ABSTRACT

ANALYSIS OF THE COLLABORATIVE FOR ACADEMIC, SOCIAL AND EMOTIONAL
LEARNING (CASEL) STUDENT NEEDS ASSESSMENT USING THE THEORY AND
FACTORS OF SCHOOL CONNECTEDNESS

by Elizabeth McComb

This paper examines the existing literature on school connectedness and establishes the most
commonly identified factors, which were then used to analyze the internal reliability of the
CASEL Student Needs Assessment. School climate factors and theory are also compared and
explored as they relate to the CASEL measure. Internal reliability was measured using
Cronbach's alpha for both the school climate subscales as well as the school connectedness
constructs. Correlations between the seven identified school connectedness constructs were also
assessed. Finally, a factor analysis was completed on the CASEL measure. No significant
differences in reliability were found using either school climate factors or school connectedness
constructs. Additionally, the correlation matrix and the factor analysis confirm the notion of one
overall construct, as opposed to seven independent constructs. Theoretical implications of this
and subsequent research are explored.

ANALYSIS OF THE COLLABORATIVE FOR ACADEMIC, SOCIAL AND EMOTIONAL
LEARNING (CASEL) STUDENT NEEDS ASSESSMENT USING THE THEORY AND
FACTORS OF SCHOOL CONNECTEDNESS

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Introduction

For many years, school connectedness and its related concepts have been studied. School connectedness has been identified in many ways: school climate, student attachment to school, student engagement, and school bonding, but the ideas within these concepts remain the same. Essentially, school connectedness refers to an educational environment in which students believe that adults and peers in the school care about their learning and about them as individuals (Blum, 2005; Centers for Disease Control and Prevention, 2009). However, there is disagreement among researchers about the specific factors that encompass school connectedness.

This study first examines the existing literature and establishes the most commonly identified factors of school connectedness. The resulting aim of this study will be to analyze the internal consistency of an existing student needs assessment using the identified factors related to school connectedness. This paper will also describe the importance of understanding school connectedness and the outcomes associated with it, as well as the current methods used to measure it. Finally, a brief overview of the specific shared factors between the associated terms, including school climate, student attachment to school, student engagement and school bonding are provided.

Review of the Literature

Introduction to school connectedness

School connectedness is a term that is commonly used to describe a student's belonging and attachment to school. Researchers are in agreement concerning the many positive outcomes associated with higher levels of school connectedness (Blum, 2005; CDC, 2009; McNeely, Nonnemaker & Blum, 2002; Resnick, 1997). However, there is considerable debate among researchers regarding the specific constructs that comprise school connectedness, as well as how to most effectively measure it. The following section will provide background and explore each of these components of school connectedness more specifically.

Defining school connectedness

During the last decade, school connectedness has increasingly been identified as an important factor in reducing the likelihood that adolescents will engage in health-compromising behaviors (Blum, 2005). In the past, the research base has been rather broad and encompassed many related concepts. Research articles often offered vague, non-specific aspects of school

connectedness, such as "adolescents feeling cared for by the people at their school" or "adolescents feeling like a part of their school" (McNeely, Nonnemaker, & Blum, 2002). In other instances, researchers identified constructs within school connectedness, such as liking school or active engagement in school activities, but failed to offer a clear definition for the concept as a whole (Thompson, Iachan, Overpeck, Ross, & Gross, 2006). Because of the vagueness and confusion surrounding the definition, the Wingspread Declaration on School Connections was developed in 2004. This document was based on a detailed review of the existing research and on discussions among leaders in the health and education fields. The Wingspread Declaration defines school connectedness, identifies numerous outcomes related to school connectedness, and identifies possible strategies for increasing school connectedness. This document defines school connectedness as "the belief by students that adults in the school care about their learning as well as about them as individuals." With a more solid base for further research, studies and analyses related to school connectedness have increased dramatically in the past six years. The Wingspread Declaration has proven to be an influential review in terms of our collective knowledge related to school connectedness because it was the first clearly delineated definition and because it was developed with valuable input from leaders in the health and education fields.

Although the Wingspread definition is widely accepted, the Centers for Disease Control and Prevention (2009) added peer influence as a facet of the school connectedness definition. Research has indicated that individual students' feelings of being connected to school are influenced by their peers as well as by adults (Resnick, 1997).

Factors of school connectedness

Many of the studies related to school connectedness have identified a number of factors that comprise school connectedness. However, the factors that have been identified by different authors vary somewhat. An important element in the literature review is to examine how these factors are defined and determine the similarities and differences between them. Appendix A represents an overview of several influential research articles on school connectedness and the specific factors that were included in the overall measurement.

Goodenow and Grady (1993) studied the relationship between school belonging and academic motivation. The researchers assessed school belonging using the Psychological Sense of School Membership Scale (PSSM). The PSSM includes items that measure perceived liking, personal acceptance, and inclusion (e.g., "Most teachers at this school are interested in me," "I

feel like a real part of this school") as well as respect and encouragement for participation (e.g. "Other students in this school take my opinion seriously"). These identified factors: liking, acceptance, inclusion, respect, and encouragement for participation are similar to those specified in another early school connectedness study by Voelkl (1996). Voelkl used the Identification with School Questionnaire, which included both items that reflected feelings of belongingness in school (e.g., "I feel proud of being a part of my school,") as well as items that reflected feelings of valuing school and school-related outcomes (e.g. "School is more important than most people think," "Most of the things we learn in class are useless"). In all, constructs that were indicated in Voelkl's study included academic engagement, likes school, extracurricular activities, and teacher support.

In 1997, Resnick, Bearman, & Blum, et al. conducted a study to identify risk and protective factors in the family, school, and individual as they relate to emotional health, violence, substance use, and sexuality. The study included a cross-sectional analysis of interview data from a total of 12,118 adolescents drawn from an initial school survey of 90,118 students. Since then, it has been one of the most cited publications in the area of school connectedness. In this case, the researchers identified five factors within the concept of school connectedness: belonging, discipline and fairness, likes school, safety, and teacher support (Libbey, 2004). The study describes specific items used in the survey including: "Feel that teachers treat students fairly," "Close to people at school," and "Feel part of your school." Similarly, Brown & Evans (2002) identified several of the same factors as previously noted, but was one of the first studies to include peer relations as a salient factor.

Finally, one of the most recent major publications in school connectedness research was conducted by the Centers for Disease Control and Prevention (2009). The article frequently cites the Wingspread Declaration, but also seeks to contribute further to the knowledge base, particularly in the area of specific strategies to promote school connectedness. Because the CDC study uses the Wingspread Declaration as the basis for further research, the definition and factors of school connectedness are similar between the documents. Both include high academic standards, adult/teacher support, and a safe school environment (Wingspread Declaration, 2005). However, as stated previously, the CDC included peer relationships as a factor of school connectedness. Previous research has indicated that students who report feeling most connected

to school also report having the most friends at school and having friends from diverse social groups, and the opposite is also true (Blum, McNeely, & Rinehart, 2002).

Based on the evaluation of these salient research articles, the following factors emerged most often, and will be used for the purposes of this study: academic engagement, adult support, belonging, discipline and fairness, student voice, peer relations, and safety.

Outcomes related to school connectedness

In the past, efforts to improve child and adolescent health have typically included interventions designed to address specific health risk behaviors, such as drug and alcohol use and violence. Conversely, a growing number of studies suggest that enhancing protective factors may lead to a greater health impact (Centers for Disease Control and Prevention, 2009). Protective factors are individual or environmental characteristics, conditions, or behaviors that, when present, increase the health and well-being of individuals. Protective factors can reduce the effects of stressful life events, and can also increase an individual's ability to avoid risks. School connectedness has been shown to be a particularly promising protective factor for students.

As noted previously, The National Longitudinal Study of Adolescent Health examined the impact of numerous protective factors on adolescent health and wellness among more than 12,000 students (Resnick, Bearman, & Blum, 2007). This study found that numerous factors including school connectedness, parent-family connectedness, high parental expectations, and others were protective against a range of adverse behaviors. School connectedness was found to be the strongest protective factor for both boys and girls to decrease substance use, absenteeism, violence, and early sexual introduction (Centers for Disease Control and Prevention, 2009). Also, the study found that students who feel connected to school are more likely to succeed academically and graduate (Wentzel, 1998). Later studies confirmed these findings, and also found additional outcomes related to school connectedness. The Wingspread Declaration (2005) cited research that higher levels of school connectedness are associated with decreased substance use, violence, and risk of becoming pregnant, as well as higher overall academic success, motivation, classroom engagement, and school completion rates (Goodenow, 1993; Lonczak, et al., 2002). More recently, higher levels of school connectedness has been associated with decreased depressive and anxiety symptoms, and increased levels of hope and life satisfaction (Shochet, et al., 2006; You, et al., 2008). Appendix B presents an overview of major research on school connectedness and related outcomes.

Measuring school connectedness

Over the past twenty years, school connectedness and related concepts have been measured in a variety of ways. However, many specific items and overall themes are recurring and focus on the researcher's identified factors. Generally, school connectedness has been measured concurrently with other outcomes and the number of items within each measure varies.

Goodenow & Grady (1993) assessed school belonging using the Psychological Sense of School Membership Scale (PSSM), which is an 18-item scale developed for use specifically with early and mid-adolescent students. The PSSM measures perceived liking, personal acceptance, inclusion, respect, and encouragement for participation. Items on the PSSM contain a 5-point Likert scale format, with choices ranging from *not at all true* (1) to *completely true* (5). Internal consistency reliability (Cronbach's alpha) for the sample was .80. Three years later, the Identification with School Questionnaire was developed (Voelkl, 1996). The measure consisted of 17 items to be rated by individual students, three of which were adopted and modified from the PSSM. Ten of the items reflected feelings of belongingness in school (e.g., "I feel proud of being a part of my school"; "School is one of my favorite places to be"). The remaining items reflected feelings of valuing school and school-related outcomes (e.g., "School is more important than most people think"; "I can get a good job even if my grades are bad"). As with the PSSM, the Identification with School Questionnaire used a Likert scale format, but contained responses that ranged from *strongly agree* (1) to *strongly disagree* (4). Internal consistency reliability for the scale was .84.

The School Connectedness Scale (SCS; Resnick et al., 1997) uses questions included in the Add Health longitudinal study questionnaire (You et al., 2008). As stated previously, this study is often cited in school connectedness research because of the large and longitudinal data set which provides invaluable information to researchers and practitioners. School connectedness levels were measured based on responses to five items: "I feel close to people at my school," "I feel like I am a part of my school," "I am happy to be at my school," "The teachers at my school treat students fairly," and "I feel safe at my school." Response options for each statement used a five-point, Likert-type scale ranging from "strongly agree" to "strongly disagree". The School Connectedness Scale's internal consistency was .79. The School Connectedness Scale has been utilized a great deal in school connectedness research (McNeely et al., 2002; Thompson et al., 2006; Jacobson & Rowe, 1999).

Related concepts

Because there has been some confusion regarding the definition of school connectedness and how it differs from other measures of student attachment to school, it is important to briefly discuss school connectedness and the various related concepts. Researchers have used a variety of terms and methods to measure student attachment and being a part of school (Libbey, 2004). In the past, researchers have failed to agree on the factors that constitute school connectedness. Further compounding the issue, a student's connectedness to school has been referred to as "school attachment," "school bonding," "school climate," and various other names (Blum, 2005). Libbey recognized this issue and sought to identify the various terms, constructs, and instruments used to measure a student's connection to school by reviewing 21 studies, each of which used different measurement tools and terms. Terms were chosen based on the similarity to the term connectedness, or a comparable definition to that of school connectedness. Based on her review, Libbey identified nine salient constructs related to school connectedness. These include: 1) academic engagement, 2) belonging, 3) discipline/fairness, 4) extracurricular activities, 5) likes school, 6) student voice, 7) peer relations, 8) safety, and 9) teacher support. For the purposes of this study, extracurricular activities will be dropped from the analyses. This was determined due to the fact that many significant researchers in the area of school connectedness identify extracurricular activities as a separate construct—as opposed to a component of school connectedness (Brown & Evans, 2002; Blum, 2005; CDC, 2009).

Statement of Purpose and Hypotheses of the Current Study

The aim of this study is to evaluate an existing student needs assessment (Collaborative for Academic, Social, and Emotional Learning Student Needs Assessment, CASEL, 2006) that currently has no published psychometric data. Because the CASEL items are such an integral and central part of the overall student needs assessment that is utilized in the current initiative, it is important to determine the level of internal consistency. It is hypothesized that, when using the ten subscales identified by CASEL Student Needs Assessment publishers (see above), lower levels of reliability will be produced. This hypothesis is based on the fact that the identified subscales do not appear to be tied to theory, as well as the fact that no psychometric data were previously published. Because the seven identified constructs related to school connectedness are closely tied to theory, it is predicted that higher levels of internal consistency will be produced.

Additionally, it is predicted that there will be a low degree of correlation among the seven identified school connectedness constructs.

Method

Participants

This study used an archival data set from fifteen schools in the greater Cincinnati, OH area. Each school is working in collaboration with the Health Foundation of Greater Cincinnati (HFGC) through the *Evidence-Based Practices for School-Wide Prevention Programs* initiative, a six-year project designed to implement, evaluate, and sustain appropriate evidence-based programs within elementary and middle schools in the Tri-State area. The schools were selected to participate in the initiative based on demonstrated need and readiness to engage in the implementation of a prevention program. The population is ethnically and economically diverse. According to the Ohio Department of Education database, approximately 48% of student participants receive free/reduced lunch. In total, 4043 students (49% male, 49% female; 63% White-Not Hispanic, 16% Black/African American, 3% American Indian or Alaska Native, 10% Other) completed surveys for the current study. Student demographics are presented in Appendix C.

Measures

School Climate/School Connectedness: To assess student perceptions of school climate/connectedness, the CASEL Student Needs Assessment (CASEL, 2003) was administered to children in grades 3-8. The CASEL measure includes 76 items that measure both constructs related to student skills and constructs related to school climate. When designing the overall CASEL measure, publishers included numerous subscales and identified the items associated with each subscale. For the purposes of this study, ten subscales from the CASEL Student Needs Assessment will be assessed, based on the relatedness to school connectedness concepts. These subscales include: classroom social climate-peer relationships, general school climate, discipline-clear rules, discipline-disruptive behaviors, fair treatment, safety, bullying, student involvement in decision-making, high expectations, and care and support. An overview of each of the subscales and sample items is shown in Appendix D.

To determine whether aligning the items based on school connectedness theory creates higher levels of internal consistency, the constructs identified previously were utilized. However,

for the purposes of this study, the construct "likes school" was dropped, due to the fact that there was only one item in the CASEL measure pertaining to that construct. The seven remaining constructs include: academic engagement, belonging, discipline/fairness, student voice, peer relations, safety, and teacher support. An overview of each of the constructs and sample items is presented in Appendix E.

Procedures

Each selected school chose a date to administer the surveys school-wide. Schools chose to designate test administrators (e.g., teachers, the school psychologist, the school nurse, etc.) to enter into each classroom to ensure that the surveys were uniformly administered to the students. In some cases the test administrators, whether classroom teachers or designated officials, decided to read each survey item aloud as the students completed the Likert scales. Because some third graders may have had a difficult time reading and responding to each item in a timely manner, reading the questions aloud was deemed to be a viable and efficient option for administrators.

After each school completed surveying all of the students and staff, the completed surveys were returned to Miami University's technical support team. The data from each survey were entered by graduate and undergraduate students and can were organized at the individual, classroom, grade, and school levels.

Analyses

Levels of internal reliability were determined using Cronbach's alpha for both the school climate subscales as well as the school connectedness constructs. Additionally, correlations between the seven identified school connectedness constructs were assessed using a correlation matrix. Finally, a factor analysis was performed to determine the number of components extracted from the CASEL Student Needs Assessment.

Results

Chronbach's alpha levels were assessed for the ten identified school climate factors as well as the seven identified school connectedness constructs. Table 1 presents an overview of the results. Alpha values for the school climate factors ranged from .405 to .813, suggesting that the items in each factor were at least moderately related to one another. Alpha values for the school connectedness constructs had less variability and ranged from .538 to .718.

Table 1: School Climate vs. School Connectedness Alpha values

School Climate Construct	Alpha value	School Connectedness Construct	Alpha value
Classroom Social Climate (Peer relationships) n=4	.615	Academic Engagement n=4	.639
School Climate n=4	.534	Belonging n=5	.597
Discipline (Clear Rules) n=4	.515	Discipline/Fairness n=7	.662
Discipline (Disruptive Behaviors) n=4	.595	Student Voice n=4	.587
Fair Treatment n=3	.673	Peer Relations n=7	.635
Safety n=4	.538	Safety n=4	.538
Bullying n=4	.405	Teacher Support n=5	.718
Student Involvement in Decision Making (Student Voice) n=3	.524		
High Expectations n=3	.594		
Care and Support n=8	.813		

It is important to consider the number of items in each identified construct—as higher numbers of items can sometimes result in higher alpha values. Within the school climate factors, care and support displayed the highest alpha value. However, this particular factor also had eight associated items, whereas many of the other factors only had three or four associated items. The number of items that fell into each school connectedness construct had less variability than the number of items in each school climate construct, and ranged from three to six.

After assessing alpha values of school climate and school connectedness constructs, the school climate factors were analyzed further. This determination was made based on the fact that levels of reliability within the school climate factors as compared to the school connectedness constructs were similar. For this reason, and because the publishers organized the items on the assessment based on the school climate factors, it was important to assess them further.

Table 2 presents the results of the correlations between the summed scores of each school climate factor. It was hypothesized that the correlations among the school climate factors would be low due to the fact that they are individual and separate parts of the overarching construct of school climate. Generally, it is expected that correlations will be lower than .35. In this case, however, many of the correlations were greater than .35. Correlations that were significant at the .05 and .01 levels were noted as such.

Table 2: Correlations between summed scores

	Peer Relations	School Climate	Discipline (Clear Rules)	Discipline (Disruptive Behaviors)	Fair Treatment	Safety	Bullying	Student Voice	High Expectations	Care & Support
PR	1	----	----	----	----	----	----	----	----	----
SC	.528**	1	----	----	----	----	----	----	----	----
D-CR	.251**	.352**	1	----	----	----	----	----	----	----
D-DB	-.384**	-.296**	-.006	1	----	----	----	----	----	----
FT	.423**	.377**	.532**	-.098**	1	----	----	----	----	----
S	.457**	.471**	.461**	-.194**	.568**	1	----	----	----	----
B	.256**	.260**	.416**	.035*	.469**	.442**	1	----	----	----
SV	.389**	.256**	.257**	-.071**	.398**	.330**	.318**	1	----	----
HE	.261**	.279**	.566**	.052**	.561**	.470**	.494**	.366**	1	----
CS	.429**	.407**	.573**	-.034*	.688**	.616**	.619**	.484**	.723**	1

*Correlation is significant at the 0.05 level
**Correlation is significant at the 0.01 level

Finally, a factor analysis was performed, with the results presented in Tables 3 & 4. The analysis determined that there were seven extracted components with one component accounting for a significant amount of the variance. Component one accounted for 25.33% of the variance, whereas components two and three accounted for 7.9% and 4.2%, respectively. Within the component matrix, items were highlighted that contained values greater than .35 in one component, while concurrently having values less than .35 in all other identified components.
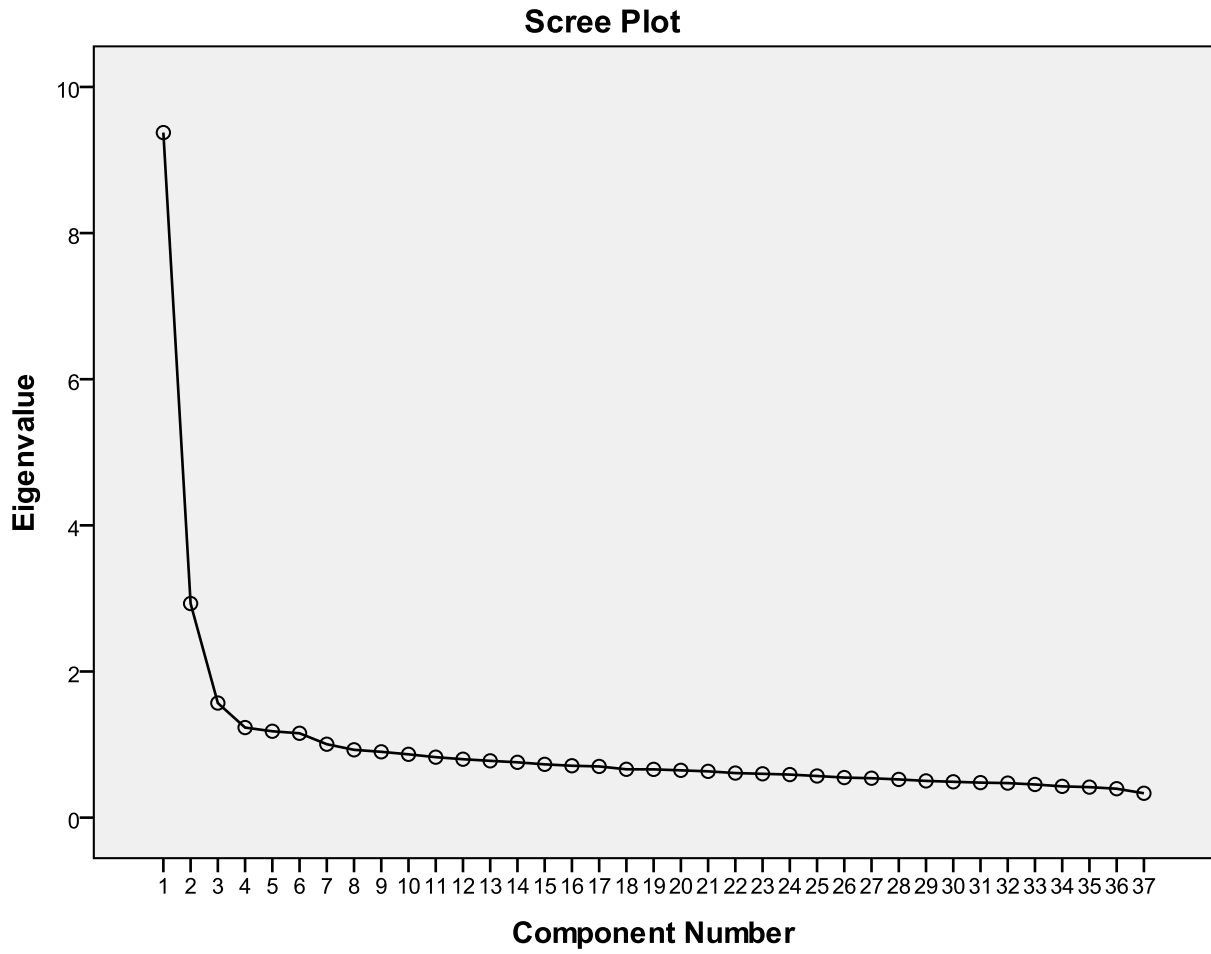
Table 3: Factor Analysis Scree Plot

Table 4: Rotated Component Matrix

Rotated Component Matrix[a]

	Component						
	1	2	3	4	5	6	7
Reverse of AC2 (9)	.030	.172	.067	.611	.103	-.172	.119
Reverse of AC7 (14)	.384	-.078	.316	.460	.077	-.100	.026
Reverse of AS5 (27)	.067	.133	-.028	.697	.015	-.060	.011
Reverse of AS9 (31)	.125	.241	-.029	.626	.010	-.117	.177
Reverse of MAS1 (38)	.111	.108	.026	.059	-.026	-.123	.738
Reverse of AC1 (8)	-.091	-.575	-.347	.011	-.031	.150	-.082
When I do a good job at school, my teacher is proud of me.	.379	-.001	.571	.146	.224	.095	.011
In my classroom, some students make it hard for the rest of the students to do their work.	.003	-.126	.097	-.272	-.011	.738	-.040
My teacher really cares about me.	.530	.003	.401	.140	.276	-.020	-.014
In my classroom, there are clear rules for how to behave.	.198	.072	.703	.043	-.042	.168	.058
Students in my classroom are kind and supportive of one another.	.176	.564	-.002	.145	.351	-.142	-.025
In my classroom, I know what will happen if I break a rule.	.206	.149	.667	-.032	-.058	.083	-.037
When I have a problem, other students in my classroom help me solve it	.302	.446	-.189	.006	.332	.003	.081
In my classroom, students are encouraged to decide things like class activities.	.116	.177	.193	.024	.593	.027	.019
In my classroom, the way some students act makes it hard for me to get my work done.	.082	-.142	.197	-.114	.064	.762	-.077
In my classroom, teachers and students decide together what the rules will be.	.087	.059	-.074	.067	.718	.080	-.030
My teacher expects me to do a good job on my school work.	.292	.010	.555	-.021	.127	.039	-.040
I feel I am treated fairly at school.	.505	.296	.222	.047	.160	-.146	.199
Students in my school treat each other with respect.	.214	.625	.045	.185	.230	-.142	.054
Adults at school listen to student ideas about how to make the school better.	.451	.116	.149	.042	.491	-.096	-.007
I feel like I am an important part of this school.	.498	.211	.059	.057	.381	-.082	.084
The teachers at this school treat students fairly.	.634	.166	.291	.072	.166	-.034	.048
I am happy to be at this school.	.616	.244	.107	.069	.119	.000	.156
Students at this school treat students who are different from them fairly.	.185	.505	.166	.279	.177	-.016	.096
I feel close to teachers and other adults at this school.	.626	.156	.090	.010	.226	.031	-.152
There is at least one adult at school whom I feel comfortable talking about problems I might have.	.462	.023	.065	-.003	.073	.048	-.168
Teachers at this school treat students from low income families fairly.	.556	.168	.197	-.076	-.038	-.043	.067

Item							
I feel safe in my school.	.608	.306	.164	.104	.046	.010	.214
Students are usually nice to each other on the bus.	.169	.595	-.042	.131	.060	-.005	.165
Is there an adult who will help you if you have a problem in the cafeteria, the hallways, or on the playground?	.637	.137	.113	.120	.019	.101	.008
Do teachers and other adults at school care about you?	.748	.128	.153	.104	.111	.010	.095
In the cafeteria, do students follow the rules?	.266	.539	.079	.115	-.116	-.034	-.045
Do teachers and other adults at school listen when you have something to say?	.632	.175	.138	.201	.075	.004	.003
Do teachers and other adults at school believe that you can do a good job?	.685	.119	.138	.092	.012	.069	.101
When students see another student being picked on, do they try to stop it?	.319	.395	.012	.334	.024	.256	-.099
I feel bad when someone's feelings get hurt.	.473	.193	.027	.143	-.039	.187	-.395
This year at school, have you been bullied, teased, or made fun of in class?	-.050	-.139	.021	-.241	-.021	-.053	-.671

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
a.   Rotation converged in 7 iterations.
b.   Items with correlations (>.35) in only one component are highlighted.

General Impressions

It was hypothesized that higher levels of internal consistency would be produced when using school connectedness constructs as opposed to school climate factors. This was based on the fact that the school connectedness constructs were derived from school connectedness theory, whereas the school climate factors were determined to have face value reliability. However, there was no significant difference in reliability between using school climate factors or school connectedness constructs. The analysis of the data suggests that how one organizes the items has no significant effect on the outcomes.

It was also hypothesized that the correlations between each factor would be low, thus suggesting that each factor is unique and independent. Overall, correlations were determined to be mostly moderate in strength. This is important to consider because it suggests that factors are not truly independent of one another, and are part of a larger, overarching factor. Additionally, when the publishers determined which items fell into which factor, they included several items in more than one factor, which further suggests that the factors are not independent of one another. For example, the item "When I do a good job a school, my teacher is proud of me" was included

in both high expectations and care and support. Also, the item "Is there an adult who will help you if you have a problem in the cafeteria, the hallways, or on the playground" was included in both safety and bullying. Again, this may be important to consider when looking at factors independently.

A factor analysis was completed to determine the number of factors that were identified in the data, and to determine how individual items align along these identified factors. The most appropriate factor analysis was determined to be a Principal Component Analysis with a Varimax with Kaiser Normalization rotation method. Seven factors were extracted in the factor analysis. Twenty-two of a total 37 items loaded on to components 1-3. When looking at individual items, one would expect each item to correlate highly in only one component. In Table 4, items are highlighted that scored high in only one component, thus indicating a quality item. Five items were determined to have higher than expected values in more than one component, thus indicating that these items may be measuring more than one aspect of school climate. Looking at the items that have been identified as higher quality would be a good starting point in planning for future versions of the assessment.

The next step to assessing the factor analysis was to establish whether the items that correlated highly with components 1, 2, and 3 appeared to have face validity. In other words, do these items appear to have a relationship and appear to be measuring the same construct? When evaluating the items, specific included words were assessed. Within component 1, nine of the twelve quality items had the words "adult" or "teacher" included. In addition, four of the items included "care" or "help", and three of the items included the word "fair." Overall, it appears that the first factor is closely related to adult/teacher care and support, as well as fairness as it relates to the adults in the school. Within component 2, all six quality items included the words "students" or "students at this school," and other descriptive words included "help", "respect", and "nice". Based on the identified descriptive words, component 2 relates most closely with the school climate/school connectedness construct of peer relations. Within component 3, each of the items address "rules" and the awareness and knowledge of these rules, in addition to expectations. Component 3 aligns most closely, based on face validity, with discipline (clear rules).

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Discussion

There have been numerous comments from teachers and administrators at schools participating in the initiative that the length of the needs assessment is too long, particularly for lower functioning students and those in grades 3 and 4. The current version of the needs assessment includes 108 items. Further analysis and research is suggested to determine the length that is appropriate for lower functioning students and those in grades 3 and 4. The technical assistance team at Miami has noted that there was more missing data toward the end of the assessment, particularly in the lower grades. It was also noted that a large number of students may have marked answers without considering each item, for example, marking all A's, or marking ABCD, ABCD, etc. It is important to explore the effect of this missing or "bad" data on the outcomes of the dataset as a whole and to determine how widespread this problem is across particular schools or certain grades.

As stated previously, further research and consideration is suggested to determine the quality of individual items on the assessment. Additionally, it is important to determine how the items are contributing to the decision-making of school teams. What data do the teams feel is necessary in choosing an evidence-based primary prevention program? In the past, schools have been provided with a summary report of the results, broken down by the ten factors in school climate. When considering that the data supports one overall factor, instead of ten separate factors, further analysis is suggested to determine which items are key to the planning process and selection of an evidence-based primary prevention program.

Summary and Conclusions

The purpose of the current study was to determine levels of internal consistency for the CASEL Student Needs Assessment, which is currently utilized in a large, grant-based initiative. The data was analyzed to determine whether organizing items based on school connectedness theory would produce higher levels of reliability. It was determined that there was no significant difference between organizing the items as the publishers determined, which was based on school climate concepts, and organizing the items based on school connectedness theory. Further analysis suggests that arranging and considering items based on subconstructs within the greater construct of school climate may be ineffective, because the data points to one overall construct.

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These findings are important considerations in planning for future versions of the assessment, as well as establishing the way in which data is presented to school teams.

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APPENDIX A: School Connection Definition Table

Author	Social/Emotional Subjective Measures
Goodenow & Grady, (1993)	- Liking - Personal acceptance - Inclusion - Respect - Encouragement for participation
Voelkl, (1996)	- Academic engagement - Likes school - Extracurricular activities - Teacher support
Resnick, Bearman, & Blum, et al., (1997)	- Belonging - Discipline and fairness - Likes school - Safety - Teacher support
Brown & Evans, (2002)	- Academic engagement - Belonging - Discipline and fairness - Student voice - Peer relations - Teacher support
Wingspread Declaration, (2005)	- High academic standards - Teacher support - Positive and respectful adult/student relationships - Safety
CDC, 2009	- Adult support - Belonging to a positive peer group - Commitment to education - School environment

APPENDIX B: School Connection Outcomes

Author	Personal Outcomes	School Outcomes
Goodenow & Grady, (1993)		- School belonging - Expectations of academic success - Valuing academic work - Persistence in difficult tasks
Resnick, Bearman, & Blum, et al., (1997)	- Lower emotional distress - Decreased suicidality - Decreased violence - Decreased substance use - Higher age at first sexual experience	
Eisenberg, Neumark-Sztainer, & Perry, (2003)		- Overall academic success - Decreased peer harassment
Wingspread Declaration, (2005)	- Decreased substance use - Decreased violent or deviant behavior - Lower risk of becoming pregnant	- Overall academic success - School attendance - Decreased fighting, bullying, or vandalism - Motivation - Classroom engagement - School completion rates
Henrich, Brookmeyer, & Shahar, (2005)	Decreased exposure to weapon violence	
Shochet, et al., (2006)	- Decreased depressive symptoms - Decreased anxiety symptoms	Academic outcomes
You, et al., (2008)	- Hope - Life satisfaction	
CDC, 2009	- Decreased substance abuse - Decreased early sexual initiation - Decreased violence	- School attendance - Overall achievement - School completion rates

APPENDIX C: Student Demographics

Gender	%	Grade	%	Ethnicity	%
Male	49	3	16	White (Not Hispanic)	63
Female	49	4	14	Black/African American	16
		5	15	American Indian or Alaska Native	3
		6	18	Other	10
		7	18		
		8	18		

Classroom Social Climate	• Students in my grade are kind and supportive of one another. • When I have a problem, other students help me solve it.
School Climate	• Students at this school treat students who are different from them fairly. • Students at this school put others down.
Discipline/Clear Rules	• In my classes, there are clear rules for how to behave. • In my classes, I know what will happen if I break a rule.
Bullying	• I feel bad when someone's feelings get hurt. • Do teachers or other adults at school listen when you have something to say?
Student Involvement in Decision Making	• In my classes, students are encouraged to decide things like class activities. • In my classes, teachers and students decide together what the rules will be.
High Expectations	• When I do a good job at school, my teachers are proud of me. • My teachers expect me to do a good job on my school work.
Care and Support	• My teachers really care about me. • I feel like I am an important part of this school.

APPENDIX E: Identified School Connectedness Constructs

Academic Engagement	- My teachers expect me to do a good job on my schoolwork. - I know I can do a good job at school.
Belonging	- I feel like I am an important part of this school. - I have a friend who really cares about me.
Discipline/Fairness	- In my classes, there are clear rules for how to behave. - My teachers punish students without knowing what really happened.
Student Voice	- In my classes, students are encouraged to decide things like class activities. - In my classes, teachers and students decide together what the rules will be.
Peer Relations	- Students in my grade are kind and supportive of one another. - When I have a problem, other students help me solve it.
Safety	- Students are usually nice to each other on the bus. - I feel safe in my school.
Teacher Support	- When I do a good job at school, my teachers are proud of me. - My teachers really care about me.