree, 3- agree, 4- strongly agree; 1- disagree a lot,
2- disagree, 3- agree, 4- agree a lot) or 1-5 (e.g., 1- strongly disagree, 3- neutral/not sure, 5- strongly
agree; 1- not at all, 2- a little, 3- sometimes, 4- quite a bit, 5- very much; or 1- never, 2- rarely, 3-
ocasionally, 4- often, 5- regularly). Surveys directed towards younger elementary-aged students may
include pictures (e.g., very sad face, sad face, neutral face, happy face, very happy face) to represent
ratings from strongly disagree to strongly agree. Questions about demographic information, yes or
no questions, and opened ended questions for written responses, may also be included in school
climate surveys. Depending on the measure, data may be analyzed through an online program or by
What We Know and Need to Know

Research and professional practice indicates that school climate reflects the quality and character of what goes on in schools; it is based on students', parents', and school personnel's perceptions of school life and is valued as a representation of “norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures” (Dary & Pickeral, 2013, p. 3; National School Climate Council, 2014; Safe and Supportive Schools, n.d.). Researchers have documented relationships between school climate and important academic and behavior outcomes fundamental to the work of school counselors, including student achievement, discipline referrals, graduation rates, teacher satisfaction and turnover, and school improvement (U. S. Department of Education, 2014a). Policy makers and other educational leaders have argued that efforts to make schools safer should include procedures for documenting, monitoring, and improving school climate. As such, gathering these data and providing ongoing professional development targeted to the outcomes are recommended practices driving these efforts, and school counselors stand to be an integral part of this process (Briggs, Gilligan, Staton, & Barron, 2010; Wingfield, Reese, & West-Olatunji, 2010).

Existing databases are available that list school climate measures with brief descriptions, but these databases require external analysis to identify reliable measures (NCSSLE, 2015). School counselors, who are already required to follow district, state, and federal education policies and initiatives, are left with minimal time to analyze the reliability and determine the availability of measures on their own. The time and effort required to conduct an analysis of school climate measures, might in turn hinder a school from measuring their school's climate. In efforts to bridge this potential research-to-practice gap, resources for measuring school climate should be readily available for school use, and not require further analysis by school counselors or partnering school
staff. Therefore, the purpose of this article was to provide a resource for school counselors that identifies reliable measures of school climate that are readily available for school use. To add to this knowledge base, we completed a practical analysis focused on two questions:

1. What are the characteristics (e.g., who, what, where, when) of measures of school climate?
2. What is the availability of measures of school climate?

Method

In addition to the context for past and current interest in school climate, we focused our review on practical information for school counselors interested in documenting the quality and character of life in elementary, middle, and high schools. Our search procedure, screening and review criteria, and design and data analysis are described in the following sections.

Search Procedure

A thorough search was conducted to locate school climate measures recommended for school counselors to use in elementary, middle and high schools. Reviews of school climate research in peer reviewed journal articles and summary documents developed by organizations researching school climate served as starting points to gain an understanding of existing school climate measures (Clifford, Menon, Condon, & Hornung, 2012; National Center on Safe Supportive Learning Environments, 2011; Thapa, Cohen, Guffey, & Higgins-D’Alessandro, 2013; Thapa, Cohen, Higgins-D’Alessandro, & Guffey, 2012). References to and descriptions of recently developed and adapted school climate measures were then extracted from these reviews for further examination using our screening criteria (see Screening and Review Criteria).

An extensive library database search was then conducted to examine existing school climate measures and research related to measure use. To attempt a wide-reaching search, the terms school climate, measure, and survey were entered into the Education Resource Information Center (ERIC) and Education Research Complete databases simultaneously resulting in a list of 321 publications. The
citations for each publication and links to copies of each publication were saved and recorded. The keyword *environment* appeared frequently in the results and citations found in the first search. Therefore, a second search was conducted in an attempt to find additional publications relevant to school climate measures that were not revealed in the first search. For the second search, the terms *school climate*, *measure*, *survey*, and *environment* were entered into the ERIC and Education Research Complete databases generating 138 results. The second search results included many of the publications from the first search. Together, the searches using library databases provided a multitude of literature sources that reviewed school climate research, cited specific school climate measures, and described school climate measure use in schools. However, copies of the cited school climate measures were not provided in many of these publications. Therefore, a third search was conducted in the Health and Psychosocial Instruments database using the terms *school climate* in an attempt to find actual copies of school climate measures. The instrument search yielded 54 results consisting of publications describing measures and research involving specific measures. The citation for each school climate measure, research publications and the links to copies of measures included in the 54 results were saved and recorded.

The search procedure above culminated in a comprehensive list of current school climate research and existing school climate measures. However, to locate actual school climate measures not found in the library database, Internet searches were also conducted. Specific measures cited in current school climate research reviews, peer reviewed journal articles, and in the Health and Psychosocial Instruments database were searched for individually on the Internet. The Internet searches yielded links to online versions of measures and contact information for accessing measures on university, school district, organization, and measure developer websites. The Internet addresses, links, and other contact information for measure developers were recorded.

**Screening and Review Criteria**
The first three authors conducted the screening and review process of the school climate measures found in the aforementioned search. Specific inclusion and exclusion criteria were used to identify appropriate school climate measures for school counselors to use in elementary, middle and high schools including: the definition of school climate used, availability, scoring services offered, scope of respondents, method of assessment, and psychometric properties. First, it was necessary for the school climate definition used in the measure to be comprehensive and align with the working definition we used for the screening process: School climate refers to the quality and character of what goes on in schools; it is based on students', parents', and school personnel's perceptions of school life and is valued as a representation of “norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures” (Dary & Pickeral, 2013, p. 3; National School Climate Council, 2014; Safe and Supportive Schools, n.d.). This alignment ensures that the selected measures assess the overall climate of a school as opposed to a more specifically defined construct (e.g. bullying or school violence only). Measures that included a comprehensive definition of school climate in alignment with our working definition were included for our final analysis; whereas measures with limited or focused definitions of school climate (e.g. focused on measuring bullying or school violence only) were excluded.

School climate measures were also screened for availability. Measures were defined as available if they were easy to locate via an Internet search and could be acquired by school counselors in a timely manner directly from a website or by contacting the measure developer. Measures that were easily accessible via the Internet or that could be accessed by contacting the measure developer met our criteria for availability and were therefore included for our final analysis. Measures that were not available on the Internet or that lacked developer contact information to access the measure were excluded from our final analysis.

Considering the potential time involved in scoring school climate measures, the scoring
services offered by measure developers were also reviewed. Whether or not scoring services were offered and the extent to which school counselors have access to measure results were recorded. Measures that included scoring service options conducted by measure developers met our criteria and were therefore included for our final analysis. Measures that did not include scoring service options were excluded from our final analysis. Because schools enroll students according to grade levels, school climate measures were reviewed to determine the grades for which they were designed. Measures intended for use in elementary, middle or high school settings were included for our final analysis.

To ascertain the scope of intended respondents, measures were reviewed to determine the target population the measure was designed for. School climate measures designed for students’, parents’, school personnel, or community members met our inclusion criteria considering the potential need for school counselors to measure a variety of respondents to gather diverse perspectives about their schools climate. Measuring school climate from the perspective of multiple stakeholders also gives school counselors the opportunity to identify factors that contribute to effective school-family-community partnerships, and incorporate school climate data into other needs assessment results and program goals (Bryan & Griffin, 2010; Bryan & Henry, 2012; Goodman-Scott, 2014). In addition to target population, the method of assessing information was also considered when reviewing appropriate school climate measures for school counselors to use in elementary, middle and high schools. Informant-based measures directly assess the perception of respondents, obtain multiple perspectives, and are efficient to use in school settings. Our analysis of school climate measures focuses on assessing the perception of students’, parents’, or school personnel, who are directly involved in contributing to and participating in a schools climate. Therefore, informant-based measures were included for our final analysis, while observation-based measures were excluded.
Finally, measures were screened and reviewed for technical adequacy. To ensure that school counselors have the information needed to choose a sound school climate measure, only valid and reliable indices of school climate were included for our final analysis. Consistent with other reports and recommended best practice (cf. Hanson & Kim, 2007; Nunnally, 1978), measures with average psychometric characteristics of .60 or higher were included in the final analysis and those with average psychometric characteristics of .59 or lower were excluded from further analysis.

**Design and Data Analysis**

First, a comprehensive search for school climate measures was conducted. Next, each of the saved and recorded school climate measures was initially screened and reviewed using the aforementioned criteria to determine which school climate measures were appropriate for school counselors to use in elementary, middle and high schools. Following the first screening and review, the school climate measures that met our criteria underwent a final analysis using our screening and review criteria to determine the measures that most accurately and completely fit our criteria for school counselors to use in elementary, middle and high schools.

**Results**

We were interested in providing a practical analysis for school counselors interested in measuring school climate in elementary, middle and high schools by documenting the characteristics and availability of selected school climate measures. Our final product provides an efficient review of key features and a base for determining the potential usefulness and appropriateness of a measure for a school.

**Characteristics of School Climate Measures**

An extensive search for school climate measures yielded a plethora of resources and documents. In most cases, school climate measures were discussed or mentioned in review documents that illustrated various definitions and key aspects of school climate and listed specific
school climate measures. The final analysis, which included 26 measures purporting to assess school climate, was conducted to establish the specific characteristics of each measure and determine which measures were most adequate for school counselors to use for elementary, middle and high school settings.

**Purpose of measures.** Initially, it appeared that each measure assessed school climate similarly; however, with further analysis, it was evident the authors of each measure defined school climate differently and therefore, each measure assessed specific and often overlapping constructs that make up school climate. Many measures assess student and staff perception of school safety or student and staff relationships, while other measures assess specific constructs such as perceptions of bullying and violence or the experience of specific student populations. Due to the variations of the purpose of each measure, it became apparent that measures that assess school climate comprehensively would be valuable to school counselors seeking to measure multiple constructs that together make up a school’s climate.

**What is measured.** The measures assessed constructs of school climate from the perspective of many different participants involved in the school setting including students, school staff, and family and community members. More comprehensive measures had different forms for multiple participants while other measures focused on one participant group such as students or school staff. Numbers of items within each measure varied considerably. In general, measures for elementary aged students had fewer items than measures intended for middle or high school aged students. The number of items included on a measure was meaningful for this analysis given the time constraints of students, school counselors, and school staff during the school day.

**Technical adequacy.** A foundational characteristic of the selected measures for this analysis was the extent to which indicators of reliability and validity were available. For many measures, psychometric data were not easily accessible or not published in the documents or
resources in which the measures were described. In cases where the reliability and validity of a measure was published or easily accessible, the technical adequacy of selected measures varied, but was generally acceptable (e.g., most reported internal consistency estimates ranged from the .60s to .90s).

**Availability of School Climate Measures**

Due to the importance of school counselors being able to easily access the instruments as well as having the option of receiving assistance with scoring and analyzing the data, an emphasis was placed on selecting measures that were available and included scoring options. Based on our final analysis of 26 school climate measures, the following four school climate measures most accurately and completely fit our criteria for school counselors to use in elementary, middle and high schools: (a) Comprehensive School Climate Inventory (National School Climate Center, 2002), (b) School Climate Assessment Instrument (Alliance for the Study of School Climate, 2004), (c) California School Climate, Health, and Learning Survey (WestEd, 2014), and (d) Meriden School Climate Survey (Gage, Larson, & Chafouleas, 2015).

An overview of the characteristics of the selected instruments is provided in Table 3. For each measure, we describe its purpose including what it measured, format of the measure, technical adequacy, availability, and other information of relevance to selection and use including contact information and online access to each instrument. A summary description of each measure follows.

The Comprehensive School Climate Inventory (National School Climate Center, 2002) was created by the National School Climate Center and assesses safety, teaching and learning, interpersonal relationships, and needs of school. Available in four versions for elementary students, middle and high school students, parents, and staff, the CSCI takes approximately 20 minutes and includes 64 items. The CSCI is available in English or Spanish and online or paper versions. Technical adequacy of the instrument is high with an overall reliability of .94 for the elementary
version and .95 for the middle and high school version. The CSCI is available nationwide with assistance in scoring, data analysis, customized reports, and ongoing support. Pricing is based on district size, use of online or paper versions, custom options, and additional reports.

The School Climate Assessment Instrument (Alliance for the Study of School Climate, 2004) was available from the Alliance for the Study of School Climate. The SCAI measures eight constructs including: (a) appearance and physical plant, (b) faculty relations, (c) student interactions, (d) leadership/decision-making, (e) discipline environment, (f) learning environment, (g) attitude and culture, and (h) school-community relations. Available in four versions for elementary students, middle and high school students, parents, and school staff, the SCAI includes 30-79 items and takes approximately 20 minutes to complete. The SCAI is available in English or Spanish and in online or paper versions. The overall reliability is high at .97 and the subscale coefficients include a range of .73-.96. The SCAI is available nationwide and initial pricing includes set-up, support, license and service fees, scoring for online administration, data analysis, and reports. Pricing is based on school or district size and inclusion of additional options (e.g., narrative analysis, recommendations, presentations and professional development).

The California School Climate, Health, and Learning Survey (CAL-SCHLS) (WestEd, 2014) was developed by WestEd for the California Department of Education. The CAL-SCHLS consists of three surveys developed for students, school staff, and parents. The student survey, The California Healthy Kids Survey, consists of 65 items for fourth and fifth grades, 100 items for middle school, and 112 items for high school students. The California School Climate Survey includes 79 items for school staff, while The California School Parent Survey consists of 39 items. The CAL-SCHLS assesses health risks, school violence, physical health, resilience and youth development, and school climate. Each survey is available through an online database or paper versions, as well as English or Spanish versions. The parent survey is available in 25 different
languages. Another unique feature of the CAL-SCHLS is that student and staff versions are customizable to meet each school’s specific needs with core modules and supplemental modules. The surveys are recommended for use every one or two years. An evaluation of technical adequacy of the instrument reported secondary level internal consistency for Environmental Resilience Assets ranging from 0.74-0.90, and Internal Resilience Assets ranging from .73-.85. Elementary level internal consistency for Environmental Resilience Assets ranged from 0.34-0.71, and Internal Resilience Assets ranged from 0.36-0.63 (Hanson & Kim, 2007). Elementary level internal consistency is low for two subscales (i.e., meaningful participation, goals/aspirations) and those subscales are not recommended for research purposes or precise measurement in school evaluations. In another evaluation of technical adequacy at the middle school level the internal reliability consistency ranged from .68-.88 (Hanson & Voight, 2014). Secondary level internal consistency was acceptable for all subscales in both evaluations and therefore CAL-SCHLS was included in our review. The CAL-SCHLS is available nationwide with pricing options for scoring based on district size and location (i.e., within California, outside California), and include printed reports, aggregated reports and datasets for analysis, and materials to assist schools in understanding and using the data.

The Meriden School Climate Survey (MSCS) was developed by Dr. Al Larson, a research and evaluation specialist for the Meriden School District. One distinction between the MSCS and other school climate surveys is the initial goals in creating the survey were to not only create a survey to identify students with low perceptions of school climate, but to primarily provide identified students with skills to develop pro-social attitudes and healthy coping skills. The 47-item student version for grades 3-12 of the MSCS evaluates (a) adult support at school, (b) school safety, (c) respect for differences, (d) adult support at home, (e) academic support at home, (f) aggression toward others, and (g) peer support. A unique feature of the student survey is that it includes a confidential agreement in lieu of anonymous responses. Students are notified that all answers are
confidential unless someone is in danger or will be hurt. For responses that are dangerous (e.g., responds to “feeling bullied” or “how often you get hit or threatened” as very often or always, reports a situation where someone will get hurt) a trigger email is sent to designated school personnel (e.g., school counselor, school psychologist, and/or administrator) to alert them to the issue. The school personnel are then able to address the situation in a timely manner. MSCS is conducted in the fall and spring of each year, is available in English, Spanish, and Arabic, and also includes parent and staff versions. Gage et al., (2015) conducted technical adequacy evaluations on the student version. Analyses of the results indicated reliability within the acceptable range with a full-scale reliability score of .91 and subscale reliability scores ranging from .69-.90. Statistical significance was found for test-retest correlational coefficients \((p < .000)\), but correlational coefficients were small to moderate, indicating a need for more research. Pricing for standard set up costs range from $2,500-$5,000 and includes survey branding for districts, student user set up, staff user set up with access to data and trigger emails, integration of student database, scoring, and reports.

After comparing and contrasting these instruments, it was found that all four measures assess interpersonal relationships and safety/environment of the school. Additionally, the CAL-SCHLS assesses health risks, physical health, and resilience and youth development. The CSCI also includes an assessment of teaching and learning, and the needs of the school, while the SCAI includes assessments of appearance and physical plant, leadership and decision-making, discipline and learning environments, attitude and culture, and school-community relations. The MSCS also includes assessments on support at home and academic support at home. The four instruments are available in online or paper formats for students, staff, and parents. The MSCS is the shortest survey with 47 items and takes approximately 15 minutes to complete. The CSCI and SCAI are similar in size (64 items and 30-79 items respectively) and take approximately 20 minutes to complete. The
CAL-SCHLS format vary in size with 65 items for elementary students, 100 items for middle school, 112 items for high school, 79 items for staff, and 30 items for parents. All three instruments include an English and Spanish version of the survey, but the CAL-SCHLS provides a paper version of the parent survey in 25 different languages, while the MSCS was also translated into Arabic. Technical adequacy was high for reliability on the CSCI and SCAI (i.e., range of .94-.97) as well as the CAL-SCHLS (i.e., range of .60-.90 for scores on 15 of 17 assessment scales) and MSCS (i.e., range of .69-.91).

Cost and availability of resources differ across all four measures. The CSCI includes a sliding cost scale based on the number of schools involved, custom scoring options, additional reporting (e.g., aggregate-level, district level, executive summaries), and online versus paper format (paper costs $1.75 more per survey). The cost also covers other services including data analysis of survey results; customized reports; online links for parents, students, and staff; and ongoing support.

Cost of the SCAI varies depending on the size of the school or district (e.g., $300-$1000 per school, $900-$2,500 per district) and includes a site license, scoring with online administration, and electronic service fee. Services also include set up and support, and data analysis. Additional services can be added for narrative analysis, recommendations, presentations and professional development.

The CAL-SCHLS also uses a sliding scale for pricing based on the size of the district and survey options. Services include access to all the materials developed to help schools understand how to use the data, a printed report for each survey, and three aggregated reports and datasets for analysis. An extra CAL-SCHLS feature is the ability to customize student and staff surveys.

The MSCS includes a one time set-up fee of $2,500-$5,000. Services include survey branding for the district, setting up user accounts for students and staff, setting up survey taker tracking and trigger emails for staff accounts (e.g., school counselors, school psychologists, administrators), integrating student data systems, and generating automated reports based on online scoring.
Discussion

Research and professional wisdom have promoted the usefulness of school climate as a feature of safe and effective schools: “Research shows that a positive school climate directly impacts telling indicators for success such as higher student achievement, lower dropout rates, decreased incidences of violence, and increased teacher retention” (National School Climate Center, 2014). The belief that “no student or adult should feel unsafe or unable to focus in school” and the high costs associated with “exclusionary discipline practices, which disproportionately impact students of color and students with disabilities” are among reasons for continuing and renewed interest in school counselors taking “…deliberate steps to create the positive school climates that can help prevent and change inappropriate behaviors” (Duncan, 2014, p. i, ii). In this context, school counselors and the education professionals they collaborate with to ensure students academic, personal/social, and career success need to understand what school climate is and how to measure it; they also need a systematic plan for monitoring and using indicators in much the same way as academic and social markers for students are valued and used.

In a recent article, Thapa et al. (2013) reported the results of an integrated review of school climate research. Consistent with Anderson’s (1982) and Freiberg’s (1999) earlier work, they concluded that defining school climate has been complicated and remains unresolved and that the measurement of school climate “…initially be conducted with the use of reliable and valid surveys and observational measures that assess how students, parents/guardians, school personnel, and community members perceive school life…” (p. 371). Focused more on “…how school climate research can contribute to the development of smarter policies,” they did not offer or provide guidance for school personnel needing information about measures for assessing school climate effectively and efficiently. This information is also not available in the compendium of school climate surveys, assessments, and scales maintained by The National Center on Safe Supportive

In our review, we documented core features of accepted definitions of school climate; we reviewed evidence supporting relationships between school climate and important outcomes of particular interest to school counselors; and, we summarized how information about school climate is typically collected. We also documented key characteristics (e.g., psychometric features, costs, availability) of selected school climate measures. We reasoned that our work provided answers to key questions facing school counselors charged with measuring school climate that have not been addressed in previous research. We also reasoned that our study had implications that provide a starting point for the improvement of both practice and research.

Implications for Practice and Future Research

Our review produced a practical resource for school counselors to use when determining an appropriate school climate measure for their setting. Due to the vast amount of literature and measures available through library database and Internet searches, it is highly unlikely that school counselors have the time or resources to conduct such a thorough search and analysis. Without the time and resources, school counselors may otherwise rely on ill-defined constructs and limited measures or measures that lack the technical adequacy needed for reasoned implementation of change. Considering the call for school counselors to use data to measure the impact school counseling programs have on student outcomes, school climate data can be used as one form of assessment to determine program implementation effectiveness (Sherrod, Getch, & Ziomek-Diagle, 2009). As indicated by the U. S. Department of Education (2014a), schools must purposefully attempt to create positive school environments by providing opportunities for feedback from students, staff, parents, and other key stakeholders. These federal guidelines promote assessing school climate; therefore it is prudent that school counselors and the school personnel they collaborate with have efficient access to fundamental knowledge about school climate and
School counselors may find the following questions useful when searching for an appropriate school climate measure and its potential use:

1. What aspects of school climate are we interested in and what is the best indicator of those aspects?
2. Whose perspective do we want to assess (e.g., students, school staff, parents, community) and who will collect, analyze, and summarize the “data”?
3. What usability characteristics (e.g., time to administer, frequency of use, format of assessment, language needs, technical adequacy) of a school climate measure are most important to document?
4. What resources will we need to administer the school climate measures (e.g., amount of funding, support provided by authors, administration, scoring, and reporting considerations)?
5. How will the results be used to positively impact the school and who will be responsible for making this happen?

In the era of evidence-based decision making, rather than arbitrarily choosing a school climate measure from the Internet or continuing to administer a measure simply because it has been used in the past, school counselors may use these guiding questions to consider both the adequacy of a school climate measure as well as the logistical considerations involved in administering and interpreting the results. Engaging in this process should help school counselors identify a school climate measure that best suits their needs.

School counselors interested in taking action to improve school climate would benefit from following three guidelines: (a) focus on prevention by building positive school climates, (b) create clear expectations and ensure that consequences for all problem behaviors are systematized, and (c)

School counselors would also benefit from the continued development of comprehensive school climate measures that are easily accessible and technically sound. Our analysis resulted in three measures that met the proposed criteria. Additional measures that are equally strong would provide further options for school counselors. Future research should focus on exploring how school counselors measure school climate and, importantly, how school counselors use these data to improve school climate. By understanding the process school counselors use to assess school climate, researchers may gain insight into the supports school counselors need to select a measure, interpret measure results, and make adjustments to relevant practices that play a critical role in the climate of the setting. Future research may also focus on recurring measurement of school climate that can monitor the effects of practices put in place to address dimensions of school climate in need of improvement. Identifying how measures are used and what school counselors are doing to improve school climate over time can benefit all school counselors engaged in this important work.

Limitations

We acknowledge that there are other local and state-mandated measures available for monitoring safety and school health issues that may negatively impact student achievement and school climate. For example, the Delaware School Climate Survey (DSCS) (Delaware Department of Education, 2013) was developed by staff from the Delaware Positive Behavior Support Project and faculty partners from the University of Delaware College of Education.
(http://wordpress.oet.udel.edu/pbs/school-climate/de-school-climate-survey/) and is offered to schools statewide. The DSCS is currently unavailable to schools outside Delaware, limiting the availability of this measure to other states.

Similarly, the Georgia Department of Education (GaDOE) collects and analyses school climate data through its annual statewide administration of the Georgia Student Health Survey II (GSHS II) (Georgia Department of Education, 2014), which includes items related to school climate and safety, graduation, school dropouts, alcohol and drug use, bullying and harassment, suicide, nutrition, sedentary behaviors, and teen driving laws. The survey is offered at no cost and provides Georgia public school districts (and private schools that wish to participate) with a measurement system to satisfy all requirements of No Child Left Behind (NCLB). While the survey questions are available online (http://www.gadoe.org/Curriculum-Instruction-and-Assessment/Curriculum-and-Instruction/GSHS-II/Pages/Georgia-Student-Health-Survey-II.aspx), the GaDOE does not administer the survey for schools outside of Georgia and requests notification before using it.

In addition, the California School Climate and Safety Survey (CSCSS) (Furlong & Morrison, 2006) is a researched and reliable measure of school climate. Originally developed by the California State Department of Education in 1989 as a needs assessment, the CSCSS evolved to include short-form and progress-monitoring assessments based on the work of Michael Furlong and colleagues. The CSCSS measures constructs including: (a) school environment, (b) student-teacher relationships, (c) student-student relationships, (d) crime/safety, and (e) general student background. CSCSS short form internal consistency reliability estimates range from .79-.87 for danger, .77-84 for safety, .78-89 for climate, and .65-84 for victimization. Currently, the CSCSS is not easily available for schools and no information was obtained about costs for this measure. Sample forms are available online (http://www.michaelfurlong.info/CSCSS/ccss-forms/), but schools are required to score and analyze their own results.
While we carefully reviewed and summarized what has been written about school climate, we accept the potential for bias resulting from a “file drawer problem” (cf. Rosenthal, 1979, p. 638) limiting our work; that is, because we did not find a measure of school climate, does not mean that it does not exist. Put another way, our work is grounded in the outcomes of the approach we took to define, relate, value information about school climate and how to measure it. We accept that more knowledge may be available, but we believe what we have found has value for school counselors called upon to measure school climate in efforts to improve academic and personal/social outcomes for all students and working conditions for school staff.

Conclusion

Educators have studied and supported the importance of school climate for more than one hundred years (Center for Social and Emotional Education and the Education Commission of the States, n.d.; Cohen et al., 2009; Cohen, n.d.; Perry, 1908). In this article, we provide guidance for school counselors interested in evaluating the quality and character of school life by sharing definitions and core features of school climate that are aligned with recent research, by reviewing correlates of school climate that support the importance of it to school counselors, and by documenting core features of four scientifically-sound and comprehensive measures of school climate. This review and analysis offers support for bridging a potential research-to-practice gap by providing a resource for school counselors in need of reliable and available assessments for measuring and monitoring school climate.
References


Bradshaw, C., Koth, C., Thornton, L., & Leaf, P. (2009). Altering school climate through school-
wide positive behavioral interventions and supports: Findings from a group-randomized
effectiveness trial. *Prevention Science, 10,* 100-115.


improvement and reform: Development and validation of a school-level assessment of
climate, cultural pluralism, and school safety. *Journal of Educational Psychology, 95,* 570-588.

evaluating well-being in the middle school setting. *Journal of School Counseling, 8*(8).


Brookover, W. B., Schweitzer, J. H., Schneider, J. M., Beady, C. H., Flood, P. K., & Wisenbaker, J.

Counseling, 12*(6), 450-457.

involvement: School, school counselor, and training factors. *Professional School Counseling, 14*(1), 75-86.


Sage Foundation Publications.


Loukas, A., Suzuki, R., & Horton, K. D. (2006). Examining school connectedness as a mediator of


school counselors. *Journal of School Counseling, 5*(14).


Schulz, L. L. (2011). Targeting school factors that contribute to youth alienation: Focused school
counseling programs. *Journal of Instructional Psychology, 38*(2), 75-83.


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Table 1

**School Climate Definitions**

<table>
<thead>
<tr>
<th>Source</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Clifford et al., 2012</td>
<td>We define climate as the quality and the characteristics of school life, which includes the availability of supports for teaching and learning. It includes goals, values, interpersonal relationships, formal organizational structures, and organizational practices. (p. 3)</td>
</tr>
<tr>
<td>Cohen et al., 2009</td>
<td>We suggest that school climate refers to the quality and character of school life. (p. 182)</td>
</tr>
<tr>
<td>Developmental Studies Center (DSC)</td>
<td>DSC defined “school climate as the sense of school as a community. This sense is operationalized as ‘the quality of social relationships among school members’ (Roberts, Hom, &amp; Battistich, 1995, p. 2) (Ding, Liu, &amp; Berkowitz, 2011, p. 243, emphasis in original).</td>
</tr>
<tr>
<td>National School Climate Center (2014)</td>
<td>School climate refers to the quality and character of school life. School climate is based on patterns of students', parents' and school personnel's experience of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures.</td>
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</table>

http://www.schoolclimate.org/climate/ (table continues)
School climate is based on patterns of people’s experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures. A sustainable, positive school climate fosters youth development and learning necessary for a productive, contributive, and satisfying life in a democratic society. This climate includes norms, values, and expectations that support people feeling socially, emotionally and physically safe. People are engaged and respected. Students, families and educators work together to develop, live, and contribute to a shared school vision. Educators model and nurture an attitude that emphasizes the benefits of, and satisfaction from, learning. Each person contributes to the operations of the school as well as the care of the physical environment. (p. 5)

We suggest that the definition of school climate and positive school climate developed by the National School Climate Council (2007)… may be good starting points, buttressed by this review that used the four areas of school climate they defined. (p. 371)
Table 2

School Climate Dimensions and Example Items used to Measure Them

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Example Item</th>
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<tbody>
<tr>
<td>Safety</td>
<td>▪ To what extent do you believe you are safe at this school?</td>
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<tr>
<td></td>
<td>▪ Bullying and fighting are not accepted at this school.</td>
</tr>
<tr>
<td>Teaching and Learning</td>
<td>▪ To what extent do you believe you are learning at this school?</td>
</tr>
<tr>
<td></td>
<td>▪ Teachers expect students to learn at this school.</td>
</tr>
<tr>
<td>Relationships</td>
<td>▪ To what extent do you believe people care about you at this school?</td>
</tr>
<tr>
<td></td>
<td>▪ Parents participate in decision making at this school.</td>
</tr>
<tr>
<td>Environmental Structure</td>
<td>▪ To what extent do you believe this school is clean?</td>
</tr>
<tr>
<td></td>
<td>▪ Learning materials and resources at this school are adequate.</td>
</tr>
<tr>
<td>Instrument</td>
<td>Purpose</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The Comprehensive School Climate Inventory</td>
<td>To assess (a) safety, (b) teaching and learning, (c) interpersonal relationships, and (d) needs of school.</td>
</tr>
<tr>
<td>The School Climate Assessment Instrument</td>
<td>To assess (a) appearance and physical plant, (b) faculty relations, (c) student interactions, (d)</td>
</tr>
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Contact information:
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<tr>
<th>School Climate, 2004) From the Alliance for the Study of School Climate (ASSC)</th>
<th>Includes 30-79 items, takes approximately 20 minutes to complete. Available in online or paper versions. Available in English or Spanish.</th>
<th>include set up and support, site license fee, electronic service fee, data analysis, reports. Additional costs for narrative analysis, recommendations, presentations and professional development. Scoring included with online administration.</th>
<th>John Shindler, Professor California State University Los Angeles, Director, Alliance for the Study of School Climate <a href="mailto:jshindl@calstatela.edumailto">jshindl@calstatela.edumailto</a>:<a href="mailto:jshindl@calstatela.edu">jshindl@calstatela.edu</a></th>
</tr>
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</table>
| California School Climate, Health, and Learning Survey (CAL-SCHLS) (WestEd, 2014) Developed by WestEd for the California Department of Education | To assess (a) health risks (e.g., alcohol, tobacco and other drug use); (b) school violence, (c) physical health, (d) resilience and youth development, and (e) school climate. Available in three versions: The California Healthy Kids Survey (CHKS: Elementary Version E18-65 items, Middle Version M18-100 items, High Version H18 school-112 items). The California School Climate Survey (CSCS: School Personnel Staff Version 18-79 items). The California | Secondary level internal consistency for Environmental resilience assets range from 0.74-0.90, Internal resilience assets range from .73-.85. Elementary level internal consistency for Environmental resilience assets range from 0.34-0.71, and Internal resilience assets range from 0.36-0.63. | Available nationwide. Cost varies depending on size of district and survey options. Pricing includes a printed report for each survey, three aggregated reports and datasets for analysis, and access to all the materials developed to help schools understand and use the data. For more information on pricing visit: http://csps.wested.org/resources/CalSCHLS-infoandfees.pdf | For more information: http://cal-schls.wested.org Customizable student
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<tr>
<td>Meriden School Climate Survey-Student Version To assess (a) adult support at school, (b) school safety, (c) respect for differences, (d) adult support at home, (e) academic support at home, (f) aggression toward others, and (g) peer support Includes 47 items, for grades 3-12, takes approximately 15 minutes to complete. Survey taker tracking included with trigger emails to school counselors and school psychologists for answers indicating danger. Available in online or paper versions. Only the online version includes survey taker</td>
<td>Full scale reliability score .91. Subscale reliability ranges from .69 to .90. Standard set up costs range from $2,500-$5,000. Set up includes survey branding for districts, user set up, and integration of student database.</td>
</tr>
<tr>
<td>For more information: <a href="http://www.shankerinstitute.org/blog/new-school-climate-tool-facilitates-early-intervention-social-emotional-issues-bullying-and">http://www.shankerinstitute.org/blog/new-school-climate-tool-facilitates-early-intervention-social-emotional-issues-bullying-and</a></td>
<td>Contact Dr. Al Larson <a href="mailto:al.larson@meridenk12.org">al.larson@meridenk12.org</a> for more information regarding the MSCS. Interested LEAs contact Lori O’Brien <a href="mailto:lori@websolutions.com">lori@websolutions.com</a> 203-235-7777 x15 for further information.</td>
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tracking.
Completed during fall (September 1-
October 11) and
spring (April 22-
June 15) of each
school year.
Written at 3.9
grade level.
Available in
English, Spanish,
and Arabic.