

DEFINING CLIMATE AND ENGAGEMENT IN THE COMMUNITY COLLEGE
CLASSROOM

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CLASSROOM

A Dissertation

by

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DEDICATION

This dissertation is dedicated to my students: past, present, and future.

You are my best teachers.

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Adult Literacy, Professional Education, Non-Credit Education

Abstract

of

DEFINING CLIMATE AND ENGAGEMENT IN THE COMMUNITY COLLEGE
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By

Lisa Marie Rochford, M.A.

This study concentrates on the factors of classroom climate that produce a learning environment in which community college students are engaged. By defining and disaggregating the impactful factors of classroom climate, this study explores the individual nature of classroom climate and its components. This study offers community college educators a tool to improve classroom climate so that community college students can learn in an environment that fosters engagement and thus the completion of educational goals.

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CHAPTER 1

INTRODUCTION

The attainment of higher education is often considered an attribute of successful people. “Success” within higher education is measured by the achievement of educational goals, most often a degree or certificate. An education is built, however, assignment by assignment, one class at a time. Classroom “success” can be understood in terms of classroom experiences, student perceptions of those experiences, and the engagement behaviors that result from those experiences. Classroom climate, in an academic setting, can be defined as the mood, the feeling, the sense of belonging and acceptance experienced in the classroom. While this is true of all higher education, the California community colleges have a unique set of challenges based upon their position in higher education within the state, changing policy demands and the unique challenges faced by the student population. For this important and challenged population, examining the climate of the classroom in terms of student engagement is the first step in understanding the more complex equation of institutional student success. The purpose of this study is to ascertain the impact of classroom climate on community college students’ engagement behaviors.

One public policy that brought more Californians into education was the California Master Plan for Higher Education (Fusch, 1996; Shannon & Smith, 2006). The Master Plan, implemented in 1960 stipulates that the top 12% of high school graduates will be admitted to the University of California, the next 12% will be

admitted to the California State University system and all others will be admitted to the California Community Colleges. Thus, the pursuit of enrollment, making sure that every student who wanted to come had a place, has traditionally been the focus of community college efforts. These efforts not only fulfilled the mission, but also were key to gaining state support, as enrollment at the beginning of each semester was the basis for state funding allocations (Jenkins, 2007; Murphy, 2004; Shulock & Boilard, 2007). This inclusive “come one, come all” philosophy filled seats and fulfilled the promise of access, but was not matched with resources or instructional programming to fill in the gaps in knowledge and academic preparation of the students who arrived to fill those seats (Venezia & Hughes, 2009). Unlike the California State University and University of California systems, the California Community Colleges have no admissions standards. By state policy, community colleges are obligated to enroll any student 18 years of age or over “who can benefit” from higher education. As the “third tier” of education discussed in the master plan and the closest geographic access point to higher education for most California citizens, community colleges became the beginning place for many. As a result, the system enrolls a large number of students who arrive more underprepared for academic experiences than those students who have met the requirements to begin the attainment of a degree at a four-year institution (Venezia & Hughes, 2009; Bailey, 2009). Consequently, the community college system is challenged by low retention and completion rates compared to their 4-year counterparts.

In the last decade or so, however, the focus has shifted from “come to college” or an access message to a message of completing an educational goal. Retention and degree completion, based in new public policy, have become the new norm in the community college system (Esch, 2009; Miller, 2013; Price & Tovar, 2014; Rhoades, 2012). The primary policy driving this change occurred in 2012, when the California legislature approved the Seymour-Campbell Student Success Act (SB1456). This act is a collection of legislation that gave very strict, data-specific definitions about what constitutes “success”. These new definitions linked “success”, as defined, to funding levels ("Seymour-Campbell student success act of 2012,"). Previously, student success had been defined simply as retention (completing a course with a “C” or better). Little institutional attention was paid to how quickly a student completed a degree path or to why students dropped out of college (Fusch, 1996; Hillman et al., 2014; Pascarella & Terenzini, 2005; Tinto, 1993). Previously California community colleges were rewarded by how many students attended the first several weeks of classes; now, community colleges are funded by how many students complete their classes with a grade of C or better (retention), how many students continue to the next semester (persistence), and how efficiently those students then move through a degree or certificate pattern (completion). (CCCCO, 2014).

This shift, known as the Completion Agenda, fundamentally changed the definitions of success across the community college system in California and created financial incentives for institutions to keep students (Harbour & Smith, 2016; McPhail & American Association of Community, 2011; Wild & Ebbers, 2002 (CCCCO, 2014;

Harbour & Smith, 2016; McPhail & American Association of Community, 2011; O'Banion, 2010; Tinto, 2012). Therefore, deepening the understanding of the aspects of the lived classroom experience that keep students coming back to complete their educational goals, becomes even more vital. This outcome is congruent with the purpose and projected outcomes of this study: to define the student environment, the climate, inside the classroom in discrete, ways that can be utilized to determine the impact of climate on students' engagement behaviors. Therefore, deepening the understanding of the aspects of the lived classroom experience that keep students coming back to complete their educational goals becomes even more vital.

The Contemporary Community College Student. Understanding the educational needs of community college students in the classroom begins with an understanding of student body as a whole. The California Community College system is the largest single system of higher education in the nation, serving over 2 million students on 113 campuses (California Community College Chancellor's Office Homepage). The student body reflects the diversity of California's population in ethnicity, educational attainment prior to college and in their own goals for their education (Braxton, Hirschy, & McClendon, 2004; Cejda & Rhodes, 2004; Wild & Ebbers, 2002).

Consider these statistics from the California Community College Chancellor's Office (2016) that gives some definition to the diversity of the student population as a whole, namely ethnicity and age. These statistics illustrate that the largest ethnic group in the California Community Colleges is Hispanics, representing 42% of the population,

followed by Caucasians at 27% and Asians at almost 12%. In addition, the other ethnic groups, while smaller, contribute to the recognition that these students, numbering over two million, are a majority minority population.

Table 1.1:

Ethnicity Breakdown, 2015-2016

	Annual 2015-2016 Student Count	Annual 2015-2016 Student Count (%)
State of California Total	2,343,732	100.00%
African-American	150,203	6.41%
American Indian/Alaskan Native	10,422	0.44%
Asian	270,848	11.56%
Filipino	65,624	2.80%
Hispanic	995,673	42.48%
Multi-Ethnicity	87,506	3.73%
Pacific Islander	10,179	0.43%
Unknown	110,474	4.71%
White Non-Hispanic	642,803	27.43%

In terms of age, table 1.1 shows 71% of students are under 30 years of age, with the largest segment being between 20 and 24. In 2015, California Community College League reported the average age of these students was 29 (American Association of Community Colleges, 2017).

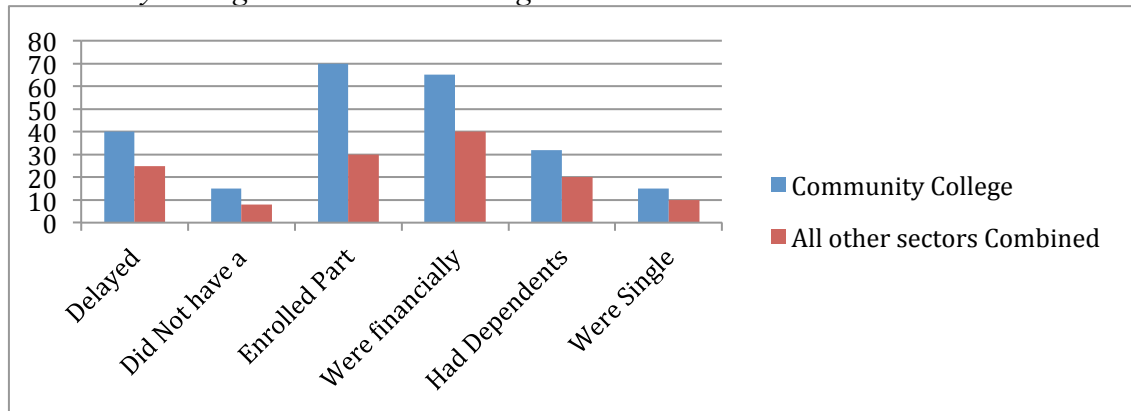
Table 1.2:

Age Breakdown, 2015-2016

		Annual 2015-2016	Annual 2015-2016
		Student Count	Student Count (%)
State of California Total		2,343,732	100.00%
	19 or Less	606,090	25.86%
	20 to 24	742,349	31.67%
	25 to 29	326,261	13.92%
	30 to 34	183,211	7.82%
	35 to 39	122,056	5.21%
	40 to 49	166,407	7.10%
	50 +	196,856	8.40%
	Unknown	502	0.02%

Community college students face considerably more life obligations (Cohen & Brawer, 2003) and arrive less prepared than their four-year counterparts (Bailey, 2009; Venezia & Hughes, 2009). National longitudinal studies of community college students reflect that one in three community college students have family incomes of less than \$20,000, which places them near or below the poverty line. Moreover, 69% of community college students work while in college, with 33% working 35 or more hours per week (<http://ccrc.tc.columbia.edu/Community-College-FAQs.html>). In addition, community colleges have a much higher percentage of first-generation college students among them (Cohen & Brawer, 2003). Below is a table from “Why Access Matters”, a policy brief from 2012 that explains the differences between the community college student body and freshmen who are beginning their four-year term in universities in terms of “risk factors” (Kuh, et al, 2007).

Table 1.3:

Community College & Four-Year College Freshman

This data demonstrates that students who enroll in community colleges enroll in fewer classes, have more family obligations, are older, and are less prepared for academic pursuits than their four year counterparts. Because of these external factors, classroom experience is critical component to overall student success at the community college level. Since most community college students spend the majority of their time in the classroom and very little time engaged in campus life outside the classroom, the time they spend in the classroom is the most impactful aspect of their educational experience (Lundburg, 2014; Lester, 2013, Pascarella & Terenzini, 1991).

To date, most of the existing research on classroom climate has been conducted with four-year university populations (Bensimon, 2011). This body of research does contribute to the understanding of the community college student experience in the classroom, but there are also issues particularly relevant to community college students that are not sufficiently addressed. Because of the challenges and factors mentioned above, community college students are the most educationally vulnerable in higher

education. Therefore, researchers and educators must focus specifically on this population to improve their educational experiences.

Statement of the Problem. To date, there has not been sufficient research that is focused on the community college classroom. Due to the life circumstances that are typically at play in the lives of community college students, these students are more challenged by retention and completion. Although a positive, supportive, engaged classroom is important for students at any level, it is arguably most crucial for for community college students, who spend very little time engaged in campus activities beyond the classroom (Lundburg, 2014; Lester, 2013; Pascarella & Terenzini, 1991). If community colleges are going to retain students, have those students persist and eventually complete educational goals, the quality of the lived student experience in the classroom is crucial. To date, little attention has been paid to the student experience inside the community college classroom and thus, research can offer little regarding the elements of classroom climate and how these factors impact engagement.

. The factors mentioned in the research questions will be presented later in this chapter.

Research Questions

1. What are student's perceptions of classroom climate factors? (Academic Support, Classroom Management, Course Content, Cultural Sensitivity, Peer Relationships, Student Autonomy, Teacher Presence)
2. Which of the classroom climate factors most impact student engagement behaviors?

3. Do different demographic groups have differing perceptions of classroom climate factors?

Theoretical Frameworks. The purpose of this study is to define the factors of classroom climate that impact community college students and ascertain the effect of climate on the engagement behaviors of these students across demographic groups. This study builds on current research and, in particular, the theoretical frameworks and models provided from the work of Edgar Schein (2004), Alexander Astin (2001), and Vincent Tinto (1993). Edgar Schein is a sociologist who studied organizational culture and offered a model that took abstract elements of culture and climate and located them in concrete, quantifiable “artifacts” that can be measured and evaluated. Alexander Astin and Vincent Tinto have both contributed to current thinking regarding student engagement, how engagement impacts student learning and how institutions need to reimagine student success in various ways to include aspects of engagement and generate data to support institutional change in these areas. This study takes Schein’s concepts of tangible artifacts and combines that with the engagement theories of Astin and Tinto to create tangible, actionable descriptions of classroom climate.

Studies at all levels of education have studied school environment, climate and its artifacts in an effort to better understand the student lived experience.

Understanding classroom climate and its relationship to engagement and academic growth is critically important to improving student performance, particularly with community college students. In her paper “School Engagement: Potential of the

Concept, State of the Evidence” (2004), Jennifer Fredericks forwards the following conclusion:

“Because surveys often combine questions about the classroom, the school, academics, and social relationships, it is difficult to determine the actual source of engagement, how engagement is related to context, and how engagement changes if conditions are altered. One important area for future inquiry is the impact of school and classroom interventions on behavioral, emotional, and cognitive engagement”.

This statement is made with regard to elementary school populations of students, but is nevertheless relevant to the community college environment. There are many surveys regarding engagement, many that are nationally known and longitudinal in nature. These studies do not, however, consider the classroom as an independent environment. (Burch et al., 2015; Gascoigne, 2012; MacAulay, 1990; Velayutham, Aldridge, & Fraser, 2011).

Researchers have addressed various aspects of climate and institutional culture, but have come to no clear conclusions regarding the definition of climate or the correlations of culture, climate and student engagement or success. In order to make the results of this study applicable and impactful, an understanding of the intersecting elements of climate and how those elements manifest at the various levels of the lived student experience is vital. Building a coherent narrative regarding the impact of climate on classroom engagement begins with data. (Braxton et al., 2004; Cohen, 2003;

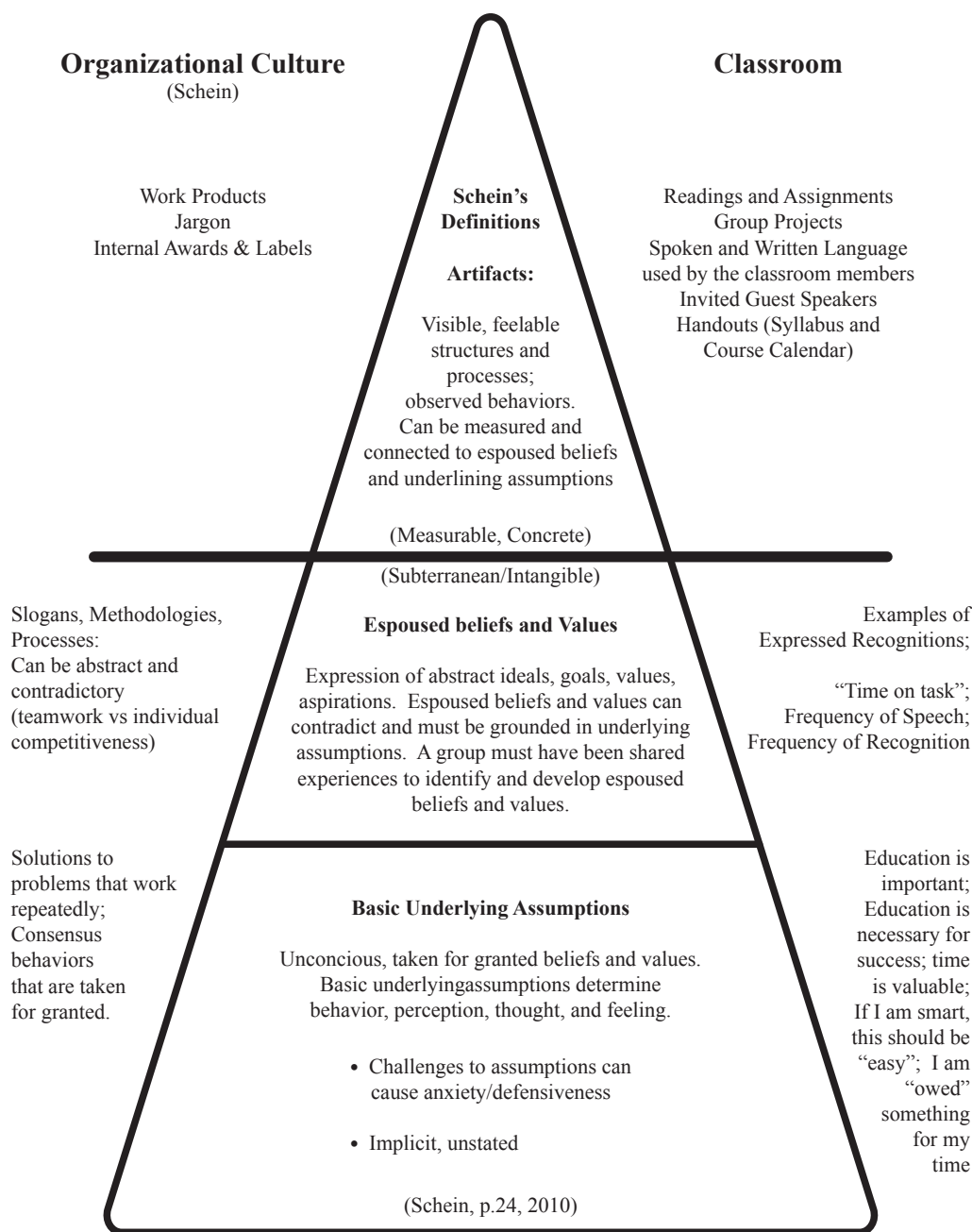
Marti, 2009) What does engagement look like in daily classroom life? Are students who visit their teachers in office hours, who perceive their teachers to be open & inclusive, more likely to attend class and complete assignments? What impact does classroom management on engagement with different demographic groups?

All of the questions and definitions above form the lines of inquiry for this study: What is an appropriate, sustainable process to measure the classroom behaviors that will produce actionable, impactful results? Edgar Schein's concepts of "Artifacts", "Values", and "Assumptions" offer a helpful framework for analyzing organizational culture and producing the kinds of data that are needed to effect outcomes. Schein defines "artifacts" as the visible products of the group", giving examples of "language", "artistic creations" "manners of address" and "emotional displays" (Schein, 2010). Schein provides a set of definitions of artifacts that will allow meaningful analysis of community college classroom climate and a translation of its artifacts into data that will improve student engagement.

Once the artifacts of a culture are identified, those artifacts can be used to infer what Schein calls "espoused beliefs and values". Espoused beliefs and values are the expressed goals, beliefs, and aspirations of the group as manifested in its artifacts. If a teacher gives a compliment to a student, the words the teacher uses become an artifact. The behavior or performance that the teacher compliments then becomes an ideal. This explanatory table explains Schein's Three Levels of Culture:

Figure 1:

Schein's Organizational Culture Diagram



Schein's Three Levels of Culture can be applied to any organized group. In this case, this study will apply Schein's concept of artifacts to the factors of classroom climate. For example, if an "artifact" of engagement is that both peers and teachers use positive, inclusive language, then this study provides a measure of that perception as part of the interpretation of climate. If students are allowed some degree of choice in what assignments they will complete, are they more likely to turn those assignments in? This study provides data to answer that question. In other words, these "artifacts" are the elements of direct contact and interactions with the students and thus the mechanisms through which classroom climate is both defined and fostered.

The isolation of artifacts and interpreting the classroom experiences of students in terms of engagement is an essential first step in developing new definitions of engagement for community college students. (Chaves, 2006; Donaldson & Graham, 1999; McClenney, Marti, Adkins, & Community College Survey of Student, 2012; Michalowski & Association for Institutional, 2010; Tinto, 1993). Understanding students' perceptions of the artifacts of classroom climate, as defined by this study, will enable researchers and their institutional partners to build a new pathway to effect the experiences of students in the classroom, that experience that is so critical for community college students. The tool utilized in this study serves to translate the intangible elements of climate into a set of variables that is both interpretable and actionable for better understanding of student engagement behaviors (Burch et al., 2015; MacAulay, 1990; Velayutham et al., 2011; Zullig et al., 2015).

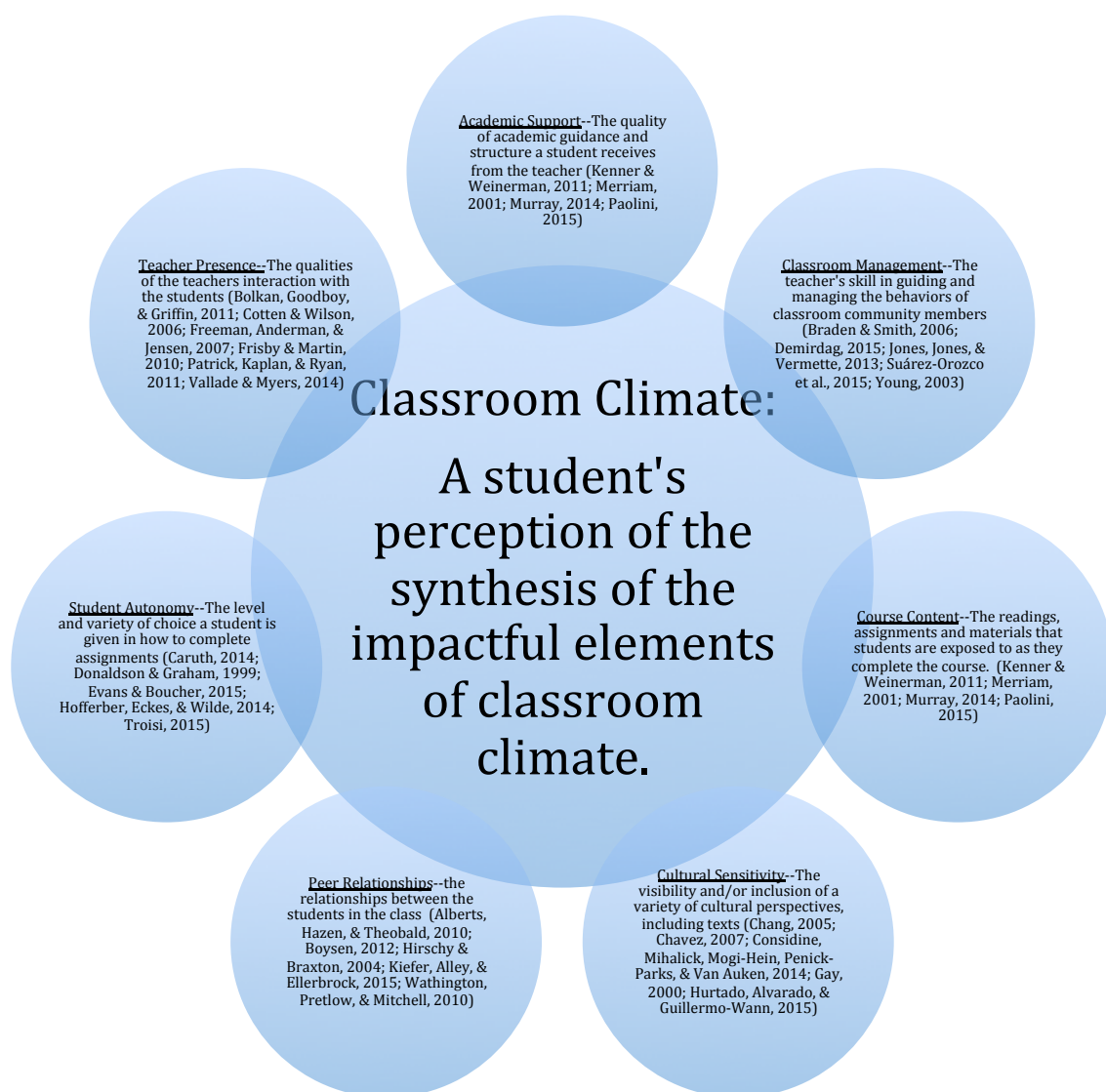
But how do institutions and researchers measure the community college classroom experience and account for the myriad of factors affecting it? Those factors include those experiences that are particular to individual students and those experiences that define the perception of the classroom in general. In “How Learning Works”, Ambrose (2010) defines classroom climate as “the intellectual, social, emotional, and physical environments in which our students learn. Climate is determined by a constellation of interacting factors that include faculty-student interaction, the tone instructors set, instances of stereotyping or tokenism, the course demographics (for example, relative size of racial and other social groups enrolled in the course), student-student interaction, and the range of perspectives represented in the course content and materials” (Ambrose, 2010).

In order to measure a student’s perception of climate and produce meaningful data that will be suggestive of positive change, institutions will have to measure the factors of climate and locate those factors in measureable classroom phenomena. For the purposes of this study, the seven factors of climate that will be defined and explored are academic support (the quality of academic guidance and structure a student receives from the teacher), classroom management (The teacher’s skills in guiding and constructive redirecting student behavior in the classroom), course content (the information students are exposed to and the assignments that students complete to fulfill course requirements), cultural sensitivity (the visibility and/or inclusion of a variety of cultural perspectives, including texts), peer relationships (the relationships between students in the class), student autonomy (the level and variety of choice a student is

given in the fulfillment of assignments), and teacher presence (the qualities of the teacher's interactions with students). These factors are identified and defined on the diagram below:

Figure 2:

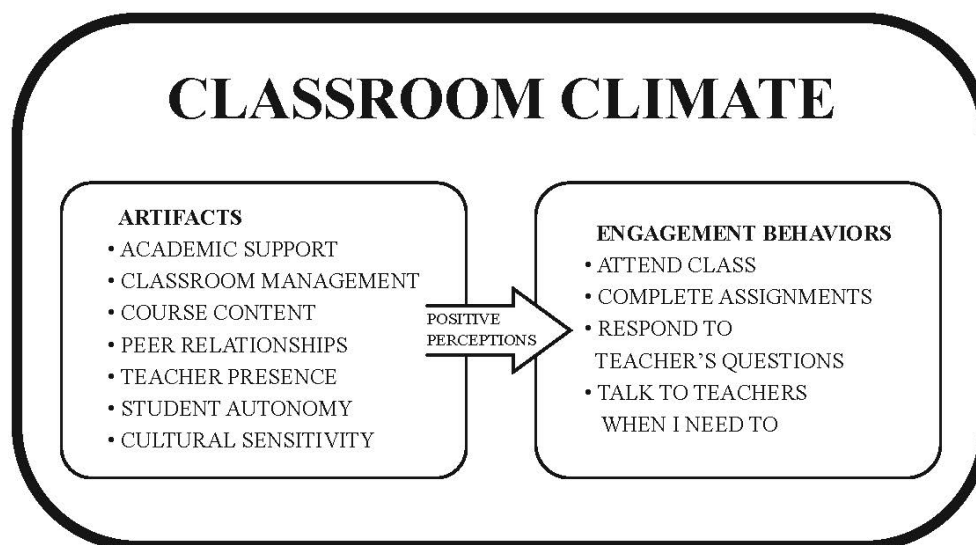
Classroom Climate Factors



According to many researchers, institutions being able to “meet students where they are” (Fuehrer, 2011; Saidy, Hannah & Sura, 2011) both in and out of the classroom is crucial to student engagement. Also, fostering a sense of inclusion and belonging that begets engagement and then “success” is a necessary beginning to increasing the number of students who complete college. This is why classroom climate data is needed. Most institutions measure student success from the outside, using outcome measures and completion totals, but very rarely are student voices included in the equation (Kenner & Weinerman, 2011; Kuh et al., 2007; MacAulay, 1990; Marti, 2009). To better serve underprepared students, institutions must develop a more nuanced understanding of the lived student experience inside the classroom. This data will complement the already existing institutional data that measures and defines student progress outside the classroom and provide institutions with insight on how to develop student engagement within the classroom.

This model accounts for the factors detailed above and provides a visual representation of classroom climate as this study intends to describe and explore it:

Figure 3:

Classroom Climate Diagram

This model incorporates Schein's concept of organizational culture (illustrated in the previous diagram) with Tinto and Astin's models of student engagement. This model places the artifacts identified by research as important to classroom climate, identified above, and places them in a structure where student perceptions of the climate artifacts can be quantified and then correlated with engagement behaviors across demographic groups, thus providing essential data on student perceptions of climate.

The essential question this study addresses is this: What classroom factors are most impactful for classroom engagement? This study will identify and examine students' perceptions of the identified classroom climate factors, determine the impact of the defined classroom climate factors on student engagement behaviors, and, finally, correlate factor perceptions to student responses to different demographic groups. The

in-class study site for this data is particularly relevant to students who begin their educational journey at a community college. All of the challenges that all students have: time, money, family obligations are magnified for students at the community college level. This makes the classroom experience an essential one to understand if institutions are to make a true and lasting difference in a student's progress.

Conclusion. The isolation of artifacts and interpreting the classroom experiences of students in terms of engagement is the key to developing new strategies to increase not engagement in the community college classroom. Understanding student perceptions of the artifacts of classroom climate, as defined by this study, will enable researchers and their institutional partners to construct new strategies to impact the experiences of students so that they will complete classes, and eventually achieve degrees and certificates in greater numbers. This study provides a new tool to describe student perceptions of classroom experience and translate intangible elements of climate into a set of variables that is interpretable and actionable. These climate factors will then be with correlated with classroom success factors to determine student engagement.

Chapter 2

REVIEW OF RELEVANT LITERATURE

The purpose of this chapter is to examine existing literature on student engagement and to further detail the significant factors of classroom climate. This chapter will also explain how student perceptions of the climate factors, in total, reflect student engagement. This chapter will also support the inclusion of each particular factor in accordance with scholarship. The ultimate aim of this study is to provide insight into the impact of classroom climate on the engagement behaviors of community college students across demographic groups.

The body of research that explores the impact of classroom climate, the relationship of climate to engagement, and the difficulties of creating a meaningful measure of climate are multi-faceted. This review approaches the literature from a variety of angles: student success and policy, the relationship of climate to engagement, existing climate research, and, finally, the significant factors of classroom climate that can be leveraged for gains in overall student engagement and success. The following research questions will guide the review of relevant research:

Research Questions

1. What are student's perceptions of classroom climate factors?
2. Which of the classroom climate factors most impact student engagement behaviors?
3. Do different demographic groups have differing perceptions of classroom climate factors?

Student Success. The relevance of this study to the community college audience is not only the extent to which it addresses good teaching practice, it is the degree to which it addresses current policy challenges. For the purposes of this study, institutional student success is defined as completing a course with a C or better (retention) and enrolling in subsequent terms of study (persistence) to eventually earning a stated educational goal (completion). Classroom engagement, the subject of this study, is focused on those classroom conditions that beget engagement (attending classes, finishing assignments, class participation, and seeking assistance and connection with the teacher). These behaviors, as demonstrated in scholarly research, are the behaviors which should eventually lead to good grades, persistence, and eventually completing a course of study within two-years, thus fulfilling the vision of institutional success.

Climate, both across the campus and within the classroom, and the impact of climate on student success have been a topic of interest among researchers. Bailey (2009), Trevino (2013), and Stanton-Salazar (2011), among many others, call for various reforms to institutional programs in order to improve success and completion rates. Pascerella and Terenzini (2005) assert that the more engaged a student is, the more that student will be successful. Engagement is generally defined as being involved in the life of the classroom, participating in campus life outside the classroom, asking questions and interacting with faculty and peers (Bailey, 2009; Stanton-Salazar, 2011; Trevino & DeFreitas, 2014). The logic of these arguments concentrates largely on increasing engagement outside the classroom e.g. services & programs (financial aid,

tutoring, etc.) (Burch, Heller, Burch, Freed, & Steed, 2015; Pascarella & Terenzini, 2005; Tinto, 1993). Generally, the overarching assertion is that increased student engagement is a key component to student success (Pascarella & Terenzini, 2005; Miller, 2013; Nitecki, 2011). And, as asserted and documented in the previous chapter, community college students are challenged by the notion of campus engagement due to lack of academic experience, commute distances, and other life obligations.

Scholarship also addresses the efficacy of academic programs and the improvement of academic offerings for low-skilled students. Students who arrive in college under-prepared are often those who will drop out of college and not complete a stated educational goal (Harper-Marinick & Swarthout, 2012; Hlinka, Mobelini, & Giltner, 2015; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007; Christopher M. Mullin, 2012). Developing policy supporting the improvement of academic programs is a key component of the new success culture that governs community colleges so that the needs of these under-prepared students are better addressed (K. P. Davis, 2015; McPhail & American Association of Community, 2011; Christopher M. Mullin & American Association of Community, 2012b; Rios, 2014; Zhai & Monzon, 2001). The policy development called for in the literature includes academic improvement in terms of programmatic offerings (Caruth, 2014; Nitecki, 2011; Stuart, Rios-Aguilar, & Deil-Amen, 2014) and in terms of professional development around instruction (Boysen, 2012; Caruth, 2014; Considine, Mihalick, Mogi-Hein, Penick-Parks, & Van Auken, 2014; H. S. Davis, 2013; Denney & Daviso, 2012).

In the collective view of these researchers, existing policy and practice largely do not offer effective supports in or out of the classroom for non-traditional students. All of the scholarship mentioned above suggests necessary and helpful change at the institutional level. However, since community college students are a unique and diverse group, they require a set of definitions and measurements that are developed to pinpoint their own unique dynamics (Baldwin, Bensimon, Dowd, & Kleiman, 2011; D. Jenkins, 2007; R. Jenkins, 2012). This study seeks to establish the classroom behaviors that define climate and then explore the impact of climate on the engagement behaviors of community college students across demographic groups.

Engagement and Motivation Theory. The question of student engagement and motivation is at the heart of current conversation regarding student success. The completion agenda and its attendant policies demand institutional student success in the form of retention (AACC, 2016; Harbour & Smith, 2016; Hillman et al., 2014; Rios, 2014) and an improvement in persistence (returning from semester to semester) and completion (finishing a degree or certificate path) rates. There is also a diverse body of scholarship that equates engagement behaviors (attending classes, relationships with peers, faculty and staff outside the classroom, etc) with persistence and completing classes. This study seeks to define the significant elements of classroom climate that encourage these engagement behaviors across demographic groups.

There is a large body of literature that documents the elements of motivation in learning and persistence at the college level. The theories of Vincent Tinto (1997) and

Alexander Astin (2001) are the most applicable to the goals of this study. The dynamics of motivation are a central element of understanding student behavior and many studies have addressed these elements (Burch et al., 2015; Donaldson & Graham, 1999; Estell & Perdue, 2013; Gasiewski, Eagan, Garcia, Hurtado, & Chang, 2012; Marti, 2009; McKeachie, National Center for Research to Improve Postsecondary Teaching and Learning, & et al., 1987). Essentially, engagement is active participation in and out of the classroom so that student are completing assignments, asking questions, and generally forming the kinds of relationships in and out of the classroom that are necessary for overall success.

In his body of work, Vincent Tinto has discussed many of the reasons students leave college and what institutions can do to prevent student attrition and increase student retention. In *Leaving College* (1997), Tinto discusses the need for student engagement as a necessary component of the college experience if students are to feel connected to the college experience and persist. The lack of connection, in Tinto's assertion, is what leads to discouragement and eventual dropping out. In Tinto's view, the crucial aspect to effective student retention is institutional investment in building a strong sense of inclusive educational and social community on campus. Most of Tinto's work concentrates on the institutional level, but he also explores the criticality of the classroom experience.

Alexander Astin's work correlates with Tinto's in terms of understanding the impact of student engagement. In his *Theory of Student Involvement*, Astin (1995)

asserts that students need to have a sense of ownership and autonomy in their college going experience. That connection and involvement with other students and the campus community will provide the support that students need to develop the skills and attitudes required to get through college. A key aspect of Astin's work is the delineation of five basic assumptions regarding "involvement", which serves as an alternate term for engagement in this study. Astin argues that involvement requires an investment of psychosocial and physical energy on the part of the student. Involvement is continuous, and aspects of involvement may have qualitative and quantitative aspects, such as time and feeling good about teachers, assignments, and peers. Astin's theory is predicated on the idea that what a student gains from being involved (engaged) is directly proportional to the extent to which he or she is involved or engaged. Lastly, academic performance is correlated with student involvement.

The combination of the engagement theories and models of Astin and Tinto provide a framework for making "engagement" tangible, allowing for an exploration of classroom level engagement. This study concentrates on what happens in the classroom and how those experiences influence daily student behaviors. This study also provides a mechanism to explain classroom engagement behaviors with data derived directly from student perceptions of climate. Although it is beyond the scope of this study, fostering these behaviors inside the classroom should lead to an overall pathway that positively increases retention and influences institutional student success over time. Even though this assertion is beyond the scope of this study, it does explain why Tinto and Astin are appropriate models.

Climate Research & Instruments. The concept of climate and its relationship to positive perceptions has been well-explored by researchers in a wide variety of educational settings (Burch et al., 2015; Gascoigne, 2012; MacAulay, 1990; Tetler & Baltzer, 2011; Yan Yang, Yoon Jung Cho, & Watson, 2015; Zullig et al., 2015). There is, however, as noted by these researchers, a lack of data that is specific to the community college classroom. MacAulay (2010), for example, states that “The research on classroom environments has yielded copious amounts of data to demonstrate the beneficial effects of manipulation of environmental variables...Structure and organization, cognitive processes, student characteristics and teacher characteristics are all seen, in various degrees, as being capable of modification in directions which enhance the acquisition of cognitive, affective and social skills”. In other words, it is well-documented that classroom climate is a synthetic phenomenon and there is data to demonstrate that climate is a) malleable and b) has an effect on student achievement and success (Gascoigne, 2012; Makara & Madjar, 2015; Sidelinger & Booth-Butterfield, 2010).

When it comes to actually measuring climate, there is no commonly used instrument that researchers can use as a definitive tool. Additionally, there is little agreement on terminology; the literature is not consistent in the labels applied to the climate factors discussed in various studies. Many researchers postulate that climate must be understood in terms of factors to capture the range of perceptions in a given group of people (Alberts, Hazen, & Theobald, 2010; Chavez, 2007; Ebrahimi, 2013; Jones, Jones, & Vermette, 2013; Koskey, Karabenick, Woolley, Bonney, & Dever,

2010; Wang & Eccles, 2013; Webb & Barrett, 2014). However, any measure of classroom climate in a community college must not only account for climate factors critical to all learners independent of educational setting or level, it must account for factors that are relevant to adult learning, such as student autonomy (Caruth, 2014; H. S. Davis, 2013; Holyoke & Larson, 2009; Merriam, 2001; M. A. Taylor, Fischer, & Taylor, 2009).

There are many available studies that utilize validated classroom climate instruments, including the Learning Environment Inventory (Aldridge, Dorman, & Fraser, 2004; Spreda & Donnay, 2000), the Classroom Environment Scale (CES) (Fisher & Fraser, 1983; Kalayci & Cimen, 2012; Wheldall, Mok, & Beaman, 1999), and the Individualized Classroom Environment Questionnaire (ICEQ) (Kalayci & Cimen, 2012; Wheldall et al., 1999). The challenge with these instruments for the purposes of this study is that each of them concentrates on elementary or secondary school environments. These studies are useful for understanding the more universal elements of teaching and classroom management, and some aspects of the teacher-student relationship. But these studies do not account, however, for understanding the impact of issues as they would affect adults at a community college.

Climate studies that address issues that are particular to college students are, again, typically focused on institutional level or campus-issues and do not gather information specifically regarding the classroom experience (Pascarella & Terenzini, 2005; Harper & Hurtado, 2007). For example, the National Study of Student

Engagement (NSSE) and the Community College Survey of Student Engagement (CCSE) were informative instruments in the development of this study as far as clarifying the importance of engagement in general, yet neither focuses specifically on classroom climate.

In summary, there is no single predominant instrument that is utilized to study classroom climate in the four-year setting. Studies that have been conducted on classroom climate in post-secondary settings have developed their own instrument (Caruth, 2014; Rice, et al). None of the instruments documented in this literature review incorporated the spectrum of classroom climate factors utilized to define climate in this research. Therefore, the development of a new tool to measure climate in the community college classroom was necessary.

The Integrated Classroom Climate Survey. To account for the lack of a single tool that will incorporate the elements of classroom climate so that student perception data can be gathered, this research proposes a new tool for measuring classroom climate, the Integrated Classroom Climate Survey. The following sections of this chapter will define and explain the climate factors, locate the climate factors within the theoretical model, connect the climate factors to research literature and finally, define and identify engagement behaviors identified in the theoretical frameworks and echoed in the research literature. Table 2.2, below, identifies the factors of climate and connects those factors to classroom artifacts.

Theoretical Model. The theoretical models for this study, specifically the work of Edgar Schein, introduced in Chapter 1, provide the mechanisms for delineating the measurable aspects of classroom climate and connecting positive perceptions of those factors to increased student engagement behaviors. Following Schein's model, artifacts are the tangible, discrete products of a culture; espoused beliefs and values are the expressed but abstract ideals and goals, and basic underlying assumptions are taken-for-granted beliefs and values. For example, if a student gets a "good" grade on a test (an artifact), that student can then infer that they are doing a "good" job in the class (a value or a goal) and then that student could connect that direct experience to something more abstract about school performance: I am doing well so I am a "good" student. The good grade on the test is the tangible, measurable artifact of the more abstract beliefs and assumptions regarding overall school performance.

The following sections will discuss the artifacts of classroom climate as well as their grounding in research literature. Additionally, each section will describe how these artifacts of classroom climate shape the behaviors that impact engagement in the academic environment of the community college classroom.

Table 2.1: Classroom Climate Factors

Climate Factors	Description/Definition	Tangible Artifacts
Academic support From teacher	The teacher's skill in facilitating learning and giving formal and informal feedback. Does the teacher's commentary on assignments encourage positive growth or does it criticize and limit?	<p>Clear, detailed instructions on all items that will be graded</p> <p>Explicit deadlines and expectations for all graded assignments</p> <p>Expressed respect for stated opinions</p>
Classroom management	The teacher's skills in managing the behaviors of the class members. This includes correcting or controlling less desirable behavior and providing constructive socio-academic guidance.	<p>Classroom conversations are focused on academic topics and/or topics that are relevant to student life on campus</p> <p>The teacher takes effective steps to minimize distracting, disrespectful, unproductive behaviors</p>
Course content	The assignments and readings that are completed over the course of a class, both in class and as homework. Are the assignments well-focused, appropriate to the class, and articulated in such a manner that the assignment brings a sense of value and accomplishment to the classroom experience?	<p>Coursework is relevant to life outside classroom</p> <p>Coursework has clear connections to other courses when appropriate</p>
Cultural sensitivity	The teacher's sensitivity to diversity and the inclusion of differing cultural perspectives within the classroom experience. This can be readings, assignments, and class activities. Do the assignments reflect an understanding and value of a multiplicity of cultural perspectives?.	<p>The teacher discusses and/or displays knowledge of a wide range of cultural perspectives and approaches</p> <p>Assignments and other course content draw upon a wide variety of cultural perspectives</p>
Peer relationships	The relationships between the student members of the classroom community. Are these relationships positive and supportive or are there aspects of the behavior of peers that detract from the student experience?	<p>The words used by class members are helpful, supportive and appropriately sensitive.</p> <p>Class members communicate with one another about important class issues</p>

Climate Factors	Description/Definition	Tangible Artifacts
Student Autonomy	A student's ability to make appropriate choices within the curriculum and/or classroom environment. Does the teacher allow students to make choices within content and execution of assignments or are the choices limited?	Students choose readings Classroom documents that offer students options about how to fulfill assignments
Teacher Presence	The teacher's personality and voice. Is the teacher available and approachable? Does the teacher convey a sense of caring and engagement with students? Does the teacher inspire confidence, trust and safety?	Feedback is personalized, detailed and helpful. The teacher displays personal care and friendliness.

As a group, the “artifacts” identified in Table 2.2 represent the values and goals of an engaged classroom. If a student is perceiving these elements positively, then that student should be attending class and doing the work that is required to have a sense of belonging to that world of the classroom. This “sense of belonging” is something that both Astin and Tinto discuss as a hallmark of an engaged experience anywhere on a campus and this study proposes to measure the impact of those perceptions in the community college classroom.

The following sections discuss the research basis for each individual element and connect each element to the ultimate measure of engagement that this study seeks to quantify and explicate. Ultimately, if institutions need to develop a culture of “success”, then measuring students’ current perceptions of these artifacts will provide

insight into the sorts of engagement behaviors that need to be fostered in the day-to-day environment of the classroom.

Classroom Artifacts

Artifact: Academic Support. One of the most critical factors in influencing engagement for community college students is the amount of support that students get in the classroom. The Student Success Act (SB 1456) has defined specific and numerous supports that students are now entitled to receive. Counseling pathways are mandated and data has been disaggregated to target supports toward needful student populations. But this is institutional level support. And while this does aid classroom experiences to a certain extent, attention must be given to what kinds of supports students receive inside the classroom. (Bolkan, Goodboy & Griffin, 2011) This study proposes to measure the following aspects of classroom academic support.

1. My teacher makes sure I understand the assignments and that I know what is expected of me to fulfill the assignment.
2. The opinions I state in class are respected by my teachers and the other students in my class.
3. The teacher has reasonable deadlines and gives students reasonable time to complete assignments.

Wyatt's (2011) study of the needs of traditional vs. non-traditional students best represents the discussion of academic support that informed the formation of the above survey questions. Wyatt notes that "faculty experienced in the ways of learning and

teaching non-traditional students” (Wyatt, p. 17, 2011) defines the need for clarity of expectation in question 1, a statement that echoes the conclusions found in many of the studies consulted for this research (Rice, et. al, 2012; Miller, 2013). Wyatt (2011) also states that non-traditional, adult students benefit from faculty and staff who exhibit, among other qualities, “are flexible and take into consideration the multiple time constraints of non-traditional students” (Wyatt, p. 17, 2011).

Academic support includes the feedback and guidance a teacher gives to help students grow academically. Teacher academic support can be viewed as direct and private between an instructor and a student, but also overlaps with classroom management. This element of classroom climate builds a sense of competency, which is a key factor in motivation (Ryan & Deci, 2000). By providing supportive feedback, a teacher helps a student understand his or her achievements and provides learning goals as the student moves through the curriculum. Boesch notes that a significant aspect of the classroom experience was the manner in which professors “created a personal, comfortable atmosphere in class” (Boesch, 5, 2014). Wang, Brinkworth, & Eccles (2013) report that when “supportive teachers become involved in the lives of high-risk adolescents both the behavioral orientation and mental health of the child were improved (Wang, Brinkworth & Eccles, 16, 2013). Although the needs and behaviors of community college students cannot be generalized from the findings of a report on adolescents, the impact of teacher support is well-noted.

Additionally, community college students enroll in college with significant gaps not only in academic knowledge, but “college-knowledge”, the kinds of behaviors that will help students be more successful in a college environment (Martin, Galentino, & Townsend, 2014; McClenney, 2004; Mullin & American Association of Community, 2012; Pascarella & Terenzini, 2005; Sheppard, 2012; Tinto, 1993). Since many community college students are the first in their families to go to college, work many hours a week and typically commute to campus, academic support plays a pivotal role in their success. Academic supports include affective skills: figuring out how long assignments will take to be completed, flexible deadlines, reasonable time to complete assignments and other supportive practices that may not speak directly to an academic assignment, but will vastly enhance a student’s ability to complete it successfully (Ben-Eliyahu & Linnenbrink-Garcia, 2015; Grolnick, Ryan, & Deci, 1991; Roper, 2014)

Artifact: Classroom Management. Classroom management is a critical component of classroom climate. The relationship between the teacher and the student, the teacher’s attitude toward teaching and students, etc. is a key component of student engagement. The defining elements of management include: the teacher’s skill in managing the engagement levels of students; how disengagement is redirected; how the information flows within a classroom; how the conversations are focused, and how class members are kept on-task. Although this study is focused on community college students, the research and scholarship that details the aspects of positive classroom management across the segments of education (Elementary, Secondary and College) are applicable. In summary, this research describes an engaged classroom as a positive

classroom. (Reyes, Brackett, Rivers, White, & Salovey, 2012; Bolkan, Goodboy, & Griffin, 2011) All are critical parts of the engagement potential of that experience for individual students in the classroom. A teacher's classroom management skills directly impact a student's perception of climate. Research identifies the following questions as essential to the classroom management component of engagement and positive classroom climate:

1. The conversation in the classroom is focused on academic topics related to an assignment and/or teacher directed activities.
2. My teacher takes effective steps to minimize distractions to classwork, such as side-chatting and cell phone use.
3. My teacher demonstrates care when a member of the class does not participate or demonstrates signs of distress.

Sidelinger & Booth-Butterfield's 2010 study on connectedness in the college-classroom best defines the optimum classroom conditions and the classroom management skills that foster engagement. Additionally, there are studies that document constructive practices that are effective in classroom management across all educational segments: primary, secondary and post-secondary (Braden & Smith, 2006; Demirdag, 2015; Jones et al., 2013; Wolff, van den Bogert, Jarodzka, & Boshuizen, 2015). Jones, Jones and Vermette detail the kinds of classroom strategies that are effective for more urban environments, such as controlling language use and building an accepting culture inside the classroom. Demirdag (2015) discusses the relationship between self esteem and control of the dynamics in the classroom at the middle school level. One example of this phenomenon that can be generalized to all educational levels

is students who are in need of attention acting out in class. The common thread of these studies is that students must feel that the teacher is in control in the classroom and that the teacher takes constructive steps to control behaviors that impact the group.

Although there is scant empirical literature that speaks directly to classroom management at the college-level on a large scale, there is a varied and growing body of literature that addresses topics such as “classroom incivilities”, using negative words, engaging in distracting behaviors, having conversations that are not related to classwork and the influence of such behaviors on engagement. This body of work has been informative in constructing a definition of classroom management as it relates to climate. Classroom incivilities tend to elicit hurt feelings and other negative feelings toward the classroom experience and, thus, are harmful to classroom climate and productive classroom work (Hirschy & Braxton, 2004). Additionally, students expect professors to control disruptive behaviors in the classroom and their perception of and respect for the professor declines if the professor does not attempt to control the behavior in some manner (Wolff et al., 2015; Young, 2003).

Micro-aggressions are unconscious, offensive comments that reinforce negative stereotypes. Several studies that address “micro-aggressions” and their effects on classroom dynamics have been published recently (Boysen, 2012; Hernández, Carranza, & Almeida, 2010; Sue, Lin, Torino, Capodilupo, & Rivera, 2009; Suárez-Orozco et al., 2015). These studies identify several types of negative behaviors that can occur between students and between students and faculty and detail the adverse and damaging

impacts these behaviors have on classroom climate. In terms of classroom management skills, Suarez -Orozco, in particular, details the responsibilities of the instructor in publicly managing these behaviors so that students feel supported and boundaries of behavior are clear, thus effectively fostering a positive educational atmosphere.

Positive classroom management is a critical component of a constructive classroom experience that leads to student engagement. To create an environment in which all students can learn to their highest potential, a teacher must mitigate and discourage distracting behaviors on the parts of class members and encourage and promote behaviors that foster engagement for all members of the class. Data elements that delineate these perceptions are a critical component of this proposed study.

Artifact: Course content. The work that students do in their courses has a direct impact on a positive impression of the class, which is a direct component of engagement. Adult students are in college to earn a degree, to transfer, or to enhance job skills. Engagement research demonstrates that students must be challenged by course content and have a sense of application of the material in their courses to life outside the classroom (Meyer, Spencer, & French, 2009; Paolini, 2015; Pascarella & Terenzini, 2005; Tinto, 1997). Much of the engagement research ties concepts such as academic rigor to the development of a positive identity as a college student and also the development of a willingness to work hard at difficult tasks (Wyatt, 2011). These are the artifacts that will be measured to gauge the impact of course content on student engagement at the classroom level:

1. My work for this course includes enough preparation for me to feel successful with the assignment.
2. My teacher gives assignments and readings that are relevant to my experiences with the world.
3. The work I do for this class is relevant and connected to the work I do for other classes.

Course content is defined as what a student learns in a course and the materials through which it is learned. For example, content may be a textbook, or assignments that connect the coursework to the outside world or connect the coursework to a career field. The materials used in a course have a direct effect on the classroom climate, as do the teacher's skills in managing the implementation of the course materials. A student's time is very important to them and the use or misuse of time is a critical component of how students perceive the classroom environment (Miller, 2013; Tetler & Baltzer, 2011). Today's student needs to feel a connection to the materials and assignments that are used in a class. It is no longer sufficient to assign something "just because it's good for them." Students need to feel that the assignment is somehow relevant everyday life or to the attainment of their educational goal.

A teacher's pedagogical skills in constructing assignments are also an important element of classroom climate. A teacher's ability to make coursework meaningful as well as entertaining and fun, make all the difference to how the classroom feels. Freeman, Anderman, & Jensen (2007) assert that "a student's sense of belonging may be fostered in settings characterized by effective instruction, including a mastery of meaningful content". It is also a well-documented fact, echoed in the literature, that

community college students arrive in class under-prepared (Bailey, 2009; Navarre, Cleary & Wozniak, 2013; Nitecki, 2011; Tinto, 1997). Effective instruction can contribute to a positive interpretation of the coursework, which makes the overall climate of the classroom a positive one.

Differentiated instruction that utilizes an andragogical, or adult, approach is critical for the engagement of community college students (Murray, 2014; B. Taylor & Kroth, 2009). Students at community colleges have lives that are complex and work more hours than their four-year counterparts (Cohen, 2003; Windham, Rehfuss, Williams, Pugh, & Tincher-Ladner, 2014). To account for these differences, instructors must include real-world, relevant readings and assignments that have application to a student's educational ambitions, which, at a community college, may or may not include a four-year academic degree.

Course content, the materials and assignments that guide learning, are critical elements of engagement. This aspect needs to be part of a well-rounded study measuring students' perceptions of classroom climate. Moreover, the fulfillment of an assignment is not a simple matter for those who are academically under-prepared. Effective course content must not only connect classroom experiences with the real world and/or educational goals, it must also account for possible gaps in necessary background knowledge.

Artifact: Cultural Sensitivity. The diversity of the community college student population is noted in almost every piece of research that addresses the needs of that

population and is discussed and documented in Chapter 1. The cultural nuances and references that diversity brings with it challenge the community college classroom (Wild & Ebbers, 2010; Gasciogne, 2012). In order to engage with the classroom experience, it is critical that students see elements of their home culture reflected within the curriculum. An engaged classroom at the community college level is a classroom that will acknowledge but not accede to any one cultural perspective. A variety of affirmative cultural references and the considerations of cultural orientation in class assignments is key to developing an atmosphere of inclusion.

These are the questions that are designed to gather perceptions cultural sensitivity:

1. My teacher talks knowledgeably about cultures and perspectives other than his or her own.
2. The readings for this class come from a variety of cultural perspectives. .
3. A variety of cultures and/or perspectives are regularly represented in class discussions.

In order to achieve an engaged classroom, it is critical that students perceive an element of cultural sensitivity in the teacher's teaching methodologies. Culturally responsive teaching methodologies are an essential element of engagement (Braden & Smith, 2006; Demirdag, 2015; Gay, 2000; Stanton-Salazar, 2011; Ware, 2006). Chavez (2007) and others discuss the importance not only of cultural understanding, but the need of students to see themselves reflected and validated in readings, assignments, and

class discussion. These dynamics are often lacking for students who do not belong to the dominant culture of the college environment.

Today's community colleges are among the most diverse educational institutions in higher education. Therefore, those classrooms must be inclusive of differences and have the art of managing and embracing cultural differences as a core value in the education of students. One summative statement synthesized from the literature is this: recognizing features of one's own culture builds a feeling of connectedness in classroom climate, as does seeing multiple perspectives on an issue represented. Many studies have been published regarding culturally responsive pedagogy. Gay (2000) discussed the importance of culturally responsive teaching and has been corroborated in numerous climate studies have been conducted on specific cultural populations (Wright, 2015; Crisp, 2010).

Artifact: Peer relationships. Research has identified peer relationships as an important element of engagement. Peer relationships, therefore, is one of the elements of climate that this study seeks to examine. This study defines peer relationships as the interactions and dynamics that exist between the student members of the classroom community. The teacher has only so much control over interactions between students during class time and class members often interact with one another independently of the instructor, particularly in a college environment. The tone and quality of these dynamics and interactions are intimately related to an individual student's perceptions of the classroom climate and, thus, his or her own engagement in the classroom.

The purpose of this study is to establish a correlation between a positive classroom climate and engagement behaviors. What happens between members of the classroom, how they support one another through difficult elements of a course, and how accepted a student feels in the classroom are all elements that should be accounted in order to come to an accurate understanding of classroom climate. These are the elements of peer relationships that are included in this study:

1. The words used by other students are supportive and helpful, not degrading or hurtful.
2. I can contact other students in the class if I need help or if I have a question about an assignment.
3. My contributions to class discussions & assignments are respected by other students in the class.

Many studies have explored the impact of classroom dynamics as an element of climate and found a relationship between “success” and the relationships that the people in the classroom have with one another. Some representative studies of the importance of peer relationships in the classroom include: Estell & Perdue, 2013; Kiefer, Alley, & Ellerbrock, 2015; Makara & Madjar, 2015. Each of these studies, in various ways, call for a focus on promoting a positive peer climate to improve success & engagement. In line with what this research intends to explore, Makara & Madjar (2015) further conclude that fluctuations in goal attainment for students “could be predicted by student’s perceptions of classroom goal structures”. A key conclusion in the Kiefer, Alley & Ellerbrock study corroborates this idea, stating that findings indicate that “peer

support is a critical element of a developmentally responsive learning environment” (Kiefer et al., 2015).

Several studies have carried the idea of the influence of peer relationships on classroom climate into a collegiate environment. Hirschy & Braxton (2004) explore the effects of student “incivilities” on the dynamics of the classroom environment, defining sets of behaviors that both students and faculty find detrimental to academic progress and engagement in the classroom. The study concludes that “negative effects of student classroom incivilities occur within and extend beyond the classroom.”

Freeman et al., (2007) found that encouragement of peer involvement on the part of the teacher fostered a more positive environment in the classroom. The literature reports that peer interactions have an impact on a student’s sense of belonging. A supportive classroom environment leads to higher participation rates, and, in general, tends to be positively correlated to success and a feeling of belonging in the classroom. Hirschy & Braxton (2004) report that “incivilities” in classroom behaviors such as talking out of turn, texting, talking about other students, have a heavy impact on class dynamics. In other words, the more uncomfortable a student is with the other students in the class, the less likely that student is to be engaged on a daily basis and, ultimately, be successful in the class. Additionally, Ciani, Middleton, Summers & Sheldon (2010) and Makara & Madjar (2015) establish a link between engagement and Vygotsky’s social construction of knowledge, citing that the more positive a student’s relationships

are in the classroom, the more likely that student is to fully commit to the classroom experience, remain in the class, and have a stronger overall classroom performance.

Peer relationships are a critical component of this study because a student's relationship with his or her peers in the classroom is an important element of perception. Peer relationships can be positive and supportive, but also have a detrimental influence on student perceptions of the classroom experience. Collecting specific data that accounts for students' perception of their in-class relationships is necessary for a well-rounded study of student's perceptions of classroom climate and its relationship to engagement.

Artifact: Student Autonomy. Autonomy is a critical element of engagement. If an engaged student is a successful student, then a student being able to make his or her own choices about what to read, what topics to write about, and how to fulfill assignments builds a sense of control that is necessary for adult students to develop a sense of control in the academic setting. The following questions are included in this study to account for student autonomy:

1. My teacher offers choices of readings and options about how to fulfill assignments.
2. I have input into the assignments that I am required to complete.
3. I can choose the people in the class that I work with.

As a classroom climate factor, autonomy is defined as the range of choice a student has within the responsibilities of completing course requirements—what to

read, what to write about, how to work with, and how to earn grades in a course.

“Autonomy” is a key element of the Self-determination theory (Deci & Ryan, 2000).

Deci & Ryan’s Self-Determination theory, which has been used as a theoretical framework for many of the studies consulted for this research, generally asserts that that human imagination, particularly when engaged in learning, can be active and engaged, or disengaged and marginalized, largely as a function of the social dynamic in which they develop and operate (Darner, 2009, 2014; Denney & Daviso, 2012; Lynch, Vansteenkiste, Deci, & Ryan, 2011; Taylor et al., 2014; Tetreault, 2013). Self-determination theory specifically explores the socio-developmental conditions that govern intrinsic motivation: competence, relatedness and autonomy. This research postulates that when the elements of Self-determination theory are strong, conditions for optimal learning are present. Intrinsic motivation, in Deci & Ryan’s Self-Determination frame, is what students need to be engaged as active, constructive actors in their own learning. Therefore, the more choices a student has, the more autonomy that student has, and, as the theory goes, the more active engagement. Additional studies expand upon the concept that an “autonomy supportive” environment leads to higher engagement and a clearer, more efficient path to goal attainment (Deci & Ryan, 2000; Evans & Boucher, 2015; McGrath, 2009).

To appropriately measure engagement, a measure of a student’s perception of control and agency within the classroom environment is vital. A student who is given some element of choice in learning materials, assignment fulfillment and other appropriate instructional choices has an automatic active investment in the intellectual

product resulting from that assignment. This study proposes to include artifacts that will measure student's perceptions of choice and autonomy within the classroom environment.

Artifact: Teacher Presence. The relationship between student and teacher has been identified as an important element of engagement and is therefore one of the elements of climate that this study seeks to define and to examine. This study defines "teacher presence" as the relationship that the teacher and student build with one another and the quality of the interactions that teacher and student have in and out of the classroom. The measurement of student perceptions of teacher presence is achieved through the examination of the words and expressions the teacher uses, his or her emotional and physical availability and general demeanor toward students, the institution, and teaching.

These are the questions that are designed to ascertain student perceptions of teacher presence:

1. My teacher provides positive, encouraging feedback on assignments and student contributions to classwork.
2. My teacher has high academic expectations of class participants.
3. I believe my teacher likes me and cares about me as a person.

In terms of engaging in class, research has also found a positive relationship between the actions and choices of the teacher and student learning (Faranda & Clarke, 2004; Frisby & Martin, 2010). Instructors who are able to develop a "rapport" with

students are perceived to be more effective and thus have more engaged and invested students (Frisby & Martin, 2010; Webb & Barrett, 2014). Additionally, instructors who display courteous, connecting, open, and friendly behaviors will be more successful with students (Alberts et al., 2010; Frisby & Martin, 2010; Patrick, Kaplan, & Ryan, 2011; Vallade & Myers, 2014; Webb & Barrett, 2014).

A teacher's presence in the classroom captures the teacher's personal attributes and social relationships with the students. Presence also addresses the student's perception of the teacher's availability outside of class and reputation on campus. In addition to classroom management and academic support, a teacher's personality, social skills, and general attitudes have an influence on the overall classroom climate (Boesch, 2014; Bolkan et al., 2011; Paolini, 2015; Sidelinger & Booth-Butterfield, 2010).

A teacher's attitude toward teaching, his or her enthusiasm for the subject matter, and his or her authenticity as an educator are also important elements of classroom climate that have been identified by the current available literature, encapsulated by the term "rapport". "Rapport" is collectively defined as relationships based on mutual trust and positive mutual attention (Webb & Barrett, 2014). Teacher presence is related to academic support, but is sufficiently noteworthy on its own merits to be measured independently. A teacher's words, how that teacher demonstrates care, and generally offering interest and recognition were cited as rapport building behaviors and are considered as an element of the teacher presence component of this study. Geneva Gay (2002) notes that effective teachers are "warm demanders" who have high academic standards, but display personal caring and concern for students' well-being.

Conversely, teacher presence can also have a negative impact on student engagement. Suarez-Orozco et al. (2015) found that “instructors were far more likely to initiate MAs (Micro-aggressions) than students were, reflecting power dynamics in the classroom (Sue et al., 2009). The researcher’s observations also uncovered the fact that for their study of micro-aggressions, “the comments made by instructors were often sarcastic and laced with their obvious frustration with students”. Most often, the MAs were directed to a specific student rather than directed to the class as a whole. Many of the observed MAs served to convey a sense of low teacher expectations (Alberts et al., 2010; Patrick et al., 2011).

Additionally, Vallade & Myers (2014) discuss a variety of what they call “relational transgressions” (343) and their impact on learning and find that offensive words and perceptions demotivated students and made students less engaged in class. If a student perceives an instructor’s actions to be negative, or in some way compromising to a sense of trust or instructor integrity, that student will experience a distancing from the success goals of the class (Bolkan, Goodboy, & Griffin, 2011; Docan-Morgan, 2011). The role of the teacher as a cultural artifact expands far beyond the teacher’s knowledge base or the fulfillment of professional responsibilities in and out of the classroom (Banfield, Richmond, & McCroskey, 2006; Bolkan et al., 2011).

Engagement Questions. To test the impact of climate on engagement in the classroom, it is also necessary to define what engagement looks like in terms of student behavior. Engagement theory, discussed in a previous section, generally defines

engagement as the investment of time, energy and interest students display in classroom learning. This study proposes that there is a relationship between a positive classroom climate and the personal investments that a student is willing to make in a class. That investment, termed engagement or involvement by Tinto and Astin, is one of the primary indicators of eventual classroom success, finishing a class with a C or better. These are the behaviors identified by research that indicate or suggest a high level of engagement: class attendance, completion of assignments, participation in class discussion, and being willing and able to seek help from the teacher when needed.

The first two behaviors, class attendance and completion of assignments, are not directly addressed as behaviors in the literature to a great extent, but both are inherent in descriptions of engagement behaviors or other sorts of classroom climate and relationship research. Suarez-Orozco, et. al. (2015) note that students who experience classroom interpersonal micro-aggressions will withdraw from the classroom environment. By inference, this means that students who experience adverse conditions in the classroom would either drop the class to curtail the adverse psychological impact of the micro-aggression by would attending class less frequently. Vallade & Myers (2014) make a similar assertion in their study of student perceptions of teacher's "relational transgressions", noting that, depending on the severity of the perceived transgression, that student would display avoidance behaviors, such as not coming to class and not completing assignments. Responding to questions and general participation in discussion is also identified as an engagement behavior. If the climate of a classroom is constructive and conducive to learning, multiple voices are heard and

students are willing to participate and seek help when necessary. (Goodboy & Bolkan, 2009)

Conclusion. The dynamics of classroom climate are challenging to quantify, as climate is largely based on perception. The purpose of this study is to define the significant factors of classroom climate so that the impactful factors of climate can be quantified and analyzed in conjunction with classroom engagement behaviors by means of the Integrated Classroom Climate Survey. The lived experiences of students are malleable and situational, which makes an objective measure of climate challenging.

But if community colleges are to achieve an improvement in the number of students who complete courses and eventually degree and certificate programs, as stipulated by Completion Agenda and Student Success policies, then institutions must come to understand the lived student experience inside the classroom. As discussed in the previous chapters, community college students are, as a demographic group, the least likely to spend time on campus, are older, have more out of class commitments than their 4-year counterparts, commute farther to campus than students who begin an academic career at a four year university. Though there have been a variety of studies completed on various aspects institutional climate, there is little research to date on the lived student experience inside the classroom and its impact on engagement and retention. This review of literature identifies the factors of climate that are critical to student engagement.

Chapter 3

METHODOLOGY

The purpose of this study was to investigate student perceptions of classroom climate factors, the impact that climate has on classroom engagement, and to test whether the most impactful elements of classroom climate are the same across demographic groups. The intent of this chapter is to explain the methodology that was utilized to conduct this study and address the questions that guided the research. The research design, the study sample and the survey instrument will be presented and discussed in terms of their utilization in collecting the study data. The methodology used to analyze each of the research questions will also be presented.

Research Design. The data to support this study was collected by survey. The survey was designed to gather quantitative data regarding the research questions described below, and was analyzed with quantitative comparisons appropriate to the sample size and research question. T-tests, ANOVA, and Pearson correlations were the statistical tests that were performed. The results of these tests will be used to describe the collected responses as appropriate to the research questions that guide this study. These are the research questions that the survey was designed to investigate:

Research Questions

1. *Research Question 1:* What are student's perceptions of classroom climate factors?
2. *Research Question 2:* Which of the classroom climate factors most impact engagement behaviors?

3. *Research Question 3:* Do different demographic groups have differing perceptions of classroom climate factors?

Role of the Researcher. The primary researcher for this study is a full-time instructor at the study site. This survey was not administered to the researcher's registered students. The students who responded to this survey were not previous students of the researcher. Additionally, the researcher did not have a direct role in the collection of the survey data. The researcher visited class sites to explain and promote the survey, but students did not take the survey in the presence of the researcher, thereby ensuring anonymity of the participants and circumventing any unintended influence with regard to the administration of the instrument.

Study Setting. The data for this study was collected at a mid-sized suburban community college in central California. The semester Full Time Equivalent Student (FTES) for the research site is approximately 14,700. This puts the research site district in the relative middle of the 113 community college districts in terms of size.

Description of the Population. The population for this study were students enrolled in 10 sections of an English 1A class in the selected community college. English 1A is the class that is most commonly taken by community college students and is almost universally required to transfer to a four-year university. As such, students enrolled in English 1A provided the most appropriate demographic range in comparison with the demographic of the study site population.

Rationale for Sampling. 154 students were offered the opportunity to participate in the survey, but completion was not compelled and was beyond the

researcher's control. The only criteria necessary for participation in the survey was being able to provide feedback on the student's lived experiences in the classroom.

Data Collection. Each survey was assigned a code and re-sorted upon collection so that responses from individual sections were not clustered. The results of the survey were entered into SPSS with the survey number so that individual responses were connected to documents, but not to an individual class location or specific date of collection.

Protection of the Participants. This survey was conducted anonymously and no student identifying information, such as name, was collected. Additionally, each paper survey form was given an independent random number combination so that the completed surveys could be identified and discussed in a way that separates it from its initial collection group.

Survey Instrument. The survey was created by the researcher on the basis of published studies on classroom and campus climate, such as the CCSE (The Community College Survey of Student Engagement) and is grounded in theory on student engagement. Each of the seven climate criteria is discussed in chapter two, along with its justification, and is presented again under the survey instrument discussion later in this chapter. Each climate area is addressed with three questions to ensure validity of perceptions and results. Each of the four engagement questions is equally grounded in research. The survey instrument contains a demographic section: age, ethnicity, number of units completed, year graduated from high school, commute distance to campus, how many hours worked per week and how many people, other

than themselves, the student cares for per week. According to the literature discussed in chapter 2, these are the factors that most impact success and that distinguish community college students from their four-year counterparts. These will be the necessary demographic elements, therefore, that will form meaningful comparisons and correlations to the climate and student engagement questions of the survey.

Research on classroom climate specifically related to community college students is scarce. Thus, this survey was further developed by considering other research instruments that either asked the same types of questions to a different population or were applied to a different element of climate on a college campus, such as the classroom climate perceptions of a particular population (e.g. women, African-Americans, or LGBT) or the campus climate at large in a collegiate environment, which could be a community college or a four-year institution. Using all of these models for reference, the survey questions were original, developed by the researcher to specifically address the community college classroom environment.

The Integrated Classroom Climate Survey.

This instrument forms a multi-faceted line of inquiry regarding student perceptions of classroom climate and correlates the strength of those perceptions to defined “engagement” behaviors. In addition, the survey was designed to determine if positive student perceptions of classroom climate factors translated into engagement behaviors across demographic groups. The following survey was developed in response to these needs.

Demographic Questions. To address the demographic portion of the research questions, respondents will be asked the following questions:

1. What year did you graduate from high school?
2. What is your gender?
3. What is your ethnicity/race?
4. How many hours a week do you work?
5. How many units are you enrolled in this semester?
6. Other than yourself, how many people are you responsible for caring for?
7. How many units have you completed at Shady Green Community College?
8. How far away from campus do you live?

To answer the demographic questions, students were given increments particular to the question instead of answering the questions free-form to facilitate quantitative analysis. As an example, for the question 5, how many units are you enrolled in this semester, the choices were a) 0-6 units, b) 6-12 units, c) 12-15 units, and d) 15+ units.

Respondent data on these questions will allowed the climate and success questions to be correlated to a student's level of commitment outside of college, a student's workload in college, how recent their academic preparation is, and how likely it is that the student would utilize academic services outside of the classroom. These

demographic questions were discussed in chapter 1 as the demographic factors that most impact the engagement of community college students in the classroom.

Classroom Climate Questions. The following questions have been derived from the literature reviewed in chapter 2 and from considering questions on other climate instruments. These factors have been identified by researchers as the most impactful aspects of community college classroom climate. As a group, these seven factors combine in different shapes and forms, much like a kaleidoscope, to form the individual student perceptions. This survey asked respondents to rate their experience of classroom climate on a Likert scale of 1-10 on the following questions with the following directions: “On a scale of 1-10, 10 being the highest, rate the following statements with how these statements can be applied to your experience of this class”.

Table 3.1:

Climate Factor Survey Questions

<u>Climate Factor</u>	<u>Survey Questions</u>
<u>Academic Support</u> —These questions will measure student perceptions regarding the daily academic support the teacher gives in the completion of classroom tasks.	<ul style="list-style-type: none"> • My teacher makes sure I understand the assignments and I know what is expected of me to fulfill the assignment. • The opinions I state in class are respected by my teachers and the other students in my class. • The teacher has reasonable deadlines and gives students reasonable time to complete assignments.
<u>Course Content</u> —These questions will measure the relevance of the class assignments to the real world and the connections students can make between course content and work outside academics.	<ul style="list-style-type: none"> • I can apply the work I do for this class to my life outside of college. • My teacher gives assignments and readings that are relevant to my experiences with the world. • The work I do for this class is relevant and connected to the work I do for other classes.

Climate Factor	Survey Questions
<p><u>Classroom Management</u>—These questions will measure the students perceptions of the teachers skill in controlling the behaviors of students in the classroom and the teachers public interactions with students.</p>	<ul style="list-style-type: none"> • The conversation in the classroom is focused on academic topics and/or teacher directed activities. • My teacher takes effective steps to minimize distractions to classwork, such as side-chatting and cell phone use. • My teacher demonstrates care when a member of the class does not participate or demonstrates signs of distress.
<p><u>Cultural Sensitivity</u>—These questions measure inclusiveness, sensitivity to cultural differences on the part of the teacher, and the variety of cultural perspectives represented in the course work.</p>	<ul style="list-style-type: none"> • My teacher talks knowledgeably about cultures and perspectives other than his or her own. • The readings for this class come from a variety of cultural perspectives. • A variety of cultures and/or perspectives are regularly represented in class discussions.
<p><u>Student Autonomy</u>—These questions measure the students perception of the range and quality of personal choice offered in the completion of the course outcomes.</p>	<ul style="list-style-type: none"> • My teacher offers choices of readings and options about how to fulfill assignments. • I have input into the assignments that I am required to complete. • I can choose the people in the class that I work with.
<p><u>Teacher Presence</u>—These questions are intended to measure the nature of the personal support and expectations that students experience over the course of completing the course.</p>	<ul style="list-style-type: none"> • My teacher provides positive, encouraging feedback on assignments and student contributions to classwork. • My teacher has high academic expectations of class participants. • I believe my teacher likes me and cares about me as a person.
<p><u>Peer Relationships</u>—These questions measure student perception of the quality of their relationships with other members of the class</p>	<ul style="list-style-type: none"> • The words used by other students are supportive and helpful, not degrading and hurtful. • I can contact other students in the class if I need help or if I have questions about the assignments. • The opinions I state in class are respected by other students.

Engagement Questions. The third part of the integrated classroom climate survey encompasses the behavior of engagement. Theorists Astin (2004), Tinto (1995) and others assert that eventual success in the community college environment is directly

related to what they define as student engagement. This survey attempts to define engagement as a set of behaviors and theorizes, as explained in chapter 2, that a positive classroom climate should beget these behaviors. These are the “student engagement” questions crafted by the researcher and based on student success and engagement research:

EQ1: I attend every class session

EQ2: I complete all assignments

EQ3: I respond to question in class and participate in discussions

EQ4: I talk to my teacher when I need to

Data Analysis. The survey data was arranged so that there were three questions per climate factor, with a possible highest score of thirty for each factor. A composite variable was calculated so that each factor could be understood as a single number.

Research Question 1: What are student perceptions of classroom climate factors. To answer this question, factor responses were individually tallied and a composite variable was created. This composite variable was used to calculate comparison of means and as the basis to rank the strength of student perceptions of the classroom climate factors.

Research Question 2: Which classroom climate factor had the biggest impact on student engagement. Using the composite variable, each factor was correlated against the four engagement questions and the responses were analyzed in terms of significance. A Pearson correlation was used to establish this relationship.

Research Question 3: Do different demographic groups have differing perceptions of classroom climate factors.

The analysis of this data was used to establish significant Pearson correlation, or direct linear relationship, between the reported success of the students and the various climate factors. This correlation was utilized to determine if there was a relationship between specific factors and classroom engagement, as defined in the four engagement questions.

Conclusion. Many researchers call for more studies of climate factors and their impact on the various factors of student success (Benita, Roth, & Deci, 2014; Ciani, Middleton, Summers, & Sheldon, 2010; Trevino & DeFreitas, 2014). Also, researchers have come to the conclusion that there are too few studies on community college classroom climate that exist today and that there is a resulting research gap.(Crisp & Nora, 2010; Patrick, Kaplan, & Ryan, 2011; Rhoades, 2012a; Saenz et al., 2011; Young, 2003). This gap contributes to an incomplete understanding of the factors influencing the engagement and success of community college students in the classroom environment. Although some universal concepts of learning will translate from setting to setting, community college students and their learning environment must be studied as a unique cohort.

Isolating the elements of classroom climate that are the most impactful to learning is critical to building a new pathway to success for community college students. The factors identified in this survey (academic support, classroom management, course content, cultural sensitivity, peer relationships, student autonomy

and teacher presence) are derived from the literature discussed in chapter two. Student perceptions of these factors provide insight into the impact of classroom climate on student engagement, a critical first step in improving retention. This study provides the analysis of the separate classroom climate factors, for their comparison to one another and for their correlation to demographic factors. This analysis, discussed in chapter 4, provides new data that may be used to address the improvement of the classroom experience.

Chapter 4

DATA ANALYSIS

The purpose of this study is to ascertain the impact of classroom climate on community college student's engagement behaviors. Research demonstrates that students who are engaged will display a set of behaviors such as attending classes, completing assignments, participating in classroom discussion and consulting the teacher when they need to. This study seeks to define and explore the classroom conditions, the climate, that lead to these behaviors. The findings yielded by this data are organized in this chapter by the research questions proposed in the first chapter (listed below) and provide data that serve to answer those questions. This study conceptualizes classroom climate as a synthesis of seven factors: academic support, classroom management, course content, cultural sensitivity, peer relationships, student autonomy and teacher presence.

1. What are student's perceptions of classroom climate factors?
2. Which of the classroom climate factors most impact student engagement behaviors?
3. Do different demographic groups have differing perceptions of classroom climate factors?

The data to answer these questions was collected via the Integrated Classroom Climate Survey, the instrument developed in conjunction with this study. The

discussion of the demographic section of this study will be purposefully divided into sections to focus attention on those factors that are particularly impactful in the academic lives of community college students, such as commute distance, life responsibilities, and hours worked, as detailed in chapter 1.

Results

Student Demographics: Gender and Ethnicity. The participants in this survey were students taking English 1A. This study was conducted at a mid-sized suburban community college in the North central valley of California, serving roughly 20,000 students per semester. English 1A was the course chosen to sample because English 1A is the course that almost all students intending to transfer must take early in his or her college career. Thus, English 1A was the most representative single course of the college population as a whole. The survey was distributed to 154 students; 152 students completed the survey, giving this study a response rate of 98%.

Ethnic/race and gender distribution in the sample does not match the institution's population as a whole. In terms of gender distribution, there are 51.9% males in the survey sample, compared to 44.8% at the institution as a whole. Females comprise 47.4% of the sample population and 53.3% of the institution population as a whole. In terms of ethnic and race distribution, the largest demographic represented in the study population was white/non-hispanic, 48.7% compared to 58.48% at the college as a whole, making white/non-hispanics slightly under-represented in this sample. Hispanic students comprised 26.6 % of the sample total and represent 25.93% of the

total student population at the study site. This group is accurately represented in the study sample. The sampling for the remaining demographic groups (African-American, Asian, American Indian/Alaska Native) did not have an N high enough to return a valid sample.

Table 4.1a:

Profile of Student Participants: Gender & Ethnicity

Factor		Respondent #	Study % (N=154)
Gender	Male	80	51.9
	Female	73	47.4
	Unknown or Other	1	
Race Ethnicity	African American	2	1.3
	Asian	11	7.1
	Hispanic	41	26.6
	2+ Races	18	11.7
	American Indian/ Alaska native	2	1.3
	White	75	48.7
	Unknown or Undeclared	5	3.2

Student Demographics: Community College Trends. One aspect of the community college student population that deeply affects overall academic achievement is the life obligations that a student has, such as financial support of family, caring for family members, etc. National data shows that community college students work more hours, are more likely to be the head of a family, and commute farther to school than a typical first year student at a four year university. This study indicates that student life factors at the college were consistent with that national data: approximately 74% of students lived more than 10 miles from the campus, approximately 60% worked more

than 10 hours per week, with approximately 36% working more than 20 hours per week.

The number of hours a student must work per week directly impacts the amount of time that student has to spend on campus activities other than classes. 47% of students take between 6 and 12 units and 42% are full time students, taking 12 units or more. These findings are also consistent with community college students as a whole. This set of factors will be a key component in determining a student's perception of what makes for an engaging classroom experience. The number of people a student cares for and how far that student commutes are also factors that define community college students as a demographic group.

Table 4.1b:
Profile of Student Participants: Community College Student Factors

Factor		Respondent #	Study % (N=154)
Commute Distance	0-5 Miles	40	26
	10-15 Miles	77	50
	More than 15 Miles	36	23.5
Caregiver	None	115	74.7
	1	19	12.3
	2-5	17	11
	More than 5	1	.6
Hours Worked/ Week	I don't have a paying job	45	29.2
	0-10	17	11
	11-20	35	22.7
	20-40	56	36.4
Year Graduated	More than 5 years	21	14
	Within 3-5 years	30	20
	Within 2 years	99	66
Units Enrolled	0-6	15	9.7
	6-12	73	47.4
	12-15	47	30.5
	15+	18	11.7

Student Demographics: Academic Preparation. The majority of respondents were recent high school graduates, with 66% of them graduating within 2 years of taking English 1A and the remaining 34% graduating or finishing high school 3 years or more before completing English 1A. As can be seen in table 4.1b, 66% of the data sample graduated from high school or earned a GED within three years prior to the survey collection, with only 14% graduating more than five years before the collection of the data. One of the primary factors that distinguish community college students

from their four-year peers is the difference in academic preparation prior to college.

Table 4.1c:
Profile of Student Participants: Academic Preparation

Factor		Respondent #	Study % (N=154)
GED Completion	High School Diploma	128	83.1
	GED	21	13.6
	Did not graduate or earn GED	3	1.9
	Still in High School	2	1.3
Units Completed	This is my first semester	38	25
	0-15	53	34
	15-30	42	27
	More than 30	21	14

In terms of academic preparation, community college students are differently prepared because they do not have to meet the admissions standards of a four-year university. Typically, this means that these students do not necessarily have the higher-level English, math and social science courses that are required for admission to a four-year university. In addition, 13.6% of the respondents earned a GED instead of a high school diploma and 3% of the population had neither a GED nor a high school diploma. This data demonstrates the variety of preparation of community college students as a whole.

Research Question #1: What are student's perceptions of classroom climate factors?

Climate Factors

The following discussion will describe the survey results and offer some

interpretation of each question as to its relevance to the classroom experiences of the survey participants. The survey consisted of 21 questions, with three questions for each climate factor. The questions are listed with the data results. Students were asked to rate their experience 1-10, with 10 being the best and 1 being the worst. A composite variable was created for each factor, consisting of the three survey questions noted below in each factor table. This composite variable was used to compute an average mean that will be utilized in ranking the factor perceptions from most important to success to least important to success.

Academic Support. As discussed in chapter 2, the kind of academic support a student receives from the teacher in the classroom has a direct effect upon how successful that student is in the class. But the critical aspect of that support is not as much that it is offered, but how that support is received by the student. Additionally, academic support in the classroom is especially important for community college students in terms of a positive perception of climate. These were the questions that were asked in the survey to determine a student's perception of academic support:

Table 4.2:

Academic Support Factor Results

Survey Question	Mean	Median	Standard Deviation	N
AS1: I understand the assignments and expectations.	8.81	9	1.667	151
AS2: Teacher respects my stated opinions	9.14	10	1.314	152
AS3: Teacher has reasonable deadlines and timelines	8.76	9.5	1.698	152
Cluster Average	8.90		1.559	

The results for this climate factor had the second highest average mean (8.90), indicating that this factor was perceived by students as important to their level of engagement. AS2 presented the highest mean and lowest standard deviation (M=9.14, SD=1.314), suggesting that a sense of trust, that the teacher will be respectful even if his or her opinion is different than the student's, is the most important aspect of academic support in the perceptions of this particular group of students.

Classroom Management. This factor measures student perception of a teacher's skills in regulating and adapting the student behaviors displayed in the classroom, how that teacher manages individuals and facilitates productive class dynamics. A teacher's classroom management skills are critical to student engagement. Since community college students spend almost the entirety of their academic time engaged in the classroom experience, classroom management is a critical factor. These are the questions that were asked on the survey to measure student perception of the teacher's

classroom management skills:

Table 4.3:

Classroom Management Factor Results

Survey Question	Mean	Median	Standard Deviation	N
CM1: Classroom conversation is focused on academic topics and/or activities	8.64	9	1.903	152
CM2: Teacher takes effective steps to minimize distractions	8.34	9	2.171	152
CM3: Teacher demonstrates care when members are disengaged or distressed	8.27	9	2.092	150
Cluster Average	8.41		2.055	

The classroom management cluster was low on the list of average means (8.41), 5th out of 7. This result suggests that the teacher's objective skills in managing the classroom environment are not as impactful to a student's sense of engagement as other, more personal skills that the teacher displays in teaching the course. This finding also presents a higher average standard deviation or difference in answers, indicating a wider variety of response to this question. These results also suggest that management of the group is more important than attention to individuals with CM1, teacher focusing class conversations (M=8.64, SD=1.903) returning the highest single mean of this cluster and CM3, teacher demonstrating care to individuals, returning the lowest single mean in this cluster (M=8.27, SD=2.092).

Course Content. What a student reads in a course and the assignments that a student is asked to fulfill must be meaningful for a student to feel engaged. As

discussed in chapter 2, research has established that engagement is a critical component to success, so if a student does not see the life-relevance of an assignment, then that assignment does not have the value that it might have if there was a direct connection between that students work in a particular course and his or her work or interests in other courses or in the outside world. These are the survey questions that student were asked to determine how connected their coursework was to other courses or the outside world.

Table 4.4:

Course Content Factor Results

Survey Question	Mean	Median	Standard Deviation	N
CC1: I can apply the work I do for this class to my life outside of college	7.88	8	2.282	152
CC2: My teacher gives assignments and readings that are relevant to my experiences with the world	8.21	9	2.195	152
CC3: The work I do for this class is relevant and connected to the work I do for other classes	7.74	8	2.400	152
Cluster Average	7.94		2.292	

This cluster had the lowest average mean of the factors (AM=7.94), indicating that the relevance of course content was perceived to be disconnected from work done for other classes or to the outside world. This climate factor seemed to be the least relevant to respondents' sense of engagement. The responses for this cluster also had a standard deviation of over two for each question, giving it the largest range of answers of the seven factors tested. CC3, the work I do for this class is relevant and connected,

($M=7.74$, $SD=2.400$) These results also indicate that connecting work for this class to other classes, though important with a median answer of 8, was one of the least important aspects of climate.

Cultural Sensitivity. Today's community college population is diverse by every measure: gender, race, age, ethnicity, etc. The population of any class on a community college campus, therefore, is composed of a wide variety of people. To be successful and to make students feel seen and validated, a teacher must display at least an openness to, if not knowledge of, cultural diversity. To help all students develop sensitivity to people different than themselves, this sense of cultural pluralism ideally will be present in readings and assignments. If class work and academic discussion are dominated by one cultural perspective, students who are not included in that cultural perspective may feel isolated, alienated and under-valued in the classroom environment. These are the survey questions that were meant to elicit student perception of the cultural sensitivity of the classroom experience:

Most students in this category perceived their teachers to be culturally sensitive and to bring that sensitivity to class discussions and to the work they assigned in classes.

Table 4.5:

Cultural Sensitivity Factor Results

Survey Question	Mean	Median	Standard Deviation	N
CS1: Teacher talks knowledgeably about cultures and perspectives other than his or her own	8.38	9	2.251	151
CS2: Readings & assignments for this class come from a variety of cultural perspectives	8.50	9	1.847	151
CS3: A variety of cultures and/or perspectives are regularly represented in class discussions	8.45	9	1.886	151
Cluster Average	8.44		1.994	

The cultural sensitivity climate factor was in the middle of the range of average means (AM=8.44), indicating that this factor was more impactful to some student's sense of engagement than others. The standard deviation for this factor also displayed a range, suggesting that this factor would be somewhere in the middle in terms of importance to students. The overall results of the survey suggest that the more relationship-centered factors (academic support, teacher presence, peer relationships) are perceived to be more of a factor in engagement than what particular assignments students are given. Additionally, the placement of cultural sensitivity in the middle of the rankings might suggest that this factor is more important to some students than others, thus some students ranked it higher than others. The standard deviations for this cluster range from 2.251 to 1.847

Peer Relationships. The relationships between the students in the class will typically "make or break" the classroom experience, especially in a community college.

If a student does not feel accepted and respected by the other students in the class, if a student feels subjected to ridicule or disrespect, the student's engagement in that class will be impacted. Experiences with classmates are a key component of the engagement experience. These survey questions were provided to measure that aspect of classroom perception:

Table 4.6:

Peer Relationships Factor Results

Survey Question	Mean	Median	Standard Deviation	N
PR1: The words used by other students are supportive and helpful, not degrading or hurtful	8.81	9	1.632	151
PR2: I can contact other students in the class with questions or for help	8.42	9	2.234	151
PR3: The opinions I state in class are respected by other students in the class	8.99	10	1.364	151
Cluster Average	8.74		1.743	

Peer relationships ranked third in importance when measured by average mean (AM=8.74) and displayed a standard deviation of less than two for two of the three questions, with an average standard deviation of (ASD=1.743) Taken together with Teacher Presence and Academic Support, Peer Relationships represents the third of three factors that represent the importance of relationships inside the classroom. Positive interpersonal dynamics, therefore, seem to be the critical factor that students need to feel engaged in the classroom.

Student Autonomy. As a group, community college students tend to be older, have more life obligations and have more of a variety of career aspirations than a freshman at a university. This makes the element of perceived choice in assignments and working conditions important for community college classroom engagement. The larger the range of choice in what to read and how to fulfill the course requirements, the more “buy-in” a student will have to the course, particularly at the community college level. These are the questions that were provided to students to measure their sense of autonomy in the class:

Table 4.7:

Student Autonomy Factor Results

Survey Question	Mean	Median	Standard Deviation	N
SA1: My teacher offers choices of readings and options about how to fulfill assignments	8.07	9	2.262	151
SA2: I have input into the assignments that I am required to complete	8.32	9	2.174	151
SA3: I can choose the people in the class that I work with	7.62	8	2.581	151
Cluster Average	8.00		2.339	

Student autonomy, along with course content, was one of the factors rated lowest by students taking the survey (8.00). Again, this result emphasizes the idea that relationships are the most important aspect of a student’s perception of engagement. What choices a student has over the course of an assignment, which is what the Student Autonomy factor is designed to measure, matter less than the relationships in the classroom, as reflected in the teacher presence, academic support, and peer relationships

factor questions.

Teacher Presence. A critical aspect of student perception is how a student perceives the teacher. If students perceive a teacher to be open and caring, to like him or her personally, to care about them as a person as well as a student, that student will work harder and be more successful with that teacher. These were the survey questions that were designed to ascertain how the student's perception of the teacher's presence in the classroom impacted success:

Table 4.8:

Teacher Presence Factor Results

Survey Question	Mean	Median	Standard Deviation	N
TP1: Teacher provides positive, encouraging feedback	8.81	10	1.832	151
TP2: Teacher has high academic expectations of class participants	9.10	10	1.450	151
TP3: I believe my teacher likes me and cares about me as a person	8.95	10	1.747	151
Cluster Average	8.95		1.676	

This response cluster returned the highest average mean (AM=8.95). This set of questions centered on student's perceptions of their teacher's personality and how the teacher's personality or presence influenced that student's perception of success. This response, taken in conjunction with the other highest mean responses, would indicate that relationships in the classroom matter more than content in terms of a

student's perception of success and engagement.

Factor Correlations. Bivariate correlations were run between the seven established factor variables and the factors, listed and displayed in table 4.9 below, were found to contain positive correlations among factors. Some factors, such as Academic Support and Teacher Presence, were highly correlated with the other factors. Other factor variables, such as Peer Relationships displayed moderate to weak correlations with the other variables, though all of the factors were found to have some significant correlation.

Table 4.9:

Factor Correlation Results

		AS	CC	CM	CS	PR	SA	TP
Academic Support	Pearson	1	.741**	.606**	.651**	.463**	.578**	.758**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	151	151	150	150	150	150	150
Course Content	Pearson	.741**	1	.650**	.543**	.396**	.557**	.672**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	151	152	150	151	151	151	151
Classrm Manage	Pearson	.606**	.650**	1	.561**	.472**	.592**	.734**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	150	150	150	149	149	149	149
Cultural Sensitivity	Pearson	.651**	.543**	.561**	1	.357**	.439**	.560**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	150	151	149	151	151	151	151
Peer R. ships	Pearson	.463**	.396**	.472**	.357**	1	.493**	.503**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	150	151	149	151	151	151	151
Student Autonomy	Pearson	.578**	.557**	.592**	.439**	.493**	1	.663**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	150	151	149	151	151	151	151
Teacher Presence	Pearson	.758**	.672**	.734**	.560**	.503**	.663**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	150	151	149	151	151	151	151

These correlations speak to the finding emerging from the perception data that the teacher is the most impactful factor in classroom climate. The two factors that have the highest degree of correlation with the other factors and with one another are

academic support and teacher presence. Teacher presence and academic support indicate a .758, considered to be a strong correlation and is the highest correlation value found by this survey. Academic support was also highly correlated with course content, another variable highly related to the skill and choices of the teacher. The second highly correlated value with teacher presence was classroom management, also another factor associated with the teacher's choices and skills in managing the dynamics of the classroom. While the guidance and help a student receives from a teacher and the teacher's personality and degree of expectation of students need to be understood as separate factors of climate, it is clear from this data that their impact is a synthetic or inter-related phenomenon.

Research Question 1 Conclusion. Research question one measured what student perceptions were of the established classroom climate factors. The results indicate that relationships among the classroom community is the element of the classroom experience that makes a student feel the most engaged. Teacher presence, academic support, and peer relationships had the highest average means, respectively, and the low standard deviations, indicating a high degree of uniformity among responses. To corroborate this finding, the two questions that used the word "respect" (AS2: Teacher respects my stated opinions & PR3: The opinions I state in class are respected by other students in the class) returned the two of the highest single means and lowest standard deviations (M=9.14, SD=1.31 and M=8.99, SD= 1.364, respectively). Though what a student studies (course content) and student range of choice in assignments (student autonomy) are important, 7.94 average mean and 8.01

average mean on a scale of 10, these factors are not as important to a student's sense of engagement as who is in class with that student and how the teacher interacts with the class.

Research Question 2: Which of the classroom climate factors most impact student success behaviors?

Students need to do certain things to be successful and the daily challenge of teachers is how to shape and guide classroom experiences so that those behaviors are displayed and fostered. The third section of the integrated classroom climate survey seeks to quantify those behaviors. According to theorists Vincent Tinto, Alexander Astin and others, engagement in the classroom environment is vital to a student's success behavior, defined as completing classes in a given semester with a C, persisting to the next semester, and completing an educational goal such as earning a degree or certificate. Students were asked four questions created to capture a report of a student's behavior.

Engagement & Success Factors

Engagement Factor Results. The theory underpinning this survey assumes a relationship between the perceptions of classroom experiences and the efficacy of those perceptions in producing and encouraging behaviors that are displayed in the academic lives of students who complete classes, attend college for subsequent semesters and eventually complete a degree or certificate path. In other words, if a student has a positive classroom experience, that student is more likely to be successful.

Table 4.10:

Engagement Factor Descriptive Statistics

Survey Question	Mean	Median	Standard Deviation	N
EQ1: I attend every class session	8.72	9	1.45	152
EQ2: I complete all assignments	8.71	9	1.372	152
EQ3: I respond to question in class and participate in discussions	8.45	9	1.767	152
EQ4: I talk to my teacher when I need to	9.13	10	1.575	152

These results indicate that each of these behaviors is something that students reported doing in fairly high numbers. The mean is high between 8.71 and 9.13 out of 10 and the standard deviation is less than 2 in all cases, indicating that the results of these questions did not vary much from student to student on a scale of 10.

Table 4.11:

Engagement Factor Summary Responses

Survey Question	0-4		5-7		8-10	
	#	%	#	%	#	%
EQ1: I attend every class session	2	1.3	27	17.7	123	80.9
EQ2: I complete all assignments	1	.6	29	19	122	80.2
EQ3: I respond to question in class and participate in discussions	6	3.9	29	19	117	77
EQ4: I talk to my teacher when I need to	4	2.6	14	9.2	134	88

Respondents were asked to respond to a set of basic questions that asked them about their engagement in the class which, according to research, should lead to overall retention, persistence and degree completion. All of the responses rated 77% or higher, confirming the above descriptive statistics and indicating that all of the questions were perceived to be important to engagement and success.

Correlation coefficients were conducted between the four “success” questions, the behaviors that describe engagement, and the seven classroom climate factors. Essentially, this research questions seeks to establish a correspondence between what a student perceives in terms of classroom climate and what behaviors that positive perception will generate. If a student is said to be engaged, that student attends classes, complete assignments, will participate in class discussion and will talk to their teachers when they need to.

Engagement Question 1 Results.

Table 4.12:

Engagement Question 1 Factor Correlations

		N	AS	CC	CM	CS	PR	SA	TP
EQ1 Attend Every Class	Correlation	1	.201*	.133	.030	.041	.232*	.095	.197*
	Significance		.014	.103	.716	.617	.004	.245	.015
	N	152	150	151	149	151	151	151	151

According to this data, there are only weak, if any, correlation between attending class and engagement/success behaviors. The correlations above indicate a weak correlation between academic support (.201), peer relationships (.232) and teacher presence (.197). This finding supports the supposition of this study that community college students find the best support in the classroom and find value in their relationships. Peer relationships had the highest correlation with attending classes, suggesting that time spent with classmates provides a comfort level that leads to engagement and eventual success.

Engagement Question 2 Results.

Table 4.13:

Engagement Question 2 Factor Correlations

		N	AS	CC	CM	CS	PR	SA	TP
EQ2 Complete All Assignments	Correlation	1	.362**	.250**	.111	.255**	.168*	.193*	.221**
	Significance		.000	.002	.177	.002	.039	.017	.006
	N	152	150	151	149	151	151	151	151

According to the results of this correlation, climate had a broader impact on completing all assignments. The correlations were weak, ranging from .168 (peer relationships) to .362 (academic support). As discussed previously in this chapter, respondents were asked three questions that were rated 1-10 went into the composite variable that was tested in the correlation calculation. These were the questions that were asked:

1. My teacher makes sure I understand the assignments and I know what is expected of me to fulfill the assignment.
2. The opinions I state in class are respected by my teachers and other students.
3. The teacher has reasonable deadlines and gives students reasonable time to complete assignments.

These questions speak directly to students developing a sense of capability in completing academic work.

Engagement Question 3 Results.

Table 4.14:

Engagement Question 3 Factor Correlations

		N	AS	CC	CM	CS	PR	SA	TP
EQ3 Respond in Class	Correlation	1	.086	.150	.088	.043	.130	-.003	.051
	Significance		.294	.067	.284	.604	.111	.972	.532
	N	152	150	151	149	151	151	151	151

None of the factors listed in correlation to the above question, responding in class, presented a significant correlation. This suggests that responding to a teacher's question or class discussions is not perceived by this group of students to be a contributing factor to engagement. This finding implies that there are ways to be engaged in class work without having to respond directly to open class discussions.

Engagement Question 4 Results

Table 4.15:

Engagement Question 4 Factor Correlations

		N	AS	CC	CM	CS	PR	SA	TP
EQ4 Talk to Teacher	Correlation	1	.431**	.274**	.265**	.457**	.257**	.291**	.464**
	Significance		.000	.001	.001	.000	.001	.000	.000
	N	152	150	151	149	151	151	151	151

All results on this factor displayed a significant correlation. The correlations with the factors were all moderate to weak, but the questions that indicate the connection between the student and the teacher, showed the strongest correlation. Teacher presence showed the highest correlation ($r(151) = .464, p < .00$), suggesting that the interpersonal skills of the teacher are the most impactful factor in developing positive engagement behaviors.

Engagement Questions Conclusion. Though it is important to note that all the factors were important, each rating at least an average of a 7.9 on a scale of 10, the “relationship” factors seemed to be the most important. Teacher presence, Academic Support, and Peer Relationships were the top three in terms of average and the more objective content-delivery related factors, student autonomy and course content, were rated at the bottom by students in terms of their perceived importance to engagement.

Research Question 3 Do different demographic groups have differing perceptions of classroom climate factors?

The third line of inquiry for this survey explored differing perceptions of climate factors between demographic groups. Community colleges students are a diverse group and it would follow that their perceptions of the lived classroom experience would differ according to demographic makeup. This section of the results will highlight significant differences between perceptions and describe the classroom factors that are reported by the respondents to have a disparate impact on respondents. An ANOVA was run between selected demographic groups and the climate factors to test whether there was a statistical difference between the perceptions of any group with a large enough sample size.

Table 4.16:

Gender V Factors ANOVA Results

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Academic Support	Between Groups	48.044	2	24.022	1.528	.220
	Within Groups	2327.360	148	15.725		
	Total	2375.404	150			
Course Content	Between Groups	100.171	2	50.086	1.360	.260
	Within Groups	5488.033	149	36.832		
	Total	5588.204	151			
Classroom Management	Between Groups	28.264	2	14.132	.505	.605
	Within Groups	4115.069	147	27.994		
	Total	4143.333	149			
Cultural Sensitivity	Between Groups	54.451	2	27.226	1.017	.364
	Within Groups	3963.324	148	26.779		
	Total	4017.775	150			
Peer Relationships	Between Groups	122.383	2	61.191	3.594	.030
	Within Groups	2519.962	148	17.027		
	Total	2642.344	150			
Student Autonomy	Between Groups	118.187	2	59.093	1.813	.167
	Within Groups	4822.807	148	32.587		
	Total	4940.993	150			
Teacher Presence	Between Groups	44.577	2	22.288	1.159	.317
	Within Groups	2846.218	148	19.231		
	Total	2890.795	150			

The demographic sample for this survey was males (51.9%) and females (47.4%). The ANOVA test returned only one statistically significant finding in peer relationships ($p=.03$). This suggests that, for women, the people in the classroom make a difference in women's perception of a positive classroom climate. This finding would also reinforce the larger finding of this study that relationships are the most important factor of engagement for students. Men and women did not perceive any of the other factors differently in terms of impact on perceptions of positive classroom climate.

Table 4.17:

Ethnicity V Factors ANOVA Results

		Sum of Squares	df	Mean Square	F	Sig.
Academic Support	Between Groups	49.014	6	8.169	.506	.803
	Within Groups	2326.390	144	16.155		
	Total	2375.404	150			
Course Content	Between Groups	217.556	6	36.259	.979	.442
	Within Groups	5370.648	145	37.039		
	Total	5588.204	151			
Classroom Management	Between Groups	82.477	6	13.746	.484	.819
	Within Groups	4060.856	143	28.398		
	Total	4143.333	149			
Cultural Sensitivity	Between Groups	254.323	6	42.387	1.622	.145
	Within Groups	3763.452	144	26.135		
	Total	4017.775	150			
Peer Relationships	Between Groups	74.782	6	12.464	.699	.651
	Within Groups	2567.562	144	17.830		
	Total	2642.344	150			
Student Autonomy	Between Groups	171.608	6	28.601	.864	.523
	Within Groups	4769.385	144	33.121		
	Total	4940.993	150			
Teacher Presence	Between Groups	28.414	6	4.736	.238	.963
	Within Groups	2862.380	144	19.878		
	Total	2890.795	150			

The comparison of means that was run on this data set does not indicate a significant relationship between ethnicity groups and the classroom climate factors., returning a p value of no less than $p=.145$ for cultural sensitivity. This result could be attributed to the high correlations between factors, discussed previously. It should also be noted that there were only two groups that had a sample size large enough to test a comparison of means, whites and Hispanics. The other segments identified in the survey, African-Americans and Asians, did not present a large enough sample size to be eligible for this test. This finding might also suggest that the experience of being a student, when cultural sensitivity is high and is considered inclusive, is more critical in a classroom setting than a perception of a given climate factor. If the level of engagement is high, then perceptions among class members may normalize, making class members more likely to have a similar perception despite belonging to different cultural or ethnic groups.

Summary of Findings. This chapter presents the data collected by the Integrated Class Room Climate survey and communicates those findings through various statistical tests: correlation and comparison of means, using . Also as a part of the presentation of data, means were averaged as a description of which of the factors were more or less important to students, as indicated by the survey results. These respondents found the factors important in the following order: Teacher Presence, Academic Support, Peer Relationships, Cultural Sensitivity, Classroom Management, Student Autonomy, and Course Content. The factors themselves were also found to be highly correlated with one another, suggesting the possibility that the perception of climate does not divide

into distinct categories that can be independently measured. The research question regarding demographics found that there was not a significant difference in perceptions except for peer relationships.

Chapter 5:

SUMMARY AND CONCLUSIONS

Overview. The purpose of this study was to examine the impact of classroom climate on California community college students' classroom engagement behaviors. Recent changes to education policy in California, specifically the Student Success Act, make classroom engagement not only a sound pedagogical goal, but relevant to other institutional considerations, such as budgets and accreditation standards. One important question that institutions struggle with is how to define "success" in the classroom. The ultimate goal then becomes translating that knowledge into practices that encourage students to engage. Research reviewed for this study demonstrates that students who are engaged in the classroom are students who are successful in that environment. Constructive engagement results from an overall positive classroom climate. The challenge of studying climate is utilizing a mechanism that will allow student perceptions to be identified in discrete terms. . This study presents climate as a disaggregated concept, a kaleidoscope of separate factors, that can be analyzed in terms of student engagement behaviors.. The Integrated Classroom Climate survey was developed to gather classroom climate and engagement data that would answer these three research questions:

1. What are student's perceptions of classroom climate factors?
2. Which of the classroom climate factors most impact student engagement behaviors?

3. Do different demographic groups have differing perceptions of classroom climate factors?

Within the community colleges, “success” is a longitudinal concept. When institutions say they are taking measures to improve success, they are generally referring to “the completion agenda” established in California by the Student Success Act of 2012. By that measure, students who complete a stated educational goal within five semesters are considered “successful”. Educational goals are typically the completion of a two-year degree or certificate and/or transfer to a four-year institution. In the simplest terms, community colleges need more students to complete an educational goal in a shorter period of time.

Research, detailed in chapters one and two, demonstrates that community college students, as a group, are distinct from their four-year university counterparts in terms of the life commitments they have, the distance they commute, their age, and other demographic and cultural factors. Due to the combination of these factors, community college students also participate demonstrably less in campus activities and utilize campus services far less frequently than their four-year counterparts. These facts emphasize the idea that the academic experiences of community college students occur almost exclusively in the classroom. In short, for the community college student, educational challenges are met or not met based on the interactions among the individuals in the classroom.

Theoretical Frameworks. Climate studies are, by their nature, abstract. All members of a community can perceive a climate, but precisely defining the elements of

that climate is challenging. The purpose of this study was to develop concrete factors of climate as disaggregated components and then utilize them to explain engagement behaviors. In order to support this approach, the framework developed in study incorporates the work of three theorists.

Edgar Schein is a theorist whose work concentrates on measuring organizational culture. Schein's body of work postulates that intangible aspects of culture are represented by the artifacts produced by that culture. If researchers examine words that are said, work product, and other tangible items created by the culture being studied, assumptions and inferences can then be made regarding the beliefs and values of the group. For example, the value of "respect" is typically stated in an instructor's syllabus as a value of the course. Since a course syllabus is a typical document created to establish classroom policies and norms, the syllabus could be considered an "artifact". Every expression of respect in the room is therefore a manifestation of that expressed value. In this study, the value of "respect" is part of the teacher presence cluster and the peer relationships cluster. Essentially, Schein's theories provided this research with a mechanism to define the intangible elements of classroom climate so that these elements could be quantified, compared and ranked.

From the realm of educational theory, Alexander Astin and Vincent Tinto present theories of student engagement and disengagement that are grounded in the behaviors of college students generally. Tinto also provides insight into community college student behavior in particular. Tinto and Astin both assert that the quality of a student's engagement is an integral component of that student's overall success. Astin

describes this phenomenon as “involvement” and postulates that involvement must be continuous, can have qualitative and quantitative aspects. Additionally, the quality of a student’s “involvement” is directly related to invested effort on the part of the student.

Tinto concurs with Astin’s ideas, believing that students must feel a sense of connection or “belonging” to their educational institution, both in and out of the classroom, so they will finish classes, persist to the next semester and eventually achieve an educational goal. If a student does not have this sense of belonging, then that student is at risk of “departure”. Both Tinto and Astin, however, address these issues at the institutional level. The contribution of this study is that it brings the engagement theory of Tinto and Astin into a classroom setting, illustrated by the four engagement questions (attending class, completing assignment, participating in class discussion, talking to teachers). By using the frameworks and models of Schein, Astin and Tinto in conjunction with one another, this study defines and considers the factors of classroom climate in relation to the kinds of engagement behaviors that students must develop to demonstrate engagement in the classroom.

This following discussion will confirm that the findings of this study are consistent with greater research literature. In their 2014 report, “Maximizing Data Use, Philips & Horowitz make the following statement: “colleges are struggling to identify relevant data and to mobilize staff to review student information that can lead to action, changes to policy and practice that improve student completion. (p. 17).

Interpretation of Findings. Research question 1 asked what are student perceptions of classroom climate factors. One of the major findings of this question

indicated that all factors were important to students, each demonstrating almost an 80% or higher finding of importance and small standard deviations.

The major finding of research question 2, which examined which climate factor most impacts engagement, showed that talking to the teacher had a significant correlation across all seven classroom climate factors, listed here in order of importance according to the data: teacher presence, academic support, peer relationships, cultural sensitivity, classroom management, student autonomy, and course content. This finding suggests that idea that the a good teacher is one of the most important single factors of engagement in the perceptions of students.

Research question 3 explored the possibility that some climate factors might affect one demographic group more than others. The sample for this study did not have a high enough sample size N to return valid findings in all categories, but women respondents indicated a higher r value for peer relationships than men. The other factors did not demonstrate a statistical significance.

Another major finding of this investigation was that, in most cases, there were higher correlations between the factors themselves than between an individual factor and the established engagement behaviors. As an example, teacher presence and academic support yielded a correlation of ($r=.758$), the most significant correlation found in this data set. The most significant correlation between any of the climate factors and the engagement behaviors was teacher presence with engagement question 4: talking to the teacher ($r=.424$). This finding suggests that the overall experience of

the student is more blended, more of a composite than a set of identifiable, discrete set of experiences.

Overall, climate factors that centered on relationships returned the highest average means in this data set. Consideration of the data as a whole suggests that students perceive their own engagement in terms of belonging: How much they like their teacher (teacher presence), their connection with the other people in the class (peer relationships) and the quality of the help they get from the teacher and, to a lesser extent, from the institution in the classroom context (academic support). Though there are different facets of belonging, student perceptions of their own engagement are most distinctly defined by how they feel about the people who share their educational experiences. This data suggests that the relationships in the room are the most critical in terms of academic engagement.

Implications for Policy. Institutions are mandated by state policy, e. g. the Student Success Act, to improve overall student success, which means the percentage of students who meet the definitions of success must improve from year to year. Institutions who do not meet these requirements will experience decreases to funding, as well as not meeting other sorts of institutional accountability measures. To address this reality, there are many programs that focus on various aspects of success and improvement institutionally, but there are few that address this issue from inside the classroom. This study established a methodology to remedy that research gap.

Another implication for this study is the supports it has the potential to provide support for under-prepared students. The community colleges accept all those who can

benefit, via the Master Plan for Higher Education, yet all students must meet the definitions of “success”, both in the classroom on a daily basis, and later to complete the course successfully and institutionally, by declaring and completing an institutional goal. This contradiction can add additional pressures for students who are already overburdened with life obligations, but timely interventions that measure climate can provide insight for teachers about avenues that may provide assistance. Additionally, an institutional focus on classroom engagement is a possible policy approach that can address the needs of these vulnerable students.

There is also state policy that mandates professional development for community college faculty in terms of a flexible service calendar. Districts work a certain number of professional development hours into faculty contracts. Districts incorporate these policies in different ways, but flexible days offer institutions a policy mechanism to offer professional development opportunities that will help teachers develop skills and assignments informed by climate data that will benefit students.

Implications for Practice. Generally speaking, when a person graduates from an accredited university with a Masters Degree in an academic subject, that person is qualified to teach at a community college in that discipline. And that is how many community college teachers begin their careers. This means that there is no preparation in the art of teaching before being placed in the situation of guiding the most vulnerable of students in their learning. Finding a remedy to this situation is one of the most critical implications of this study. Institutions need to invest in professional learning opportunities that will allow faculty to learn strategies to incorporate and or enhance

facets of the engagement factors into daily classroom practice so that students can experience increasing engagement in the classroom environment. This is not only an implication of this study, but a recommendation that is called for by engagement theory as a body. Tinto (2012), Astin (2003) and many other educational thinkers have also called for professional learning around student involvement and engagement.

Another implication for practice is the ease of gathering actionable climate data. The Integrated Classroom Climate Survey offers many new avenues for gathering perceptions of classroom dynamics among a given set of students. One of the issues with climate research in general is that the data is historical in nature. The subjects of climate research are offering perspectives that, while they may be insightful and fruitful, are the perceptions of a group of people who are now beyond the reach of institutional or classroom interventions that may improve the experience. This methodology of an in-class survey has the potential of providing institutions and policy makers current data about current students.

One valuable implication for practice emerging from this study is that it allows for the incorporation of the student voice into the conversation, allowing researchers and teachers to be both timely and student-centered. Institutions have many conversations about student success, but without including students. This study allows for students to have a voice in the shaping of the programs and services that impact them, those will make a difference in their progress. These results should be shared and discussed with students so that they can give input on what they, themselves, find

important. In addition, the results should be shared with their institutions to broaden the conversation regarding student engagement and overall success.

Another implication of this study for practice is the ability to document diversity perceptions and misperceptions. Exploring aspects of diversity that may have a potential effect on classroom engagement is always important and this study provides a tool to explore that. Asking students what their perceptions are yields a personalization of results that allows institutions and student advocate groups to design new programs that will impact student engagement on the classroom level and, thus, increase overall student retention. This methodology allows climate to be studied from whatever perspective future researchers might find fruitful to answer their critical questions about the relationship of climate to engagement behaviors.

Limitations of the Study. The data for this survey was collected in a transfer level English course. But this provides insight into only one manifestation of climate. Students in a transfer level course, particularly a course that is a pre-requisite for other courses, will have a certain set of demands from their course work and their teacher. Students in a nursing program, for example, may have a different set of demands. One of the findings of this study was that relationships were important and course content was not considered as important by this particular set of students. Students, such as nursing students, whose professional preparation depends on the content of the class, may present a different result in terms of which aspect of climate is most important to them. Since the data did not include other types of students, this analysis does not address these possible findings.

Another notable limitation of this study is linking the data gathered from the survey to a meaningful discussion of overall student success. This study provides a snapshot of how students are experiencing climate in an individual classroom at one moment in time. This is important, as this study has discussed, because if the vast majority of a student's experience is in the classroom, then those responsible for student success, on any level, need to know how students are interpreting their classroom experiences. What this study does not account for, however, is the research link to overall success. Do positive classroom experiences translate into higher grades? Are student who are feeling positive about their teacher more likely to return the next semester? Is there a correlation between a positive classroom experiences and the length of time it takes a student to complete an educational goal? Since this study is not longitudinal in nature, these answers are beyond the scope of this study.

A further limitation of this research was that, due to sample size, the findings on demographic differences were too narrow for a robust discussion. The demographic analysis of the data revealed that whites and Hispanics had a high enough sample size to interpret a statistically meaningful, generalizable conclusion related to demographics. Ideally, this study should be expanded to a sample size large enough to include African-Americans, Asians, and other ethnic groups. Since this is a study that was developed for a community college student population, students with developmental disabilities, educational disadvantages, economic disadvantages would also be appropriate demographic groups to study.

Recommendations for Further Study. While this study was conducted in one kind of class (transfer-level English) and was therefore limited in its scope, this also provides an opportunity for further climate research. Students in those courses may perceive climate differently than students on a transfer path . It is important that researchers can identify individual factors of climate and utilize each as a lens to describe the classroom experience, so that factors of climate can be used to improve various aspects of the student experience. For example, if teacher presence is important, is it equally important to career and technical education students and transfer students? Considering the importance of professional learning for career and technical education students, it might make sense to explore classroom climate from a course content perspective, which could be accomplished using the methodology this study provides.

Institutions can utilize this methodology to generate data for staff development purposes that explores these factors in a systematic way that will contribute to the improvement of engagement. Groups of faculty and staff can then concentrate on what their institutions can do to understand and improve the classroom experience for students.

Conclusion. Institutions are accountable for student success, which includes improvements in completion rates and degree attainment. Improvements in budget allocations are now dependent on an improvement in these numbers and all levels of institutional faculty and staff are responsible for working toward this goal. As the community college system grapples with this new reality, it is imperative that new

methodology be developed that addresses these goals. The data from this study addresses one avenue of improvement: student perceptions of classroom experiences and their impact on classroom engagement.

This study provides a new methodology that contributes to this current conversation regarding increasing the kinds of student engagement that lead to completion. This methodology allows for the student voice in terms of what is important to engagement in learning and, overall, to institutional improvements for success.

APPENDIX 1: The Integrated Classroom Climate Survey

Integrated Classroom Climate Survey

Demographic Questions

Please answer the following questions to the best of your ability by circling the best response.

1. What year did you graduate from high school?	<input type="text"/>	I earned my GED	I did not graduate from high school or earn my GED	I am still in high school
	Write Year			
2. What is your gender?	M	F	Other	Decline to state
3. What is your ethnicity/race?	African-American	Asian	Hispanic	2+ races
	Amer Indian/ Alaska Native	Filipino	White	Unkno wn
4. How many hours a week do you work?	I don't have a paying job	0-10	11-20	20-40
5. How many units are you enrolled in this semester?	0-6	6-12	12-15	15+
6. Other than yourself, how many people are you responsible for caring for?	0	1	2-5	More than 5
6. How many units have you completed at Sierra College?	This is my first semester	0-15	15-30	More than 30
7. How far away from campus do you live?	0-5 miles	10-15 miles	More than 15 miles	

Please turn to the next page

Classroom Climate Questions

On a scale of 1-10, 10 being the highest, rate the following statements with how these statements can be applied to your experience of this class.

- | | | | | | | | | | | |
|--|----|---|---|---|---|---|---|---|---|---|
| 1. My teacher makes sure I understand the assignments and I know what is expected of me to fulfill the assignment. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2. The opinions I state in class are respected by my teachers and the other students in my class. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3. The teacher has reasonable deadlines and gives students reasonable time to complete assignments. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 4. I can apply the work I do for this class to my life outside of college. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 5. My teacher gives assignments and readings that are relevant to my experiences with the world. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 6. The work I do for this class is relevant and connected to the work I do for other classes. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 7. The conversation in the classroom is focused on academic topics and/or teacher directed activities. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 8. My teacher takes effective steps to minimize distractions to classwork, such as side-chatting and cell phone use. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 9. My teacher demonstrates care when a member of the class does not participate or demonstrates signs of distress. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 10. My teacher talks knowledgeably about cultures and perspectives other than his or her own. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 11. The readings for this class come from a variety of cultural perspectives. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 12. A variety of cultures and/or perspectives are regularly represented in class discussions. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 13. The words used by other students are supportive and helpful, not degrading or hurtful. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 14. I can contact other students in the class if I need help or if I have a question about an assignment. | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

15. The opinions I state in class are respected by other students in the class.	10	9	8	7	6	5	4	3	2	1
16. My teacher offers choices of readings and options about how to fulfill assignments.	10	9	8	7	6	5	4	3	2	1
17. I have input into the assignments that I am required to complete.	10	9	8	7	6	5	4	3	2	1
18. I can choose the people in the class that I work with.	10	9	8	7	6	5	4	3	2	1
19. My teacher provides positive, encouraging feedback on assignments and student contributions to classwork.	10	9	8	7	6	5	4	3	2	1
20. My teacher has high academic expectations of class participants.	10	9	8	7	6	5	4	3	2	1
21. I believe my teacher likes me and cares about me as a person.	10	9	8	7	6	5	4	3	2	1

Success Questions

On a scale of 1-10, 10 being the highest, rate the following statements with how these statements can be applied to your experience of this class.

1. I attend every class session.	10	9	8	7	6	5	4	3	2	1
2. I understand and complete all assignments I am given.	10	9	8	7	6	5	4	3	2	1
3. I regularly respond to class discussions with original contributions.	10	9	8	7	6	5	4	3	2	1
4. I can talk to my teacher about my performance and/or my grade in the class when I need to.	10	9	8	7	6	5	4	3	2	1

Response Question:

For the purposes of this research, classroom climate is defined as the overall feeling and mood in the classroom. Considering that definition, what is the most important element of classroom climate to you as a student? Does a positive classroom climate make you feel more successful?

Please do not include names or class titles in your response.

Would you be willing to participate in a focus group to follow up on your responses to this survey?

Yes

No

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