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Creating a Strong School Culture to Prevent High School Dropouts

by

Anne Sistrom Erwin

A dissertation submitted in partial fulfillment
of the requirements for the degree of

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Creating a Strong School Culture to Prevent High School Dropouts

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Anne Sistrom Erwin

This dissertation is completed as a partial requirement for the Doctor of Education (EdD) degree at the University of Portland in Portland, Oregon.

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Abstract

The purpose of this mixed methods study was to identify factors within a high school culture that may reduce dropout rates by encouraging students to return each year and follow a path to graduation. The study also sought to identify ways a school culture may foster or draw on student resilience, to support their successful completion of high school. The study was conducted in a comprehensive high school (grades 9-12) situated in a large suburban school district in the Pacific Northwest. To quantitatively assess the school's culture, a 48-question survey was completed by 194 members of the senior class of 2017 (52% return rate). The survey was based on a previously tested School Connectedness Survey (SCS) developed by Lohmeier and Lee (2011). Three cultural elements of belonging, connectedness, and relatedness frame the questions in the survey. Survey data were analyzed in line with these elements. The academic transcripts of all 427 seniors in the class of 2017, were analyzed to identify students who, at the end of the ninth grade were statistically predicted not complete to high school. This analysis yielded a cohort of 54 students. The credit earning, course completion, and credit recovery patterns of the at-risk cohort were analyzed, and three common trajectories through high school were determined. Analysis of the demographic composition and rate of success for each trajectory identified three common pathways through high school. The influence of adolescent resilience and the role schools may play in fostering this trait were

examined through semi-structured interviews of four members of the original at-risk cohort who graduated.

The qualitative and quantitative data sources allowed for triangulation of results in drawing conclusions. Statistical analysis of the student survey determined a high overall level of positive student perception of school connectedness. Results determined that student perceptions rated *relatedness* as the highest cultural element present with a mean combined positive response of 80.6%. Additional analysis showed only minor differences in responses based on gender, grade point average, or years of attendance at the school. Review of the high school trajectories revealed that one of the pathways moved all students to graduation while two resulted in lower rates of successful completion. Of the 54 students in the original at-risk cohort, 24 graduated as members of the class of 2017. Interviews with the four graduates identified key agents within the school culture that supported their successful high school graduation including adult relationships, school culture, and individual determination.

Results of the study show that promotive and protective factors within a school culture may support some, but not all, at-risk students along their high school path. The implications of this study may encourage schools to develop tools to identify students at-risk academically early and to foster school cultures where students develop strong, supportive relationships with adults.

Keywords: dropout, resilience, school culture, school connectedness, high school graduation, adult relationships.

Acknowledgements

Finally, I want to recognize the contribution my family makes, every day, to my work as an educator. My children, Kathryn, Robert, and Kerry were always understanding about the amount of time their mom spent helping other people's children. And, to my husband Thomas for his constant support, especially during the three years of my doctoral program. He is understanding of my commitments of time and energy, he asks challenging questions, celebrates with me during successes, and comforts me when times are challenging. He is my better three-quarters.

Dedication

I dedicate this dissertation to the people who inspire me every day to be a better educator.

To my parents, Dorothy and William Sistrom who were my first teachers. My mother gave me a heart for social justice and taught me to see and encourage the potential and self-worth of every individual. My father fostered in me a love of learning, a questioning mind, and a drive to pursue the answers. Together their legacies guide my work every day.

For the past thirty-four years it was my great good fortune to work with countless colleagues—teachers, counselors, and leaders who, every day, meet students where they are and endeavor to move them toward their futures. Sometimes they lead students from the front, other times they walk alongside, and occasionally they push them from behind. This dissertation is also dedicated to them in honor of their enduring spirit and service to students.

To my grandchildren, and to all of my past, current, and future students who are certainly our best hope for a better future.

Finally, to my husband Tom, who supported my decision to "try teaching for a bit" and then supported me once I discovered that it was to be my life's work. Your belief in me gives me the strength to serve.

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Chapter 1: Introduction

The number of individuals navigating their future without a high school diploma is alarming. Currently, almost one out of every eight students who enters high school in the United States does not complete high school and as a result, may face a limited future. Recently, the US rate for high school graduation reached a record high of 83% in 2015, according to the U.S. Census Bureau (Ryan & Bauman, 2015). In addition to the general trend upward, the rates for all subgroups also rose, suggesting a broad improvement that reaches across all student groups (DePaoli, Balfanz, & Bridgeland, 2016). According to DePaoli et al., much of the improvement in the graduation rate is due to increased rates for low-income and minority students (DePaoli et al., 2016). Lost in the overall graduation increase are some low rates for specific groups of students. Foreign born students currently graduate at a rate nearly 20% lower than native born, and the graduation rate for Hispanic students lags behind the mean as well at 67% in 2015 (Ryan & Bauman, 2015). Nearly one out of every eight students still exit high school without the document that may be the key to a successful life. Without a high school diploma, students face a wide variety of challenges.

High school dropouts are likely to experience challenges in the workforce. Reports from the Census Bureau (Vespa, 2017), demonstrate that the gap between workers with and without a high school diploma widened over the last 25 years. In 1975 40% of all workers had a high school diploma while 18% did not. By 2016, the gap narrowed considerably with 26% having a high school diploma and only 9% of the total workforce lacking one. More Americans are extending education into college

and beyond. In 1975, 20% of workers completed an associate degree and 23% a bachelor's degree or higher. By 2016, those rates rose to 29% and 37% respectively, thus further widening the education gap between those without a high school diploma (Vespa, 2017).

Challenges for Dropouts

Americans without a high school diploma are likely to face a lifetime of challenges, including economic difficulties, potential criminal activity, and increased health risks.

Economic challenges. A high school diploma is key to a strong economic future for individual workers. Americans lacking a diploma may encounter a variety of financial and workplace challenges. According to the U. S. Census Bureau (2010), the unemployment rate for Americans 25 years and older who have less than a high school education was 18% in 2010, as compared to 12% for workers with a high school diploma and 6% for people with a bachelor's degree (U.S. Census Bureau, 2010). Even for those workers who are employed, the lack of a high school diploma can mean decreased earnings. Census reports show that monthly earnings for workers with some high school as $2,434 per month, while high school completers earn $3,179, and those with some college earn $3,598. Earning a high school diploma can mean on average an additional $9,000 more in earnings per year (U.S. Census Bureau, 2008). The gap between males and females is wider as well. The gap for males between earners without a high school diploma and with a diploma is $20,700 while the gap for females is $17,200 (U.S. Census Bureau, 2008). In addition, the poverty rate is much higher for those who do not earn a high school diploma or higher. The

census shows that 28% of Americans with less than a high school diploma live in poverty as compared to 14% with a diploma (US Census Bureau, 2015). These individual economic woes can also have an impact on the broader community.

Economic cost of dropouts. Dropouts create long range costs for their communities and the nation's economy. Each dropout costs the nation approximately $200,000 in lost tax revenue and added expenditures over the life of the individual. The disaggregated costs of one dropout show the varied nature of the expense incurred. A dropout earns less and thus pays $139,000 less in tax contributions. In addition, each dropout incurs, on average, $40,500 in public health expenses and $3,000 in welfare supports. On average, each dropout creates $26,600 in costs associated with criminal activity (Catterall, 2011). In any given year, if half of the dropouts in the nation ended up graduating instead of dropping out, they would save the economy $45 billion in just that year (Balfanz, Bridgeland, Bruce, & Fox, 2012).

Increased criminal activity by dropouts. Individuals who fail to complete a high school education are more likely to engage in criminal activity (Veselak, 2015). Incarcerated male inmates are twice as likely as the general population to be high school dropouts (Erwert & Wildhagen, 2011). Those individuals ages 16 to 24 who did not complete high school are 63 times more likely to be incarcerated than those with a bachelor's degree or higher (DeBaun & Roc, 2013). Dropouts are disproportionately represented by race in prison populations. In the years 2012 to 2013, 33% of White male inmates ages 16 to 24 were high school dropouts, 77% of African American inmates were high school dropouts, and 40% of Hispanic inmates were high school dropouts. Females showed slightly lower rates of dropouts among

incarcerated individuals with 23% for White inmates, 32% for African American inmates, and 33% for Hispanic inmates (McFarland, Stark, & Cui, 2016). Overall the cost of the increased crime committed by individuals without a high school diploma is very high. Lochner and Moretti (2004) estimate that just a 1% increase in the high school graduation rate would save as much as $1.4 billion per year from reduction of cost from crime (Veselak, 2015).

Health related challenges for dropouts. Increased health challenges are another impact felt by those who do not complete high school. Lower socioeconomic status of high school dropouts puts them at risk for health issues. They have less access to healthy food, facilities for physical activity, and high-quality health care. There are a number of health impacts that disproportionately affect people who fail to complete high school. On average, individuals without a high school education live nine years fewer than those with high school education or beyond. The rate of diabetes in high school dropouts is 15% compared to 7% for those with a high school diploma or higher. Individuals who lack education also face challenges when trying to navigate health care. People with lower literacy have poorer health-related knowledge and lack skills to navigate the vocabulary and structures of hospitals and health insurance (Zimmerman, Woolf, & Haley, 2015).

Why Students Drop out of School

Although the decision to withdraw from education is a very individual one, research points to several common reasons for the decision. The conversation about high school dropouts has, for some time, referred to general categories of reasons for the decision to leave school. In a meta-analysis of the literature on dropout factors,

Doll, Eslami, and Walters (2013) grouped the reasons for dropping out into three categories: push out, pull out, and fall out. Students are pushed out by factors particular to the school setting such as attendance policies, academic challenge, or discipline issues. They are pulled out of school by forces that divert them from school including economic challenges, family needs, or out of school employment. Students who fall out of school do so when they lose hope due to poor academic performance or a lack of engagement (Doll, Eslami, & Walters, 2013). Regardless of the reason, the total number of students who drop out is seen, by many, as the ultimate measure of a school's failure to meet the needs of all students. The Every Student Succeeds Act of 2015 (ESSA) includes high school graduation rates as one of the five indicators to classify schools (Batel, 2017). High schools are a key agent in the work of improving the dropout rates. Factors that pull students out of school may be outside the direct sphere of influence for schools. Focusing attention on efforts to reduce the attraction of drug use, the allure of criminal activity, or the necessity of economic need demand time and resources that public education does not have. Push out and fall out factors are elements of school cultures that, with greater understanding, may lead to actions that result in improvement. Understanding how push out and fall out factors influence student educational decisions is foundational to any consideration of attempts to improve student academic success.

Research demonstrates that students who do not experience academic success early in their high school careers are at greater risk of dropping out of school (Allensworth & Easton, 2007). Early identification of these students offers the potential to exert influences within the school culture on these students to prevent their

departure. School cultures are the ecology that can influence individual student decisions to stay in school or not (Bryan, Gaenzle, Kim, Lin, & Na, 2011). In the same way that elements of school cultures can lead students to decide to dropout, school cultures can encourage students to stay in school. To reduce dropout rates and improve graduation rates, schools need to be able to reinforce or incorporate school-wide practices within their culture and structures that provide support for students who are potentially at-risk of dropping out. Strong connections with adults, safe and welcoming school cultures, and access to supports, are some of the ways schools can create an environment that supports students (Hynes, 2014). On an individual level, schools can also support students in developing the personal traits and attributes that encourages them to develop a sense of resiliency and persistence that allow them to continue despite the challenge of being at risk (Hynes, 2014).

Research Gap

There is extensive research that seeks to explain how some elements inside and outside of school cultures influence a student's decisions whether to remain in high school or not. In addition, there is ample study on why individual students make the choice to leave school. On another front, recent research attempts to explain the process through which young people develop personal resilience. Much of the existing research focuses on events and episodes of challenge in the lives of students and how events influence the development of this personal trait in adolescents. Resilience is often viewed as a positive adaptation that results from exposure to adversity or risk. The gap in research I hope to help close is the connection between elements of school culture that may foster the development of resiliency and thus

support successful completion of school. How can a school culture foster within individuals the traits that support successful completion of school?

Research Purpose

Any strong research proposal is grounded on a firm justification of the why a particular problem needs to be studied. Three possible reasons a researcher may be drawn to study a problem are, an awareness drawn from personal experience, an understanding derived from workplace experiences, and/or suggestions made by other researchers (Creswell, 2012). As a seasoned educator, I have a wealth of experiences that contribute to my understanding of the role schools can play in shaping the decisions of students and the actual impact of those decisions on them. As a teacher and then administrator, I met students who the school culture and structures influenced in negative and positive ways. I recall the journeys of two male students through a high school, one that led to eventual expulsion and one to graduation. In the short time that "John" was a student at the school, he was noticed by several key staff members and labeled as a troubled student. Some staff members followed him around school, observed his behavior, watched for misbehavior, and reported it promptly. Despite these negative interactions, John did manage to develop close connections with a few staff members. Over time it appeared that he began to behave in a way that was in line with the low expectations many had of him. After John's eventual expulsion, he spent some time in the criminal justice system, where he earned a high school diploma in less than a year. When John completed his time in the criminal justice system, he returned to the school to seek guidance from the adults with whom he forged positive relationships. He sought, and received, their counsel about how to

enroll in a local community college. Another student, "Paul," entered high school shortly after his arrival in the United States. His language abilities were minimal, and there were gaps in his basic skills. As Paul began to make progress, adults in the school noticed him for his hard work and cooperative nature. He became involved in student activities that brought him into deeper relationships with adults at the school. Although it took five years, Paul eventually graduated from the high school. These two narratives share a common school culture; one benefitted from that experience, while the other did not. They also appear to be portraits of personal resilience. The personal resilience John possessed was not seen or supported by the school, while Paul's resilience was noticed and supported. Based on experiences like these, I became very interested in understanding more fully the impact that school cultures can have on influencing positive decisions by students that lead them to successful completion of high school.

Recently the high school I chose as the site for this study experienced rapid improvement in two key indicators of positive community. After over eight years of negligible growth in the rate of graduation, the rate rose by 5.5%, from 74.2% to 79.7% during the 2015-2016 school year and another 2.5% percentage points during the 2016-2017 school year (State Department of Education), for a total increase of eight percentage points in two years. There were no significant or specific new initiatives, programs, or interventions undertaken by the school in the years before the gain. At the same time, some data were collected by the district's demographer that also generated interest in the school. Each year the demographer projects for each school the estimated size of the student population for the following academic year.

Using methods based on historical patterns and statistical measures, the demographer's estimations are generally very accurate. During each of the past four years, the results for the school in this study did not match the predicted pattern. The actual number of students who entered or returned to the school each year was well above the rates the demographer projected. This pattern was true in all grades and was experienced at only this high school in the district. This experience from this particular school made me even more curious about what might exist in the school's culture that could possibly be influencing student decisions to remain at this school.

This study sought to identify factors within a school culture that support the development of resiliency among students or draw on that trait. The study examined students, who despite the predictable potential to dropout, were able to persist toward graduation. It sought to identify the factors that kept students returning to the high school each year and supported their successful completion of their high school education. There was a focus on the personal attribute of resiliency, in particular, to determine the role it played in individual decisions of at risk students. Because the graduation rates for underrepresented student groups lag behind the aggregate rate, special attention to these student groups and the factors that helped retain them in school is a part of this study.

Research Questions

1. What were the four-year trajectories of students at this high school who were at risk of dropping out at the end of the ninth grade?

2. For surveyed students, what do they believe were the factors within the school culture that supported their development of persistence and resilience and supported their academic success?

3. For interviewed students who were at risk of dropping out at the end of ninth grade, what do they believe were the factors within the school culture or structures that supported their persistence and resilience and encouraged their success?

4. For underrepresented minorities, were there any factors of the school culture or the structures at this school, that particularly influenced their academic success?

Significance to the Field

Every high school dropout can create a drain on the nation's economic capacity, a loss of human potential, and an increase in societal costs (Catterall, 2011). Each dropout represents a failure of the education system to meet its imperative mission of educating every student. Educators can exert limited influence on the factors outside the bounds of their schools that encourage students to leave high school without the benefit of a diploma. The importance of this study is that it may offer school leaders an understanding of the role, within their sphere of influence, to encourage individual decisions of students to stay in school or not. With more precise understandings of the positive influence of school culture, school leaders can endeavor to build cultural elements and create ecologies that nurture students to persist through to graduation. This study offers some understanding of the sway that schools have in creating resilient students who complete their education.

Summary

Dropping out of high school is a costly decision. Every dropout faces individual challenges that will make his or her life more difficult. Students who drop out face fewer opportunities economically; are at greater risk of involvement in the criminal justice system; and may suffer greater health challenges. Also, each student who does not complete high school can create costs to the nation's economy. Schools can play a role in supporting students to stay in school through to completion. Early identification of potential dropouts is possible and can provide schools the opportunity to support at-risk students through to successful graduation.

This research in this study examined students, who despite the predictable potential to dropout, were able to persist toward graduation. The study sought to identify the factors that kept students returning to the high school each year and supported their successful completion of a high school education.

The review of literature that follows provides support for the investigation and the theoretical framework for the study. The various causes that lead to dropping out are reviewed in three general categories. For each category the role schools may play are reviewed. In addition, the social dynamics of school cultures are examined with emphasis on the impact on individual student decisions about their high school career. Next, the concept of student resiliency is examined. The origin of the concept and the impact it may have on students is examined. Finally, the influence that may exist is school cultures to foster resilience as an attribute in students is examined.

To assess the role school cultures may exert on student decision making, a mixed methods research methodology was used and is explained in Chapter Three.

The results of the research are detailed in Chapter Four and are organized by the study's research questions. Chapter Five includes discussion of the key findings, limitations, implications, and recommendations of this study.

Chapter 2: Literature Review

For individual students, the attainment of a high school diploma is the culmination of successive years in school and the completion of graduation requirements. The National Center for Education Statistics defines the graduation rate as "the standard high school diploma awarded to students in a state that is fully aligned with the state's academic content standards and does not include a high school equivalency credential, certificate of attendance, or any alternative award" (Stetser & Stilwell, 2014, p.1). Graduation rates are reported for a single class cohort. A four-year adjusted cohort graduation rate follows section 1111(b) (2) (C) (vi) of the Elementary and Secondary Education Act and is defined as the "percentage of students who graduate from secondary school with a regular diploma in the standard number of years" (Annie E. Casey Foundation, 2017, p. 60). A school's dropout rate represents the number of students who exited that school while in grades 10 to 12 in the 12 months between one October and the next (Stetser & Stilwell, p. 5). Graduation rates are influenced by the cumulative effect of multiple years of dropouts over the four-year career of a given grade cohort. Graduation rates and dropout rates depict two aspects of high school completion. There is extensive research on the causes of high school dropouts that provides an understanding for past, present, and future rates of high school graduation.

The literature review for this study outlines the underlying causes that lead to high school dropouts and the factors that help students persist through to graduation. It examines a framework that categorizes the factors that lead students to leave school. These are categorized as push out, pull out, and fall out influences. Next, the review

discusses the historical trends and nature of these various dropout causes and the variation of dropout rates across demographic characteristics. In addition, the literature review examines the value of early identification of potential dropouts. This is an area of rich literature that offers insight into both the cause of dropouts and possible intervention. The literature in this area is particular helpful in describing the starting point of the trajectories students who drop out follow. The review examines how school cultures may act upon students to keep them in school until graduation. Finally, the review concludes with a survey of literature pertaining to personal resilience that may influence the educational decisions of individual students.

Graduation Rates and Trends

Over the last century and a quarter, the graduation rate in the United States experienced a trend resembling a roller coaster. The rate rose steadily for 70 years, stagnated, and is once again on the rise. From a low of 6% in 1900 the U.S. rate rose to 80% by 1970. This rate placed the United States as the leader among industrialized nations as determined by the Organization for Economic Co-operation and Development. It began to increase again in 2000 and rebounded by 2010 (Murnane, 2013). Recently, the rate for high school graduation for the U.S. reached a record high of 84% in 2015, according to the U.S. Census Bureau (Ryan & Bauman, 2016). Despite this growth, and due to increases among other nations, the U.S. remains thirteenth among the OECD countries. As would be expected, the rate of dropouts over that same period declined. The proportion of high school dropouts declined from 17% to 7% between 1967 and 2014. This represents a reduction by more than half (Child Trends Bank, 2015). Hidden in the aggregate improvements in graduation and

dropout rates are some gaps among student groups based on socioeconomic, race, and gender.

Dropout Rates by Socioeconomic Status, Ethnic Characteristics, and Gender

Although the dropout rate nationally appears to be on the decline and the graduation rate is increasing, economically disadvantaged students and students in minority groups are not feeling the impact of these increases. The dropout rates for students in the lowest family income categories are historically higher than those of middle high and middle low-income groups. The Bureau of Statistics, (2013) reported that dropout rates for the highest income levels were consistently the lowest and remained steady over the last three decades. Students of all races experienced a reduction in the rate of dropouts; gaps still remain. From 1990 to 2013 the dropout rate was lowest for White students while the rates for both White students and African Americans students were lower than the rate for Hispanics students. During this period, the rate for Whites declined from 9% to 5%; the rate for African Americans declined from 13% to 7%; and the rate for Hispanics declined from 32% to 12%. As a result, the gap between Whites and Hispanics narrowed from 23 percentage points in 1990 to 7 in 2013, while the White-Hispanic gap declined from 21 percentage points to 7. The gap between males and females shrunk considerably over the last three decades as well. Between 1990 and 2013, the male dropout rate declined from 12% to 7% and for females, the rate declined from 12% to 10% (U.S. Bureau of Statistics, 2015). Aggregate data show the combined impact of individual student decisions to leave school. These individual decisions are influenced by a variety of causes.

Factors that Influence Dropout Rates

The decision to drop out can result from a variety of factors and develop over a number of years. Research describes the causes of a student dropping out as the event that led to the action. The event or cause, though, is often cited is at the end of a long process that began well before the actual exit from school. The final departure from school is the culmination of what is often a long slide toward dropping out (Doll et al. 2013). Several researchers group the causes of dropping out into three categories and identify them as "push," "pull," and "fall out." Jordan (1994) described the pressures that push students out of school as conditions within the school that lead eventually to the student leaving the school (Jordan, 1994). "Push-out" theories, according to Stearns (2007), concentrate on the school factors that discourage students from continuing with their education and identify attributes of the school structure that influence a student's decision to leave (Stearns, Moller, Blau, & Potochnick, 2007). Some of these can include academic work, attendance challenges, discipline incidents, or poor behavior (Doll et al., 2013). Pull factors are forces that draw students away from school. These are events or influences that divert students from the path of completing high school. Examples of pull out causes are family situations (marriage, childbirth), crisis within the student's life, financial challenges, or even health issues. Some of the factors that lead to students dropping out occur outside the scope of schools while others are inherent within the school structure and culture (Doll et al., 2013).

Another more hidden category of dropout are those students who disappear quietly. These students are described by the term "falling out" (Watt & Roessingh,

1994). This term refers to students who become discouraged or apathetic about their progress in school and eventually fall out. There is not an identifiable factor that is pushing or pulling the student out of schools, rather a slow separation occurs (Doll et al., 2013). One of the key differences across the various causes of dropouts is the role of the student. The school tends to be the source of influence in pushing students out of school while students are the agent when pull is the factor. In "falling out" neither the student or the school solely exercises agency over the decision but rather both share the responsibility (Watt & Roessingh, 1994).

Historical Trends in Dropout Rates

Although the causes can be generalized to three categories, the impact of each type appears to fluctuate over the last 50 years. In a comparative analysis Doll and his colleagues reviewed a collection of major studies on dropout causes. The meta-analysis included some studies that focused on students and others that focused on administrator perceptions of what causes dropouts. They began with The Explorations in Equality of Opportunity Study in 1955 and concluded with Education Longitudinal Study in 2002. For each study, the researchers recoded the causes indicated in the study to align with the categories of push, pull, and fall out. A review over time of the causes (Table 1) for dropouts reveals the fluctuating nature of dropout causes potentially due to economic and social influences.

Table 1

Comparison of causes of high schools as tracked in longitudinal studies by percentage

Study	Pull	Push	Fall Out
The Explorations in Equality of Opportunity Study 1955	60.0	21.8	18.2
The Explorations in Equality of Opportunity Study 1966	75.5	6.3	18.2
The National Longitudinal Study of the class of 1972	48.8	30.9	48.8
National Longitudinal Survey of Youth Labor Market Experience 1979	46.3	18.3	35.4
National Education Longitudinal Study (1988)	32.2	42.2	25.6
Education Longitudinal Study (2009)	36.9	48.7	14.3

Note. Assembled from "Understanding Why Students Drop Out of High School,

According to Their Own Reports," by J. J. Doll, Z. Eslami

The comparison of longitudinal studies shows a historical trend of fluctuations

in what respondents to the surveys identified as the cause for dropping out. In

addition, the main type of cause changed over time as did the specifics of the reason.

In the 1955 study the top five reasons for dropping out identified by students were: got

married, did not like school, wanting to go to work, not doing well in school, and

financial challenges at home. Three of the top three reasons, got married, wanting to

go to work, and financial challenges at home were influences outside of the school that

pulled students away from graduation. By 1988, the reasons shifted to more school centered ones including: did not like school, failing school, could not keep up, lack of belonging, and could not get enough help. In 2002, the trend of push out factors continued. The top five reasons given in the 2009 study shows a continuation of student identification of push factors. The five top reasons given by students include, missed too many days of school, a GED seemed easier, poor grades, did not like school, and could not keep up. The longitudinal review by Doll et al., describes a gradual change in the factors that influence student educational decisions from primarily outside influences, to those influences present in school (Doll et al., 2013).

Demographic and Geographic Dropout Trends

The factors that influence a student's decision to drop out vary by demographic and geographic characteristics. In their analysis, Doll et al. found that over time males began to report being pushed out of high school more than females, while females reported more pull out causes for their departure. Early on the events pulling females out of school included marriage and childbirth and more recently they appear to be for economic reasons (Doll et al., 2013). The National Longitudinal Survey of Youth Labor Market Experience in 1979 was the first national study to include the identification of ethnicity that expanded the view of the data to include view of the difference in perception based on race. In 1979, White students reported disliking school as a primary reason for dropping out, while African American students identified rates of expulsions or suspensions as a cause for dropping out. Also, Hispanic students reported the highest ranks for pull factors. In the 1988 National Education Longitudinal Study African American students continued to identify push

factors while Hispanic students were more likely than others to report pull factors. Recently, cultural differences began to appear as a contributing factor to the dropout rates for Latino and African American students (Bradley & Renzulli, 2011). The impact of factors that draw students out of high school appear, from the research, to have a disproportionate influence on students from minority groups. While some students feel drawn out of high school, others feel pushed out.

Factors That "Push out" Students

High schools are organized and structured with the goal of educating every student. The course of study, systems, policies, and culture are designed to be completed by students over the expected four years of high school. The ultimate mark of completion for students is completion of educational requirements and the attainment of a diploma. Schools are organized to meet the needs of heterogeneous populations of students while guiding them toward a common measure of completion. This standardization may serve to disadvantage students who vary by age, gender, or academic ability. The path through high school may be standardized, but every student makes progress on the route as an individual. Some students may, due to the culture or structure of the school, get lost along the way. Factors that may "push out" students can be found within the academic system (grades, credits earned) or the school culture (climate, attendance or discipline policies).

Lack of academic advancement in ninth grade. The freshman year experience appears to exert the greatest influence on student success in high school. The freshman year is identified as one of the most influential points in a student's high school career (Allensworth, 2013, Stearns, et. al., 2007). Several key markers

distinguish ninth grade as a pivotal point in a student's education. Entrance into ninth grade brings students into the last and most accountable part of their schooling. The transition to a new school also signals a move into greater independence and responsibility.   All students in high school are held to higher standards and required to meet them to complete their schooling (Neild, 2009). These and other factors explain why the transition to ninth grade is considered to be one of the most promising and challenging. Success in the freshmen year puts students on a path toward success; failure can end in dropping out.

From the time a student begins high school the main goal is to acquire credit in courses. Freshmen students who do not make expected academic progress during their first year are at high risk of not graduating. There is a strong correlation between academic success in the freshman year and graduation. The work of the Chicago Consortium of Schools focused on the identification of students who were off track at the end of the ninth-grade year. "Off track" was defined as not acquiring one fourth of the required courses and/or failing one or more core (language arts, science, math, social studies) classes. Allensworth and Easton found that all students, regardless of their academic ability, who meet the criteria for being off track were at risk of not graduating.   Overall, in Chicago Public Schools, only 22% of students who were off track at the end of the freshman year graduated within four years (Allensworth & Easton, 2005). These results spanned levels of academic ability, as defined by test scores. Students in the top quartile academically (based on test scores) were unlikely to be off track. For students in the second quartile of achievement, 24% failed to graduate if they were off track, and 32% of students with very low test scores did not

graduate if they ended their ninth-grade year off track (Allensworth, 2013, p. 69). In

an earlier study, Allensworth demonstrated a strong correlation between completion of

one-fourth of the required credits by the end of the freshmen year and graduation

(Allensworth & Easton, 2007). The difficulty of ninth grade results in a number of

students who may not be viewed by the school as eligible to move on to the

sophomore year as expected. In many schools, these students are held back to repeat

the freshman year.

Retention of freshmen. "What remains incontrovertible is that there is a

substantial gap in the probability of dropout between retained and continuously

promoted students" (Stearns et al., 2007, p. 211). These findings point to another

reason for the high rate of dropouts in the freshman year. For students who struggled

in middle school or were not academically challenged, ninth grade was where their

past deficits caught up with them (Neild, 2009). Allensworth points out clearly the

connection between course failure and lack of credits to dropping out because of the

gap between credits earned and credits needed. Some schools attempt to address the

gap by holding students back to repeat a grade. Retention occurs throughout earlier

years of schooling, but the impacts may only be seen once students arrive in high

school. Jimmerson, Anderson, and Whipple (2002) conducted a comprehensive

review of dropout literature focused on the impact of grade retention. The review

found that grade retention is a high predictor of future dropout. Several studies

concluded that it was the strongest predictor (Jimmerson, Anderson, & Whipple,

2002). Completion of high school requires the accumulation of a set number of

credits. Ninth grade retention is a school structure implemented to address the

challenge of low academic achievement. The results of this may have implications that affect student perceptions of school. Students who are retained report a lower self-esteem than their promoted peers. Retained students begin to view the school as a place where they experience mostly failure and begin to retreat from engagement. Holding a freshman student back severs ties with their peers and can have an impact on their relationships with teachers (Stearns et al., 2007). The perceptions of retained students are created by being required, by the school, to repeat ninth grade. This is an example of a school-based action that can lead to students feeling "pushed out."

The impact of grade retention falls unequally on minority students and males. "During the period 1996-2003, African American and Latino ninth graders were more than twice as likely as White students to spend an additional year in the ninth grade (approximately 5% for African Americans and Latinos versus 2% for White students). Ninth-grade boys were retained in ninth grade at a rate of 4%, and girls were retained at a rate of 2%. Males were retained at a rate twice the rate of girls (Neild, 2009, p. 58). Retention of students in grades, especially ninth, is a school-based structure that may later lead to students feeling pushed out.

10th grade academic challenges. Although most students who drop out do so in the ninth grade, 10th grade is another time when students make the decision to exit school. Students who leave in later grades comprise half of the students who eventually drop out. By the sophomore year most students are past the ninth-grade shock. The experience of dropouts in the 10th grade and beyond may be slightly different from those of students who leave in the ninth grade. An NCES analysis of sophomore dropouts combined a statistical analysis with student surveys. The

analysis revealed some common characteristics. Most students (83%) listed school-related reasons for leaving school. Other reasons cited were outside the school including employment (35%) and family reasons (34%). The reasons given for leaving school included, attendance issues, taking a GED seemed easier, poor current grades, and not liking school. Male students cited school-related reasons 89% of the time compared to 75% of female students. Boys and girls differed in leaving for disciplinary problems. Suspension was cited by 23% of male respondents as compared to only 9% of females (Dalton, Glennie, & Ingels, 2009, pp. vi-vii). Once again, several school-based factors appear to influence student decisions later regarding whether to leave school or not.

Potential factors in schools that may push out students. A school's culture can exert positive influence or negative pressure on a student's desire to remain in school. When students are pushed out of school it is because they either failed to create appropriate connections with school or there were structural aspects that forced students out (Hynes, 2014). Many explanations for why students drop out consider the decision as an either-or proposition. A student either decides to drop out or does not. This perspective places much of the responsibility on the student and identifies students as "at risk" or not and does not focus on the role the school plays in the decision.

Aspects of the structure of schools such as discipline or attendance policies can result in students feeling pushed out. In the 2002 Educational and Longitudinal Study students identified "push" factors as the number one type of reason for dropping out. These reasons included, missing too many days of school (43.5%), poor grades (38%),

and students could not keep up with the work (32.1%). Further down the list were two discipline-related issues, suspension (16.9%) and expulsion, (9.9%) (Doll et al., 2013, p. 288). The zero-tolerance discipline policies that were introduced in the 1990s created school structures that may push out students. School disciplinary practices exclude hundreds of thousands of young people in the United States from the educational process each year. Exclusion can vary from sending students to the office to out-of-school suspension or expulsion (Wallace, Goodkind, Wallace, & Bachman, 2008). Absence from school can have an impact on students' ability to progress academically. High use of suspension as a discipline consequence is associated with higher school dropout rates. The degree to which the school made use of suspensions as a disciplinary consequence was predictive of the resulting dropout rates for schools (Lee, Cornell, Gregory, & Fan, 2011). More specifically, Suh and Suh (2007) found that students with a history of suspension, had a 78% likelihood of dropping out (Suh & Suh, 2007). Exclusionary discipline practices are imposed upon minority students more often. Research by Wallace et al., (2008) showed that African American students are twice as likely to be suspended or expelled. School discipline structures that impose discipline based on zero-tolerance frameworks create a system poised to push out students and do so in a racially disproportionate manner (Wallace et al., 2008).

Fall out Factors

The factors of academic progress, grade retention, or sophomore year difficulties all have results that should be apparent to schools, students, and families. "Push out" factors are somewhat easier to see and report. Falling out is more silent

and invisible. It is not necessarily an active or visible decision, but rather a "side-effect of insufficient personal and educational support" (Watt, & Rosessingh, 1994 p. 293). Falling out is a gradual process. Students experiences a gradual increase in behaviors of academic disengagement. These behaviors do not result in the student being pushed out quickly but rather they slowly disconnect from school. (Watt & Roessingh, 1994).

Ninth grade shock. The start of a student's high school career can present immediate challenges to graduation. Nokolas Pharris-Ciurej (2012) identified several factors that combine to create what he terms "9th grade shock." Students entering from middle school (grades6-8) may, for the first time, encounter larger class size and more challenging course loads that can have an impact on student academic success. Also, students experience greater freedom within their day-to-day experience and greater individual responsibility for their academics. Many manage this new environment well, while for others it can result in academic failure. Freshmen students are faced with the challenging factors of physical, emotional, and developmental changes particular to their age. Students face the challenge of greater opportunity for potentially risky behavior and outside distractions. Many new freshmen find themselves in an unfamiliar place that can seem impersonal, chaotic, and impersonal. The combination of personal challenges that occur in an unfamiliar setting create a mix that can mean academic failure for many ninth-grade students. Early failure in the first months, or even weeks, of ninth grade can create a downward slide (Pharis-Ciurej, Hirschman, & Willhoft, 2012). The long-term impact of the ninth-grade shock is that it can lead to eventual high school dropout. Freshmen shock

is different from being off-track at the end of the year because it may result in

academic progress that is below a student's ability, yet not disastrous enough to alert

schools to the risk.

      Lack of engagement. Freshmen are not the only students who experience

disengagement or disequilibrium during high school. The Center for Evaluation &

Education Policy at Indiana University regularly conducts the *High School Survey of*

Student Engagement (HSSE) (Mintz, 2007). The survey is designed to identify the

types and levels of engagement students experience across the country. Although not

designed with dropouts in mind, the survey provides some insight into some of the

factors that might allow students to fall out. Of the respondents, 22% reported that

they considered dropping out of high school. The main reasons given were "I didn't

like the school" (73%), "I didn't like the teachers" (61%), and "I didn't see the value in

the work I was being asked to do" (60%). Of students who reported considering

dropping out 24% responded that there was not a single adult at school who cared

about them. Students who skipped school regularly are more likely to have considered

dropping out many times (Mintz, 2007). A great deal of attention focuses on the

existence of an achievement gap or even an opportunity gap in American schools. The

authors of the *HSSSE* suggest that there is another, potentially more silent gap that

exists: the engagement gap. This gap appears to disadvantage some of the same

students who are already at greatest risk of dropping out. Girls reported greater

engagement than boys. White and Asian students were more engaged than other

races. Disengagement may be an example of a factor that influences students' feeling

of "falling out." One finding from the survey points to that as well. Students reported

being less engaged in each successive grade from 9th to 12th (Mintz, 2007).

Engagement is an aspect of a school's academic program, activities, and

extracurricular offerings, and culture. Schools with cultures and structures that allow

students to become disengaged create the conditions that may encourage students to

fall out of education.

      Lack of support from or connections with the school. Many of the factors

indicate that students who are at risk for dropout may be the visible manifestations of

the broader and less visible factor of student disengagement. Emerging research seeks

to assess the impact that generalized lack of student connectedness and engagement

can have on students. Some of the research draws on social dynamics theories. Self-

System Model of Motivational Development suggests that individuals possess an

innate need to connect with others and interact effectively with their environment.

Fall and Roberts (2012) draw on the theory and suggests that the connection a student

feels to a school is related to how well the institution satisfies the individual's need for

connection. Students in schools where they feel support from teachers and adults at

home have greater competence, perceived competence, and a sense of school

engagement. The presence of school engagement has a positive impact on student

academic success (Fall & Roberts, 2012).

      In the Silent Epidemic Perspectives of High School Dropouts (2006)

Bridgeland and others conducted a series of focus groups and a survey of young

people aged 16 to 25 who identified themselves as high school dropouts in 25 different

locations throughout the United States. The results point to several factors of school

cultures that may contribute to dropping out. Of students who reported to have

dropped out, 38% percent believed they had "too much freedom" and "not enough rules." More than two-thirds were not motivated or inspired to work hard. The lack of support in the school was also identified as a reason for dropping out.   Just over half of the students said they had a staff person to go to with school problems, and less than half could find an adult to help them with personal issues. According to 62% of the respondents, schools needed to offer more help for students to deal with issues outside the classroom (Bridgeland, DiIulio, & Morrison, 2006). Positive adults who connect with at risk students can be the anchor that keeps them from falling away.

Lack of strong school bonds. Students' attachments to school increases their likelihood of staying in school. Bryan et al., (2011) defined this as "school bonding" and examined the various ways that school increases or decreases the feeling among students. Their study identified four bonding factors: attachment to school, attachment to teachers, commitment to school, and school involvement. They found that school commitment and student involvement in school contributed greater influence on high school students than the other two attachments. When commitment to school is present, students experience greater academic success. They believe the school can support them and wants to do so. Schools can foster commitment, on the part of students, by providing opportunities for them to craft their future aspirations and understand the value of schooling to achieving those plans. Connecting students to caring adults can also, according to the research, lead to increased social bonding (Bryan et al., 2011). There is ample research that suggests that students who are socially engaged in school through extracurricular activities appear to be less likely to dropout. (Bryan et al., 2011).

Identifying Dropouts Early

There is abundant research that identifies causes of high school dropouts. Recently, researchers and policymaker began to consider ways to use the extensive data available to make early predictions of which students were at risk of dropping out. The impetus behind this was to better inform the work schools pursue in attempts to decrease the number of dropouts. Working in conjunction with Chicago Public Schools, Allensworth and Easton (2005) created an early warning system to identify freshmen who were at risk. Allensworth and Easton's research suggests that that an early warning indicator could accurately predict, with 80% accuracy, which students would or would not graduate (Allensworth & Easton, 2005). The tool uses three measures, ninth grade GPA, attendance, and credits earned by the end of the freshman year. In Chicago Public Schools, the early warning tool was used by schools to identify students at risk and to engage various strategies for improvement. The use of the tool resulted in improvement in Chicago. The Freshmen on-track rate in 2001 was 56.8% and by 2011 it rose to 72.7% (Allensworth, 2013).

Balfanz (2011) also suggests an early warning tool that includes a slightly different set of data points. The Balfanz's ABC indicator includes:

- Attendance: Missing 20 days or 10% or the school days

- Behavior: Two or more mild or serious behavior infractions

- Course performance: GPA of less than 2.0; two or more failures in ninth grade courses; and failure to earn on-time promotion to the tenth grade. (Balfanz, Bridgeland, Fox, 2011)

Both Allensworth and Balfanz found that grades are a more accurate at-risk

indicator than standardized test scores. The ability to identify students early,

regardless of the reason, offers schools the potential to intervene to support student

academic success. Schools are drawing on early indicators to use data and other tools

to move beyond simply setting standards and hoping students meet them. Instead

schools are trying to provide paths that give students the skills necessary to graduate

(Balfanz et al., 2011).

     Identification of students who are at-risk may be helpful to schools, but the

student is still a major agent in his or her success. The individual motivation and

personal perspectives of students play an important role in students being able to draw

on the supportive school culture that may exist. The literature is extensive about what

causes students to drop out and informs schools about practices that may create

stronger ties to students. Certainly, the causes that lead to dropouts provide schools

with greater clarity about the root causes and can provide insight into how to

potentially decrease dropout rates. For example, if retaining students in the ninth

grade creates a propensity for dropping out, then schools can consider reversing that

policy. If disproportionate discipline practices are a cause, then school can reconsider

how discipline is administered. Yet, even in a very supportive school culture, a

student's personal traits can influence the course he or she takes through the school.

One trait that is receiving increased attention by researchers is resilience. An

understanding of this trait may create greater clarity about how to support students

through to graduation.

Resilience

The understanding of resilience emerged over time, and researchers are coming to greater consensus on the definition, origins, and factors that influence resilience in individuals. The addition of resilience as a focus brings the role of the student into the process of high school education and graduation. Attention to the research on resilience can inform the discussion by focusing on the active participation of students.

Definition of resilience. Resilience is defined as "a dynamic process encompassing positive adaptation within the context of significant adversity" (Luthar, Cicchett, & Becker, 2000, p. 543). The process of developing resilience involves two factors: first, the presence of risk that may interrupt or disrupt normal development, and second, the resulting positive adaptation to the risk (Fergus & Zimmerman, 2005). Students who develop resiliency are those who successfully draw on their assets or those of their surroundings to overcome adversity (Khanlou & Wray, 2014).

Origins of resilience as a concept. During the 1970s psychologists and psychiatrists began to develop the concept of resilience. At that time, researchers began to explore the factors that promoted or encouraged the development of resilience (Zoloski & Bullock, 2012). The decades of research since that time yielded some important insights into the nature of resilience. Early in the research, children who were identified as resilient were considered somehow extraordinary or possessing some tremendous inner strength. Over the past two decades research adjusted the understanding of resilience to accept that it is a fairly common phenomenon and results from individuals adapting to risks they face (Masten, 2001). As research continued, there was a shift to understanding the factors that encouraged resilient

behavior (Luthar et al., 2000). Recently the concept was modified to include the understanding of some of the systems that can influence an individual's capacity for resiliency. If individuals are surrounded by healthy supportive, positive systems, they are able to adapt to adversity they face (Masten, 2001).

Models of resilience. There are various common models of resilience to explain the elements of the process that creates resiliency. Masten (2001) presents two models of resilience. One is a variable-focused model that examines the role of assets and risk factors in creating resilience that can change an outcome. Investigation of this model examines the collection of factors of risk or asset and assesses the role of each in contributing to the adaptation of resilience within individuals. Masten describes the second model of inquiry as person-focused. This model attempts to discern the characteristics of individuals who demonstrate resilience when faced with risk or adversity. This branch of study seeks to determine if some individuals are more prone to be resilient and, if so, why (Masten, 2001).

Fergus and Zimmerman (2005) present a three-tiered model for understanding how positive, or promotive, factors can prevent risk factors from resulting in negative outcomes. Promotive factors are environmental, social, and individual factors that help individuals interrupt the trajectory from risk to pathology. They describe this interruption in a three-tiered model: compensatory, protective, and challenge. Compensatory is present "when a promotive factor counteracts or operates in an opposite direction of a risk factor" (Fergus & Zimmerman, 2005, p. 401). The protective model of resilience suggests that assets and resources operate to reduce or neutralize the threat of risk factors. Assets are factors within a person such as

efficacy, identity, and orientation to the future. Resources are factors outside of the individual. Assets and resources provide youth with the attributes they need to make positive progress (Zimmerman, Stoddard, Eisman, Caldwell, Aiger, & Miller., 2013). Finally, the challenge model suggests that exposure to various levels of risk allow individuals to adapt to the challenge and to develop some resilience. The model which most closely applies to school cultures is the protective model. In this model, positive influences or assets serve to reduce or neutralize the effects of risk (Fergus & Zimmerman, 2005). The positive impact of the protective factor may not totally eliminate the risk that exists but rather lessen its influence. According to Fergus & Zimmerman, a school culture may possess elements that could serve as protective factors.

School communities that provide strong social networks for students and a culture that includes clear social and culture norms, is likely to support the development of resilience among students (Wasonga, Christman, & Kilmer., 2003). Schools where educators promote the self-worth of students, provide high expectations, and support student academic success will create resiliency in students (Thornton & Sanchez, 2010). Positive use of time and school supports are areas schools may be able to exercise some influence. Involvement in school activities provide strong outlets for students and can foster resiliency. Being involved in school activities generates positive self-esteem and an individual's belief in his or her own potential for success. Participation in school activities connects students with other positive peers, and McMillan (1994) describes these as "refuges for resilient students" (p. 138). Students who are resilient find connections to adults outside of their home.

These students value that adults who take an active interest in their lives, listen to them, respect them as people, and offer support as needed (McMillan, 1994). Lessard and her colleagues interviewed at-risk students to discover why some succeeded while others did not. One common element that both groups identified as important to helping students stay in school was strong student-teacher relationships.

The importance of developing resilience among at-risk students has implications for schools that wish to move more students to successful completion of their education. First, schools need to provide academic experiences on which students can draw and develop self-efficacy and goal setting. Second, classrooms need to engender a sense of high expectations and a culture that supports students in meeting the expectations. High standards push students to achieve, and in a supportive classroom environment, they believe they can. Third, schools need to offer a variety of ways for students to engage in extracurricular activities (McMillan, 1994).

Factors that foster resilience. Research suggests that resilience within students can lead to greater academic success. It is defined as the process or capacity to adapt in the face of adverse conditions or risks (Lessard, Butler-Kisber, Fortin, & Marcotte, 2014). Resilient students are those who, despite enduring hardships and the presence of at-risk factors, still managed to develop characteristics and skills that empowered them to succeed (McMilllan, 1994). Factors of student resiliency can be grouped into four categories: individual attributes, positive use of time, family, and school. Students who are resilient have a positive outlook on life and a strong internal locus of control. They do not blame others or outside forces but rather accept personal responsibility. These students have clear goals and future aspirations (McMillan,

1994). Family factors can influence resiliency. Although family composition does not appear to influence resiliency, parent educational attainment does. Students from a household where parents had a high school education or beyond were twice as likely to exhibit resilient tendencies according to McMillan. These two factors, although informational to school leaders, appear to be outside their influence.

Resiliency may be a positive asset that reduces the likelihood of at-risk students dropping out. Youth who are resilient adapt to school environments with positive outcomes that occur despite family, poverty, or other issues (Thornton & Sanchez, 2010). Students who develop resiliency are able to create successful academic results for themselves. Lessard and her colleagues' research on resilience and dropouts show some of the traits these students demonstrate. Students who develop resilience can be persistent in their studies and work hard to understand material and complete tasks, even despite learning difficulties. They have a sense of purpose and a belief in their own abilities. They draw on resources; establish good relationships and networks; and draw on the presence of adult supports (Lessard et al., 2014).

Possible impact of resiliency on dropouts. Resilience research seems to suggest that a school culture that encourages strong student teacher relationships has the potential to foster the development of resilience on the part of students. The literature revealed that push out and fall out factors can be viewed through the understanding of students' desires to connect as individuals to the school, teachers, and peers. Student perception of the support they receive from the school can increase or decrease the desire to engage with the school (Fall, 2012). Within any school, there

are elements that support and diminish students' desire or ability to connect with the

larger group. The connection that students feel to school can influence whether they

complete their education or drop out (Finn, 1989).   Jennifer Fredericks adds to that

understanding by explaining that within schools there are multiple kinds of student

engagement: behavioral, affective, and cognitive. The concept of school engagement

is attracting increasing attention as educators look to it as a possible antidote to

declining academic motivation and achievement (Fredericks, Bloomfield, & Paris,

2004). The desire for connection and the cultural elements that support that connection

cooperate to create a culture that determines a student's sense of connection and

engagement to the school.   Examination of one school's culture through the lens of

this framework may provide insight into the elements of school culture or system that

may increase student resilience.

Summary

Factors that influence a student's decision to drop out are varied and complex.

Students who drop out often do so because of a variety of reasons that interact with

each other. The decision to drop out is also often the result of a long process that may

begin long before the student enters high school (Hammond, Linton, Smink, & Drew,

2007). Some of the influencing factors are outside the school and its sphere of

influence. The impact of family crisis, economic challenge, involvement in criminal

activities, or health issues are beyond the ability for schools to influence. Focusing on

these causes of dropouts provides little guidance to schools wishing to reduce their

dropout rate or improve their graduation rates. The research suggests that there are

elements within a school that may increase a student's ability or desire to stay in

school (Hynes, 2014). The school, therefore, has control only over the culture of expectation and support that exists to keep students engaged and to encourage them to persist.

Significant research exists about the potential causes for dropouts and even categorizes and measures the impact of the causes. In addition, the ability to predict, at an early stage, who will be influenced by these factors to drop out is also well supported in the literature. Although research suggests possible root causes of the dropping out, there is little understanding of how schools can prevent these factors from existing. Early identification of students who at risk of not graduating, often leads to interventions or remediation targeted toward individual students. These interventions take place, primarily, within the same environment that drove students to the decision to exit.

Research on resiliency provides insight into understanding how students can individually adapt to risks that they face. Dropping out of high school is certainly a risk faced by many students every year. This study seeks to examine the role resiliency may play in supporting students, potentially at risk of dropping out, in completing their education. More importantly, for schools, this study seeks to understand if a strong school culture can foster the development of resiliency within students.

This case study examines the culture of a large suburban high school. Over the past four years, quantitative data reveal that there is potentially an increasing sense of student engagement. Each of the past four school years the school's student population grew larger than anticipated. According to district data, much of this

growth was due to a higher than expected number of students returning to the school from one year to the next. In addition, in 2016 the school saw a large increase in the graduation rate (+5.6 percentage points) and a reduction by half of the dropout rate (4.1% to 1.9%). In 2017, the graduation rate increased an additional 2.5 percentage points, for a total gain of 8 percentage points over two years. Each year there were students who could be identified as potential dropouts, given their lack of early academic success. Yet despite that, fewer students with risk indicators of attendance, grades, or credits, left school prior to graduation, and more students returned for a fifth year to complete their diploma.

The results experienced at the school were produced over the course of four years when there were no major school-wide interventions introduced or programmatic changes made. There were factors, either within the school or outside, that influenced students' decisions whether to persist in school or not. The reasons for the increased student cohort size, retention of students, and graduation rates support the basis of the research purpose for the study. At the center of the study is an attempt to identify the forces, internal to the school, that may diminish the influence of push out factors and moderate the impact of fall out factors. School cultures can be environments that foster strong connections between the student and the school. A school's culture can foster the development or awareness of resilience, on the part of students, and supports their persistence to graduation. This case study attempted to identify ways schools create a supportive school culture that fosters student resilience and increases graduation rates.

Chapter 3: Methodology

This chapter outlines the mixed methods methodology used in this study in the pursuit of answers to the research questions. The purpose statement and research questions that ground the study are outlined. These guided the selection of the data tools and processes. Next, each of the specific data tools is explained. The participants, details of the sample, data collection, data analysis, and methods triangulation are described. Finally, key topics of ethical considerations, and the role of the researcher, are explained.

Purpose Statement

Students experience school both as individuals and as members of a school community. Any one student's journey through high school includes experiences that are shared by others, while some are specific to an individual student. This study sought to identify the factors, within a high school culture, that keep students returning to the high school under study each year and support their successful completion of their high school education. It attempted to understand the broad elements of the school's culture that may have influenced student decisions to remain in school. More narrowly, this study also sought to assess the impact of these cultural elements on encouraging resilient behavior among individual students as an asset to successful completion of high school.

Research Questions

1. What were the four-year trajectories of students at this high school who were at risk of dropping out at the end of the ninth grade?

2. For surveyed students, what do they believe were the factors within the school culture that supported their development of persistence and resilience and supported their academic success?

3. For interviewed students who were at risk of dropping out at the end of ninth grade, what do they believe were the factors within the school culture or structures that supported their persistence and resilience and encouraged their success?

4. For underrepresented minorities, were there any factors of the school culture or the structures at this school, that particularly influenced their academic success?

Research Framework

This study examined the large scale or macro aspects of school cultures (environment of the school, perceived value of education, extra-curricular activities), as well as the small scale or micro aspects (peers relations, teacher relations) that influenced individual student behavior. Combined, these focuses frame a study of one school's culture and allows for analysis of the elements that support or encourage student success, and more specifically, the development of individual resilience.

Rationale for Methodology

This study relied on both qualitative and quantitative data to construct a descriptive analysis of the research school. Student transcripts for all members of the graduating class were analyzed and provided key data elements. First, the transcript review identified a cohort of students who were considered at-risk for dropout at the end of the ninth grade. Additionally, the transcript review provided narrative portraits of each at-risk student's high school career. Finally, the transcript review provided some key findings about common trends of course failure and four-year trajectories.

A survey was administered to members of the graduating class of 2017 and was used to identify broad quantitative findings about the school's culture. The research supported survey provided results about three key cultural elements of schools that support connection and belonging (Lohmeir & Lee, 2011). Survey results provided quantifiable data about the culture at the school from the perspective of members of the graduating class.

Individual student interviews, of a small group of purposefully selected students, were conducted to identify the perceptions of individual students. The transcript reviews, survey, and interviews taken together created a descriptive portrait of the school and were the source data to answer the research questions.

Institutional Review Board (IRB) approval was granted by the school district to allow for access to student respondents for the survey and student interview participants. As required by the district IRB approval, permission was obtained from parents of students who were under the age of 18 from survey respondents and interview participants. The survey also allowed for students to opt out of participation.

Setting

The study took place in a comprehensive high school situated in a large suburban school district in the Pacific Northwest. West High School's total student population at the time of the study was 1,850 students in grades 9 to 12. At the time of the study, the ethnic distribution of the student body was 2% African American, 6% Asian, 29% Hispanic, 7% multi-racial, 1% Native Hawaiian/Pacific Islander, and 55% White. Within the student population, 43% faced economic challenges as indicated by their

qualification for the federal free and reduced lunch program. Students who participated in the English Language Learner program at any time in their education (Ever ELL) were 31% of the school population, and 16% were identified as students with special needs.

Recently the school's population experienced a dramatic increase in students remaining at the school from one year to the next. Demographic data from the school district showed a population trend that cannot be explained by normal economic, population, or residential growth in the area. The district demographer relied on historical trends, economic activity in the area, and patterns of residential growth to make student population projections for each upcoming school year. In the last three years, these projections were fairly accurate for the other high schools in the district. However, at West High School, over the past three years, the district demographer's data show that the number of students who returned from one academic year to the next far exceeded the projections in every grade, and these return rates were seen, in the district, only at West High School, and not in the other four high schools of similar populations. Also, in the year before the period of this research study, West High School experienced a dramatic increase by over 5.5 percentage points in the graduation rate for the class of 2016, as well a reduction by half, of the dropout rate. The graduation rate for the class of 2017 also showed an increase of 2.5 percentage points.

Design and Procedure

This study employed three tools to create a mixed methods study. Reviews of 442 transcripts were conducted in January, 2017, June 2017, and October, 2017, to assess

the common trajectories, and to track and adjust the cohort of students who were

identified as potential interview candidates. In June, 2017 the school connectedness

survey was administered to 194 members of the senior class, to assess the elements of

a school's culture that support student connectedness. Individual student interviews

were with four students conducted in the December, 2017 and January 2018, to

provide qualitative data on the perceptions of individual students. Figure 1 shows the

design and procedure methods for this study. Specific details of each method's

administration and data analysis are included in subsequent sections.

Triangulation

The use of more than one methodology of data collection can provide enhanced

trust in the results of the study. Denzin defined triangulation as the "combination of

methodologies in the study of the same phenomenon" (Jick, 1979, p. 602). It offers

the potential to complete or holistic portrait of what is being studied. The use of

triangulation has the potential to offer confirmation of findings within a study

(Hussein, 2009). Triangulation provides researchers, especially those using qualitative

data, the potential to be more confident in the results of their work. By employing

mixed methods, researchers may be able to confirm research findings across the data

sources. When data result from various sources and converge on similar findings,

researchers can take greater confidence in the results (Oliver-Hoyo, & Allen, 2006).

For this study, the methodology included three data sources: academic transcripts, a

survey of school culture, and interviews of students. Each data source drew on

samples from within the school population and were analyzed to inform discussion of

the four research questions that fame the study.
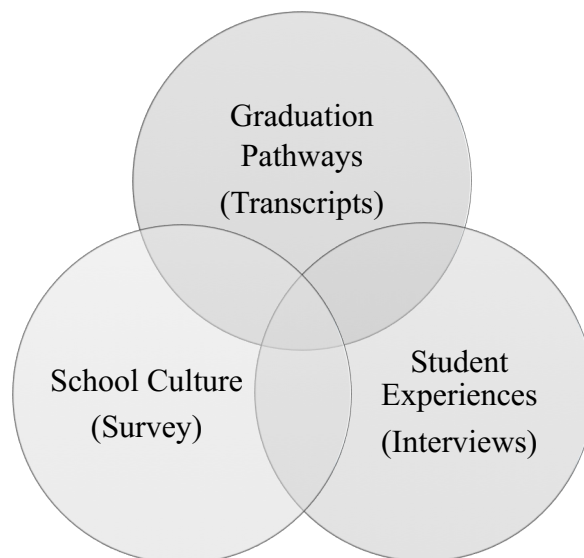
Figure 1. Data sources and collection tools .

Graduation Pathways: Academic Transcript Review

Transcript Review Instrument. A high school transcript is the full record of individual course taking, course credit accumulated, and grades earned for every student. Transcripts include the number of credits earned each semester and the grades (A-F) earned for each course. Students at West High School must acquire 24 credits to graduate. Each transcript includes a section that shows the credits earned in each of the required subject categories (English Language Arts, Mathematics, Physical Education/Health, Science, Social Studies, and Electives). West High School operates on an eight-period block schedule. Students take up to five classes every other day on an alternating schedule. Each year, students can take up to 14 semester classes and all students take a year-long advisory course. Students who pass all 14 courses, earn seven course credits per year. Student grade point averages are computed by averaging the point values granted for each academic mark (A = 4.0, B = 3.0, C = 2.0,

D = 1.0, F = 0). Each students grade point average (the average of course grades each

semester) is also included. Maintained by the school, it is the most accurate record of

the academic journey for each student. The transcripts were downloaded from the

computerized records data base, Synergy, three times during this study. The first

download took place in January, 2017 at the end of the first semester and the second in

June, 2017 at the completion of the school year, and again in October, 2017. Due to

fluctuations in the student population, the number of students at each transcript review

changed. One additional and official source of graduation status was used in October,

2017. In the fall, each school district is required to submit, to the state, a final and

official report of the graduation and dropout status of all students for each school.

This is considered the most accurate assessment of the status for each student at the

end of the year. This report was used to ensure that interviews were conducted only

with students who graduated.

Transcript review sample. The participants in this study were members of the

school's graduating class of 2017. At the start of the 2017-2018 school year the class

included 442 students. Over the course of the year students left the school for a

variety of reasons and others transferred into West High School. Some students

transferred to other schools, graduated early, or dropped out of school. In addition,

there were six students who were at West High School as exchange students, four who

were on alternative (attendance only) certificates, and two who were on modified

(adjusted credits) diplomas. In January, 2017, after the first semester of the school

year, the transcripts of all remaining members of the senior class were reviewed. In

West High School's state, graduation from high school requires 24 credits (State

Department of Education, 2017). Therefore, students who did not earn six credits by the end of the freshman year were identified as at risk for not graduating. At that time 426 of the 442 senior students were still enrolled in West High School and were considered on track to graduate in June, 2017.

An initial review of each transcript identified students who, statistically, would be predicted to be at risk as freshmen. Given the block class schedule students take seven courses, plus an advisory, every semester. In one-year students who pass all classes can earn seven full year credits. In a first level analysis of the transcripts, all students who did not achieve the expected seven credits at the end of the ninth grade were identified as not achieving at the expected rate. Further analysis divided this group into two sub-categories, underachieving and at-risk. Underachieving students were those who earned more than six and fewer than seven credits. At risk students were those who earned less than six total credits during the ninth grade. Six is less than one quarter of the total credits (24) required for graduation and a research supported indicator of academic risk (Allensworth & Easton, 2007).

The pool of academic transcripts reviewed included members of the class of 2017 for West High. The pool included students who were enrolled at the time of the reviews in January, 2017, June, 2017, and October, 2017. To ensure a consistent analysis across grade levels, only students who attended West High School starting in the ninth grade, and remained until graduation or dropping out, were included in the transcript review. Due to student enrollment changes, the total number of students fluctuated some between each transcript review point. Table 2 shows the racial distribution of the West High School, underachieving students who did not achieve

seven credits as freshmen, and the at-risk cohort who earned fewer than six credits as freshmen.

Table 2: Racial distribution, on-track, underachieving, and at-risk students at the conclusion of ninth grade by n and percentage

	West HS		On-track		Underachieve		At-Risk	
	n	%	*n*	%	*n*	%	*n*	%
African American	15	3.4	11	3.3	3	5.4	1	1.9
Asian/Pacific Islander/American	19	1.1	15	4.4	1	1.8	3	5.6
Hispanic	108	24.4	58	17.3	17	30.4	33	61.1
Multi-Racial	28	6.3	23	6.8	4	7.1	1	1.9
White	272	61.5	225	67.2	31	55.4	16	30.0
Total	442	96.7	332	72.7	56	12.7	54	12.2

Note. Percentages do not equal 100 due to rounding

Table 3 and table 4 show the gender distribution and the percentage of students receiving either Special Education or English Language Learner supports in the class of 2017.

Table 3: Gender distribution within school, underachieving, and at-risk groups by n and percentage

	West HS		On track		Underachieve		At-Risk	
	$N = 442$		$n = 335$		$n = 56$		$n = 54$	
Females	207	53.2	159	47.5	34	32.7	14	25.9
Males	201	46.8	137	40.9	24	67.3	40	74.1

Table 4: Participation in support services as a percentage of all, underachieving, and at-risk groups

	West HS		On track		Underachieve		At-Risk	
	$N = 442$		$n = 335$		$n = 56$		$n = 54$	
Ever ELL	104	28.1	82	24.5	12	21.4	15	27.8
SpEd	55	12.4	36	10.7	3	5.4	16	29.6

Transcript data analysis. Transcripts for all 370 of the members of the senior class were reviewed in January, 2017. Synergy is a database system maintained by the school district, that contains the academic records for all students. The database for the transcript review included the downloaded transcripts for all members of the Class of 2017, as of January, 2017. An initial review of each transcript identified students who, statistically, were not achieving as expected as freshmen. Any student who did earn the expected seven credits was identified as underachieving. A deeper analysis of the transcripts narrowed the data cohort to those considered at-risk at the end of the freshman year. At-risk students were those who earned less than six credits during the

ninth grade. The transcripts of the at-risk cohort were reviewed to identify common

trajectories of course completion and credit accumulation over the years at West High

School. Finer review of each of these trajectories included analysis of course taking

patterns, course failures, attempts at credit recovery, and repeated grades for graduates

and non-graduates. These understandings pertained to courses often failed or the

interventions (summer school or credit recovery) that were introduced to adjust

trajectories along the way.

The transcript analysis involved several layers. A review of every transcript in the

class of 2017 identified the school attended and the number of credits earned during

the freshman year for every student in the class. This review identified the cohorts of

students who identified as underachieve (between 6.0 and 6.99 credits earned) in the

ninth grade and those who were considered at-risk (fewer than 6 credits earned) at the

conclusion of the freshman year. Further descriptive data analysis included multiple

frequencies to identify the distributions within each of the groups according to race,

gender, access to additional years of schooling, and support services provided.

School Culture: Survey

Survey instrument. The survey used in this study was constructed primarily

from The School Connectedness Scale (SCS) developed by Jill Hendrickson Lohmeier

and Steven Lee (2011). The 54-item survey was based on previous work by

Goodenow (1993), Kurcher and Lee (2002), and Loukas, Suzuki, and Horton (2006).

Lohmeier and Lee revised the questions somewhat in their work to provide greater

clarity and consolidate questions. The SCS was designed to assess the impact of three

elements of a school culture: belongingness, relatedness, and connectedness. Each

element was defined (Table 5) and then aligned questions in the survey to assess the

particular element of the school culture. The survey was constructed to assess the

elements of the school's culture that supports the creation of student connectedness to

the school. Questions in the SCS were organized in a 3x3 matrix that crossed three

relationships (school, adults, and peers) with three levels of categories of support

(general or "belonging," specific or "relatedness," and engagement or

"connectedness"). In each of the cells of the matrix three types of questions were

written, one that asked about observable interactions, one that asked about feelings,

and a third that asked questions phrased negatively to avoid bias. The survey used a

five-point Likert scale for each question that assessed frequency of an experience.

The possible responses were *strongly agree, agree, neutral, disagree*, and *strongly

disagree.*

Table 5

Cultural elements of the School Connectedness Survey

Cultural Element	Definition
Belongingness	Perceived support in general from other students, school adults, and the overall concepts of school and education; includes the student's sense of membership and acceptance in the student body as a whole.
Relatedness	Perceived support from specific sources such as the student's teachers, school friends, classmates, classes, or membership at the student's current school; the student's actions are not presumed to be deliberate and support is acknowledged but not actively sought out.
Connectedness	Demonstrating effort in and enjoyment of schoolwork and school activities or demonstrating active involvement in and valuing of school adult or peer relationships; student explicitly values specific relationships or activities and deliberately seeks out support.

(Lohmeier & Lee, 2011)

Lohmeier and Lee reported that the SCS has strong validity and high reliability. The SCS was evaluated for readability and content validity by several of their colleagues (Lohmeier & Lee, 2011). Cronbach's alpha is a measure of internal consistency and assesses to what extent all of variables that make up the scale are measuring the same thing. The value of Cronbach's alpha varies between 0 and 1, with 1 being a perfect reliability. A value above .7 on the scale is considered acceptable for research studies (Muijs, 2011). In 2008 an administration of 18 items from the SCS was conducted, and the Cronbach's alpha for those items was $\chi=.798$.

In 2011, Lohmeier and Lee conducted another trial of the SCS. Following that administration of the survey, they report two Cronbach's alpha scores for the tool, (χ = .93) for suburban schools and (χ = .81) for urban schools (Lohmeier & Lee, 2011). The SCS is reported by Lohmeier and Lee as a valid instrument for research purposes. In assessing the validity of the SCS, exploratory analysis was initially conducted, followed by rotated factor analysis. The results showed seven key factors with loadings of > .3, accounting for 44% of the variance (Muijs, 2011). The analysis by Lohmeier and Lee provides assurances the SCS is a valid and reliable tool for use in schools.

  Trustworthiness. Lohmeier and Lee evaluated the SCS in two high school setting in the Northeast, urban and suburban. The total available student population in the urban setting was 3,000 students in six different urban high schools, and the suburban population was 1,940 students in one suburban high school. The 669 participants in their study were students in ninth through twelfth grades and drawn from both settings. Table 6 represents the comparison of the participants in the Lohmeier and Lee study with that of West High School.

Table 6

Comparison of Racial Demographic Percentage of SCS test schools and West High

School

	Suburban School	Urban School	West High School
Asian	2.5	2.7	6.0
Black	2.2	2.8	2.0
Hispanic	23.3	89.1	29
White	70	5.4	55

Note. Racial categories used in Lohmeier and Lee may not match West High School

The racial distribution of the suburban school distribution and total student population were relatively the same as West High School.   The urban setting was predominantly Hispanic as compared to 29% at West High School. In both the study groups and West High School females were approximately 50% of the sample. The number of students who face economic challenges at West High School was 43%, at the time of the study, falls between the rates for suburban school (33.5%) and urban schools (76.8%)in the SCS study schools. (Lohmeir & Lee, 2011). The similarities in the school demographics along with the finding of the Lohmeier and Lee study support the use of The School Connectedness Survey as a valid and reliable tool for this study.

In this specific study, three of the original questions from the SCS were eliminated. The questions were, "I think my classmates are stupid," "I think my teachers are stupid," and "I feel stupid cheering at games" (Lohmeier & Lee, 2011). These questions were eliminated because the language used a pejorative term, 'stupid'

that was not clearly defined. Several demographic questions were added to the survey: age, gender, number of years in high school, number of years at the study's high school, and self- reported grade point average. These questions were necessary to define the population more specifically to disaggregate the data to allow for finer granular data analysis. The survey for this study was comprised of 54 total questions, six were demographic and 48 were from the original SCS. The questions were spread relatively evenly over the three cultural elements. Table 7 includes a sampling of the questions from the survey for each of the three cultural elements assessed by the tool.

Table 7

Sample Survey Questions by Element of School Culture

Cultural element	Sample questions from study survey
Belongingness	I think the things I learn at school are useless. Teachers at my school care about their students. I feel like I fit in with the other students at my school.
Relatedness	My teachers give me extra help when I need it. I feel comfortable asking most of my classmates for help with a problem. I feel like this school is the right place for me.
Connectedness	I encourage other students to get involved in school activities. I would rather go to a different school. I like to make my teachers happy.

(Lohmeier & Lee, 2011)

Survey administration. The survey tool, Qualtrics, was used to create and administer the survey. Qualtrics allows administration of the survey via the internet and was accessible on several types of electronic devices. Access to devices by all students was possible because the school is in a district that provides laptops to each

student. Before the first administration, the survey was piloted with a small group of senior students to determine readability and timing. The students reported that the survey was easy to take and took approximately 10 minutes.

In the overview students were informed that they were not required to take the survey and could choose whether to do so or not. Students who were under 18 were given a parent permission form and asked to return it before completing the survey. Both of these steps were included to comply with the directives within district's IRB approval. While the researcher was giving the overview, the classroom teacher sent all of the students in the class an email that included a link to the Qualtrics survey. Students took the survey during class time.

Survey sample. In June 2017, the survey was administered in senior English classes. Since all seniors enroll in an English class, current seniors who were in attendance, had an opportunity to complete the survey. The survey was administered in a total of 13 classes and 194 students completed the survey. The responses represent 43.9% of the senior class. The researcher visited each class and gave a brief overview of the survey (see Appendix B) and asked students to complete the survey.

Survey data analysis. The surveys were analyzed using various quantitative analysis methods to determine any significant relationships evident within the entire sample and for characteristics within the larger sample. Survey questions were sorted by the three elements of school culture that Lohmeier and Lee (2011) used in constructing the survey tool: belongingness, connectedness, and relatedness. Data for the questions that aligned to each element of school culture were analyzed individually and combined to form full category data points. The first analysis compared the

responses for all of the questions in the category and comparisons were made among the three elements. Data analysis sought to identify any significant differences across the elements of school culture related to gender, GPA, or years at the school. More finely grained analysis by individual question was performed within each of the element categories.

The survey data included nominal and ordinal data and were analyzed using a variety of univariate and bivariate methods. Initial raw data came from a downloaded data base from the Qualtrics application and the data tool, SPSS was used to run the various calculations. The first level of analysis included frequency counts on several variables, including gender, years in school, and GPA to determine the characteristics of the sample population. Next, frequencies for each question identified the distribution of responses on the Likert scale for each question. Comparative analysis of the spread of responses for each question identified those with the highest rate of positive response (strongly agree and agree). In addition, comparison of the combined responses led to the ranking of the three elements of culture by the degree that the element was perceived by respondents to be present in the school culture. Muijs (2011) suggests the use of interquartile range as a measure of spread for ordinal variables. The strongly agreed and agreed results were combined, and the disagree and strongly disagree were combined, and neutral was left as reported. This combination created a degree to which the element of the culture was present or not in the school. Ranking of the elements by the level of agreement with the statements created a rank order of the elements.

Bivariate analysis shows relationship between two variables and allows one to see if the relationship is statistically significant (Muijs, 2011). For further analysis of these relationships cross tabs and chi-squares attempted to identify relationships within the variables. Cross tabs were run for all of the survey questions and variables. Due to the low number of expected responses in some cells significance values were not available.

Next an analysis of questions within each of the cultural elements compared questions by gender and years in school to discover potential patterns of relationship between the independent variables of years in the school, GPA, or gender and the dependent variables which are the perceptions and attitudes reflected in the survey responses.

Student Experiences: Interviews

Interview instrument. A semi-structured interview protocol was employed for this study. The questions for the interview were taken from Luster's At-Risk High School Graduates: Succeeding Despite the Odds (Luster, 2015). In Luster's dissertation, the research question was "(w)hat can educational stakeholders learn from former students who successfully graduated from high school who had previously been identified as "at-risk" for dropping out? (Luster, 2015, p. 103). This is similar to the research purpose and questions of this study. Luster's interviews were with students in the sixth grade who were identified as at-risk of dropping out of school. She conducted her interviews after students left the school. Similarly, students in this study were interviewed after leaving the school. The students at West High School differ from Luster's study as they were high school students. Some

questions were added to allow for discussion of middle school (grades 6-8) experiences, and high school experiences. Luster's questions provided a concise, yet rich, set of questions. Although the students interviewed are from different grade levels, the Luster interview tool offers ample opportunities for students to describe the assets and challenges they experienced and to make observations about the elements of the school culture that supported or hindered them along their high school journey.

Luster's interview questions were designed for middle school students and some modifications were made to align the questions to the experiences of high school seniors at West High School. An interview question was added to provide an opportunity for discussion of the role of resilience in the academic life of students. Additionally, Luster recommends two possible improvements to the questions, or follow-up questions, within the limitations section of her thesis. She suggests adding questions regarding the variables that place a student at risk and conversation about possible interventions that might have helped. Also, she suggests adding questions about student perceptions of education and the involvement of their parents (Luster, 2015). The purpose of the interview, within this research design, at West High School, is to assess the impact a school culture can have on the development of resiliency on individual students. Several of the questions in the interview offered the opportunity for students to provide their perceptions on this (Table 8). Also, the transcript review for this study, conducted prior to the interviews, also offered key understandings that informed the interview process. In addition, other questions are designed to assess the impact of the school culture on individuals who were at risk of dropping out (see Appendix B).

Table 8

Sample Interview questions by focal influence on resilience

Focal Influence	Question
Development of individual student resiliency	When you think about why you went to school every day, what reasons made you go?
	Was there a moment during your high school journey that you can remember when you thought about dropping out? Is so why? What made you stay?
	Was there a moment during your high school journey that you can remember that was the turning point for you that led to graduation? If so, please tell me about that.
Impact of school culture on at-risk students	During high school were there any people who helped you along the way? Can you describe the role they played in your success?
	During high school were there any people who helped you along the way? Can you describe the role they played in your success?
	During high school, were there any people who made it difficult for you to succeed? Can you describe how they affected your journey?

Interview sample. The interview cohort included only students who, in the January review, were determined at-risk during their ninth-grade year and who successfully graduated in June, 2017. The final determination of the interview cohort in October, after the final state graduation verification, ensured that all of the potential interview candidates were graduates.

A structured process identified potential interview participants. Transcripts for every student in the class of 2017 were individually reviewed, by the researcher, at the end of the first semester of the 2016-2017 school year. This review was used to identify students who attended the West High School during their freshman year and were still enrolled in the school. The transcripts of those students were then reviewed to determine the number of credits earned during each of the first three years of attendance at the high school. Several categories of students were excluded from the study. Because their experience in an American high school was limited, foreign exchange students and students who began their high school studies in another country for freshmen year were excluded. In addition, students who were working toward an alternative certificate were also excluded from the cohort. An alternative certificate recognizes completion of an attendance requirement and not specific graduation requirements. This document is generally provided for students in special education programs who face significant cognitive or physical challenges (State Department of Education). Of the class, 59 students did not attend the school during the freshman year and were excluded from the study. Of the current class of 2017, 360, or approximately 85% of the students attended West High School their freshman year.

From the narrowed pool of students, the study sought to identify students who, early in their high school career, could be considered at risk for dropping out or not graduating. Allensworth and Easton's (2007) research indicates that credits earned during the freshmen year is a strong predictor of high school completion. Students who experience academic challenges such as failing courses or the inability to achieve adequate credits toward graduation are at a significantly higher risk of dropping out

(Allensworth & Easton, 2007). For the purposes of identification of this study, the research cohort included only students who did not earn one quarter of the credits necessary for graduation by the end of the ninth grade. In West High School's state, graduation from high school requires 24 credits (State Department of Education, 2017). Therefore, students who did not earn six credits by the end of the freshman year were identified as at risk for not graduating. Transcript reviews determined that there were 54 students who attended the school for ninth grade, who were still at the school for a senior year, who did not earn six credits by the end of their freshman year. Of that number, 31 were on track to graduate at the end of the first semester of the 2016-2017 school year. These 31 became the potential interview participants for the purposes of this study. In October, 2017, another assessment of the interview pool was completed. This final review was based on the validated graduation list submitted to the state. At that time, it was determined that of the 54 originally identified as students who were at-risk as freshmen, 25 students graduated in June, 2017. One of the graduates was a student in a specialized program who received a modified diploma and was removed from the interview sample. Among the students who, in January, were predicted to be on track to graduate, 24 students were not among the graduates in June. Of that number, 10 are returning to the school for an additional year, and 2 of the students who were in their 5th year in the previous year are returning for a sixth year. Four students transferred to other schools. Of those who transferred, two students transferred before the spring and were not included in the final transcript evaluation and two transferred to another school after not graduating in June,2017. Nine students were reported to the state as dropouts and one completed a GED. From

the original identified at-risk cohort, there were 24 students who completed all requirements and graduated in June of 2017. These 24 were the final pool of potential interviewees.

A purposeful sampling method was used to identify a representative interview sample from the students from the potential interview population. Stratified sampling is a method to ensure that the sample includes the desired representation of subgroups, or strata, from the population (Miles, & Gay, 2016). Several key characteristics were considered important to include in the purposeful sampling. A sampling model was created to generate a potential interview sample that most closely approximated the total at-risk population. Proportional stratified sampling ensured that certain strata were in the same portion of the sample and they appear in the interview population (Miles, & Gay, 2016). Efforts were taken to ensure that the race, gender, and number of years in high school were represented in the interview sample. Each student was coded by number of years taken to graduate, gender, and race. A matrix of each strata determined the proportion of each combination of characteristics and were included in the interview sample. The composition of this group is reflected in Table 9.

Table 9

Composition of potential interview candidates by race, gender, and years to graduate

| | Number of years to graduate | | | | | | | |
| | Total
n = 24 | | Four
n = 17 | | Five
n = 6 | | Six
n = 1 | |
Race	Males	Females	Males	Females	Males	Females	Males	Females
Hispanic	11	3	6	2	4	1	1	0
White	7	3	6	3	1	0	0	0
Total	18	6	12	5	5	1	1	0

Note. Only Hispanic and White students represented in at-risk cohort

Multiple attempts were made to contact students to arrange for interviews. This effort began shortly after the final graduation status of every student was validated in October, 2017. Students were contacted on their own phones or phone numbers listed for family members. Four student interviews were conducted. Table 10 shows the demographic descriptions for each interviewed student. Students selected as potential interview participants were contacted by phone or email to set up an appointment. The order of students was created through a random draw within each of the demographic categories of participants (see participants selection). After two attempted contacts the next student on the list was contacted. The purpose of the study and interview were explained in the invitation to participate. To create a comfortable setting for students, the interviews took place at a coffee shop, the high school, or

other appropriate location of the interviewee's choosing. As required by the IRB

approvals, participants were provided a brief description of the purpose of the study in

advance along with two of the questions. These two questions supplied were: Tell me

briefly about your educational journey from elementary school through high school.

Was there a moment during your high school journey that you can remember that was

the turning point for you that led to graduation? The interview began with an

introductory comment (see Appendix B) that outlined the purpose of the interview.

Each interview was recorded using an Olympus WS-852 voice recorder and on a

cell phone as a backup. Each interviewee was provided a copy of his or her academic

transcript for review and a copy of the interview questions. Permission to record the

interview was granted by each interviewee before it began, as required within the IRB

approval. While conducting the interview, the interviewer took notes in a field

notebook regarding the setting, time, observations about the perceived comfort level of

the graduate, interruptions, and other pertinent details (Miles, Huberman, & Saldana,

2013). As soon as possible after completing each session, the audio files were

uploaded and transcribed using the TRINT online service. Transcripts were reviewed

and edited to ensure that the transcripts were accurate.

Table 10

Descriptions of Interview Participants

	Gender	Race	Years in HS
Student 1	Female	Hispanic	4
Student 2	Male	White	4
Student 3	Male	White	4
Student 4	Male	Hispanic	5

Interview data analysis. Saldaña offers guidance about the purpose of coding and suggests that coding should harmonize with the conceptual framework of the study, and address the research questions (Saldaña, 2009).   After reading each interview transcription two rounds of coding were conducted. The first cycle of coding used the three thematic elements, identified by Lohmeier and Lee, in the survey tool: belonging, relatedness, and connectedness. Some researchers label these as provisional codes which are derived or predicted from prior investigation (Miles & Gay., 2016). After conducting first cycle coding on the first two transcripts, some refinement of the coding methodology and notetaking. A second level of coding looked for patterns within the responses. Patterns are inferential in nature and identify emerging themes or explanations. A pattern coding approach is a sound practice for research studies that are interested in social networks or patterns of human relationships (Saldaña, 2009). In addition, key quotes, vignettes, or observations were identified in the transcripts.

Mixed Methodology

The three tools used in this study provided multi-layered data for use in considering the research questions. Each tool drew from all or portions of the West High School graduating class and provided supporting and potentially confirming data across tools (see Figure 2)

Transcript Reviews	• 442 Students • Purpose: Identify common trajectories • Purpose: Identify at-risk students
Surveys	• 194 student sample • Purpose: Assess elements of school connectedness
Interviews	• 4 graduates • Purpose: Individual narratives of at-risk students
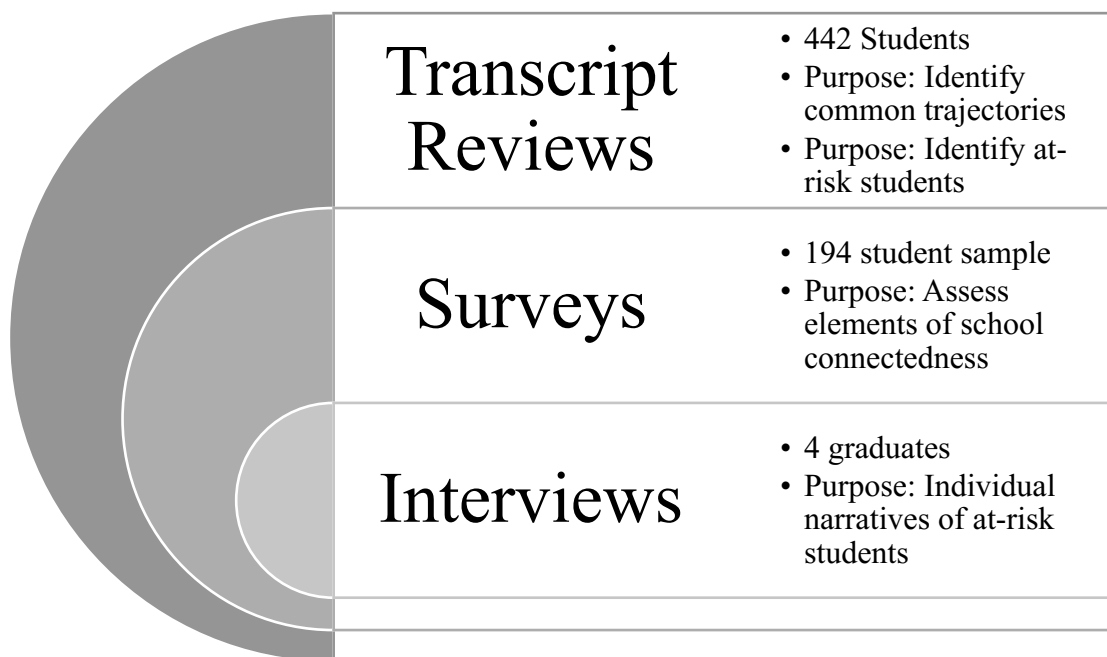
Figure 2. Design of mixed methodology.

Ethical Considerations

Institutional review board approvals. Prior to beginning the study, permission was sought and granted by the Institutional Review Board (IRB) at the University of Portland in April of 2017. The IRB request included the proposed survey questions, proposed interview questions, and consent forms for students under the age of 18. Permission was granted for the study by the university's IRB contingent upon approval by the district and with the requirement that any adjustments requested by the

district be followed. Upon receipt of the university's approval, an IRB request was

forwarded to the school district. The district's IRB committee approved the research

proposal at the end of May 2017 with special attention to three required adjustments to

the research design. Passive consent was required during administration of the survey

and students were to be informed that they were not required to take the survey. The

district also requested that students under the age of 18 be asked to complete a parental

permission form before completing the survey. These two expectations were included

in the IRB approval for both the University of Portland and the school district.

Finally, the district required that the researcher wait to conduct interviews with

students until after they graduated from the high school in June 2017. All of these

requirements were included in the procedures of this study.

Several ethical considerations informed this study. The researcher, at the time of

the study, was a member of the school staff and, therefore it, was necessary to

maintain objectivity during the interview and especially during the data analysis. A

second consideration was the need to strike a balance between familiarity with the

students being interviewed and the researcher's need to create some professional

distance between the researcher and former students. Third, there were comments

made during the interviews that were very complimentary of the school, staff, and the

culture of the school as well as comments that were not positive. As someone familiar

with the school the researcher, needed to remain neutral in responding or reacting to

comments made by the interviewee. Perhaps the greatest challenge came, for the

researcher, in crafting and directing follow-up questions. Follow-up questions should

create an opportunity for the interviewee to expand on a response or give greater

detail. It was necessary to maintain an awareness of the potential to influence the interview in the selection of follow up questions and to ask questions that sought more detail without guiding the interviewee's response.

Statement of positionality. One of the challenges of this study, for the researcher was personal closeness to the subjects of the study. Attention to the positionality of the researcher and the inclusion of methods to minimize the potential bias are important. Nonetheless, it is of value to describe the aspects of positionality particular to this researcher and the setting.

Background in high schools. As an educator with over 33 years of experience as a teacher and administrator, school cultures and students are very familiar to me. All of my experiences as an educator took place in high schools. All of my experience with students, with school culture, or school improvement took place in the same level of school as this study. Although the schools in which I worked were somewhat different the general structure and organization of each were very similar. I am very familiar with the workings of high schools and so have a perspective on the culture and structures that is influenced by that grounding perspective. Balancing that perception is another aspect of my past as an educator. For parts of my time as a teacher and administrator I participated in school improvement efforts focused on breaking large high schools into smaller elements. These involvements give me a perspective about the value of school culture and the important role it can play in shaping student academic success.

Indirect and direct contact with students. As a veteran high school educator my experience brought me into regular indirect and direct contact with students. These interactions have certainly shaped my perception of students and my familiarity with their experiences in high school. Over the past 33 years, I was directly involved, as a teacher and administrator with a significant number of the students at the high schools in which I worked. As a classroom teacher I endeavored to create a welcoming and student-centered classroom environment that brought me into contact with students. As an administrator I strive to encourage the same environment in the entire school. These indirect and direct contacts with students certainly place me in a position of strong familiarity with students in general and with some students in particular. This familiarity provides excellent background for this study and must also be present during administration of the three data tools, analysis, and discussion.

Positionality and participants. In my role as a faculty member of the school in this study I have indirect and direct contact with the students being studied. For the past six years I worked at the school in this study. As the principal I have indirect contact with every student. I make appearances in assemblies, I am frequently in classrooms, hallways, and present at after school activities. Students know who I am. Directly, I had contact with most of the students who participated in completing the survey. I appeared in their classrooms to administer the survey. There was indirect and direct contact with the students interviewed to varying degrees.

Interviewee profiles. Four students were interviewed for this study. I had varying degrees of prior interactions with each of the students interviewed. It is helpful to keep prior interactions in mind while the interviews were conducted.

Student One is an Hispanic female who attended West High School for four years.

She attended school regularly and also worked after school. Student one attended a

limited number of after school activities and was not involved in school clubs or

athletic teams. I had limited direct contact with this student during her time at West

High School.

Student Two is a White male who attended West High School for four years. He

was very involved, as a participant in a number of after school activities and regularly

attended school activities. During his four years at West High School I had numerous

interactions with this student.

Student Three is a White male who attended West High School for four years. He

attended school regularly and received support from Special Education for learning

challenges. He did not participate in or attend after school activities. I had limited

interactions with this student.

Student Four is an Hispanic male who attended West High School for five years.

He worked outside of school and for the first three years of high school did not

participate in or attend after school activities. During his last two years at West High

School he began to participate in a limited number of after school activities. I had

limited interactions with him the first three years and more his last two years.

Bias. As a member of the school staff, there was consistent direct and indirect

contact over several years with each of the students in the class. Careful reading of the

opening text for the survey and clear explanation that students were under no

obligation to complete the survey were essential in minimizing the influence on the

students by the role of the researcher. As Merriam (1988) observes, that although it is

impossible to set aside the human factor in the interaction of the interview, the researcher must strive to remain neutral and nonjudgmental regardless of what the respondent says. During interviews, attentiveness to the way interviews were conducted, and precision in following the same processes during each session attempted to minimize the influence of the researcher. The fact that each of the interviewees had successfully graduated provided some insulation from any feelings of authority that graduates might feel in relation to the researcher. Finally, the proximity and direct involvement of the researcher to the school culture demanded an open-minded perspective on the findings. Attention was given to ensuring that the findings were not confirmations of perceptions of the culture or aspirations for the school. This was the aspect of the researcher's role that was the most challenging.

Summary

This investigation sought to identify the factors within high school cultures that keep students returning to high school each year and support their successful completion of their high school education. The research design attempted to offer qualitative and quantitative data to answer the research questions. The narrow focus of the research design to one school, one grade, and to only students who were potentially at risk was intentional. A narrow focus of the design generated specific data relevant to the lived experiences of students who successfully completed high school despite earlier challenges.

Through multiple types of analysis, the design intended also to offer a broad view of one school's culture and its influence on individual students. Transcript reviews identified common patterns of course taking, course failure, and the effects of credit

recovery strategies. The survey design assessed the positive or negative role that the school culture (sense of belonging in the school, connectedness to the school, and how well students relate to the school). The interview assessed student perceptions of the development of their own resiliency and persistence. Taken together, the tools offer a triangulated understanding of the potential influence a school culture can have on decreasing the rate of students who dropout of high school.

Chapter 4: Results

Introduction

This mixed methods case study sought to collect data from three sources at one comprehensive high school in the Pacific Northwest. The purpose of the study was to develop a multidimensional understanding of the way school cultures foster resilience and support students in their pursuit of a high school diploma. The study drew on three methods including, an analysis of student academic transcripts, a quantitative survey of student perceptions, and personal interviews with students. Transcript evaluation revealed several common trajectories students followed that ended in graduation. Survey results provided a portrait of student perceptions about key elements of school culture that may or may not support student success. The results of both of these methods informed me when I conducted the individual interviews with graduates from the high school studied. Analysis and coding of the interviews added the last component of the data. For the purposes of this study, the findings of each piece of the methodology were analyzed and described separately. Then, drawing on the key findings of the literature review, the data from each data the three sources were drawn together, in combination to answer the following research questions:

1. What were the four-year trajectories of students at this high school who were at risk of dropping out at the end of the ninth grade?

2. For surveyed students, what do they believe were the factors within the school culture that supported their development of persistence and resilience and supported their academic success?

3. For interviewed students who were at risk of dropping out at the end of ninth grade, what do they believe were the factors within the school culture or structures that supported their persistence and resilience and encouraged their success?

4. For underrepresented minorities, were there any factors of the school culture or the structures at this school, that particularly influenced their academic success?

The chapter begins with the results of an evaluation of academic transcripts in order to answer the first research question pertaining to the pathways students generally followed through graduation. This review provides a portrait of three common paths students followed through high school. In addition, the transcripts offer details about the course failure patterns of the at-risk group of students and the academic challenges faced by these students. Next, the results of the student survey are presented. Analysis of these data provide an understanding of the overall school culture that students, who were potentially off track for graduation, were exposed to as they moved through high school. Then the results for the interviews are presented and provide a rich understanding of the individual, lived experiences of the at-risk students. For each research question, the data most relevant to the question are describe.

Research Question: What were the four-year trajectories of students who were at risk of dropping out at the end of the ninth grade?

Transcript review

Reviewing the academic transcripts offered the best tool for the analysis of this question. These documents tell the academic story of each student in the class of 2017. Of the 443 members of the senior class, 366 attended West High School as freshman.

The focus of this study was the experiences of students set within the context of one particular high school's culture. Within the class of 2017, 77 students attended other high schools for their freshman year and were not included in the study. Therefore, the transcript review included only students who attended West High School for four or more years.

   General trends in trajectories toward graduation. From this review, three common trajectory patterns became clear. Some general findings about the specific of each path became clear from the transcript reviews. A freshman student at West High School generally takes seven graded semester courses. For each course completed, students earn .5 credit. Students who pass all courses taken in a year can earn seven credits. For the class of 2017, the average number of credits earned during the ninth grade was 6.46, and the mode was seven, (see Table 11). Of the students in the class, 70.3%, earned seven or more credits during the ninth-grade year. Students who earn seven credits are defined as achieving at the expected rate. Most of the students in the class earned the expected seven credits as freshman and were thus achieving. Several students earned more than the expected credits because their ninth-grade academic journey began in a school or a high school in another country. These students often were able to earn more than the expected seven credits during their first year in the high school they attended. There were 134 students, who failed to earn the expected seven credits during the freshman year. Of those students, 110 attended West High School their freshman year and 24 did not. At West High School, students who failed one or two classes earned 6 or 6.5 credits. There were 56 students who were defined as underachieving since they earned 6 to 6.5 credits during their freshman year. There

were an additional 54 students who earned fewer than six credits in the freshman year and were defined as at risk. As described earlier, the at-risk designation is a research confirmed indicator (Allensworth & Easton, 2007), because these students did not earn one-quarter, or six credits, by the end of the freshman year. Table 11 shows that nearly one-third of the members of the class of 2017 were underachieving or at-risk by the end of their freshman year.

There are differences in the percentages of students in each category between those who attended West High School all four years and those who did not. The percentage of students who attended West High School as freshmen and were achieving (69.9%) is 20.2 percentage points higher than the percentage of students who were not achieving (59.7%). Also, fewer students, by percentage, were underachieving or at-risk in the four-year cohort as compared to all students and those who attended high schools other than West High School. In the group of students who did not attend West High School, 22.1% were underachieving after the ninth grade, and 18.2 were at-risk. In comparison, 15.3% of the students who attended West High School as freshmen were identified as underachieving, and 14.8% at-risk. In both groups, the number of at-risk students is smaller than the number who were underachieving. Finally, the percentages of students who were at-risk at ninth graders who attended West High School or not are significantly lower than the 82% final graduation rate for the Class of 2017.

Table 11

Distribution of credits earned by member of Class of 2017 during ninth grade by

credit category and years attended West High School

	All N = 443		≥ 4 years N = 366		≤ 4 years N = 77	
	n	*%*	*n*	*%*	*n*	*%*
Achieving 7 or more	302	68.1	256	69.9	46	59.7
Underachieving 6.00-6.99	73	16.5	56	15.3	17	22.1
At-risk Less than 6	68	15.3	54	14.8	14	18.2

Characteristics of underachieving and at-risk groups. The next level of

analysis focused only on the students who attended West High School for their entire

high school career and who were in the underachieving or at-risk categories. Several

patterns emerged from this analysis related to the demographic characteristics of these

students including race, gender, and participation in special education or English

language learning programs.

Race. The racial composition of the underachieving and at-risk groups differs,

particularly in the percentage of White and Hispanic students. Table 12 depicts the

racial distribution of the underachieving and at-risk students. The demographics of the

underachieving group aligns closely with the racial demographics of the school,

whereas the at-risk student group shows several key differences. In all groups except

Hispanic and Native Hawaiian/Pacific Islander, there is a greater percentage of students in underachieving than at-risk categories. Fewer students in the African American, Asian, Multiracial, and White categories were at the higher level of academic risk at the end of the freshman year. Hispanic students are represented two times more in the at-risk group (61.1%) than in the underachieving group (30.4%) and show a significantly increased level of risk.

Table 12

Demographic composition of underachieving and at-risk groups by race

	School	Underachieving		At-Risk	
	%	*n*	*%*	*n*	*%*
African American	2	3	5.3	1	1.8
Asian	6	1	<1	0	0
Hispanic	29	17	30.4	33	61.1
Multi-Racial	7	6	10.7	1	1.8
Nat. Amer/Pac. Islnd	1	0	0	3	5.5
White	55	31	55.4	16	29.6
Total	100	56	100	54	100

Gender. There is also a difference in the distribution by gender within both groups. Males are overrepresented in both groups of students facing a lack of academic success. Table 13 shows males represent two-thirds of the underachieving group and three-quarters of the at-risk group.

Table 13

Gender distribution in underachieving and at-risk groups compared to full school graduation cohort

	School $N = 432$		Underachieving $n = 56$		At-Risk $n = 54$	
	n	*%*	*n*	*%*	*n*	*%*
Female	207	47.9	22	32.7	14	25.9
Male	235	42.1	34	67.3	40	74.1

Race and gender. Further analysis of the 74 males who were underachieving and at-risk shows the combination of race and gender in these groups. In the underachieving group, 34 Hispanic males did not achieve full credits during the ninth grade as compared to 31 Whites. Hispanic males represent 46% of the combined underachieving and at-risk groups. Within the group representing the greatest academic challenge, at-risk, Hispanic males are 42.8% of this group, compared to 20.4% for White males. In contrast, for females the same difference does not exist. In the underachieving and at-risk categories, there are 16 White and 16 Hispanic female students.

English Language Learners and Special Education. Students supported by English Language Learner (ELL) and Special Education services take support courses each semester. During the ninth grade a student who is identified for either program enrolled in at least one course designed to support academics. These courses may not

be as demanding academically and therefore often do not pose a challenge in passing.

Also, these courses often take up schedule slots that other students use for elective

offerings. Table 14 shows the distribution of students from each program. Thus,

being at-risk at the end of the ninth grade for students in ELL or Special Education

means students failed a number of courses. Special Education students are

overrepresented in the at-risk category and ELL students are overrepresented in both

underachieving and at-risk categories. (see Table 14).

Table 14

Support program for students in underachieving and at-risk groups in Class of 2017

	School	Grade 12	Underachieving $n = 56$		At-Risk $n = 54$	
	%	*%*	*n*	*%*	*n*	*%*
ELL	32.0	9.5	12	21.4	15	27.8
SpEd	15.0	15.6	3	5.4	16	29.6

Note. Rates for all grades taken from state report card data, other rates from school

databases

The main focus of this research is the experience of students who were in serious

risk of dropping out at the end of their first year in high school who eventually

graduated. Risk is determined by the number of credits earned, or number of courses

failed by the end of the freshman year.

Credit achievement and course failures during the ninth grade. The transcript reviews and statistical analysis revealed some patterns of course failure in the ninth-grade year. The average credits earned, during the ninth grade, by students in the entire class was 6.47 and the mode was seven. Of the students who were at risk at the end of the ninth grade the average total number of courses failed was 4.92 semester sections (see Table 15). Students, in the at-risk group, who eventually graduated, failed on average 4.9 courses as compared to 5.88 for non-grads. Analysis of the courses failed demonstrated that particular courses proved more challenging for students in the ninth grade. Students in the at-risk cohort failed elective courses (art, world language, technology) at a rate higher than core academic classes. Core classes were identified from the specific graduation requirements and include math, English Language Arts, social studies, and science. Elective courses represent 23.5% of the failing grades received during the ninth grade for students in the group. Some core courses appear to be more challenging to pass than others. The core courses most failed by the students in the at-risk cohort were science (22.3%) and English (21.9%). Students at West High School are required to complete three years of math, science, and social studies and four years of English Language Arts. Failing one of these courses requires credit recovery at some point in the subsequent three years. The three-year requirement leaves some room for repeating a course or completing an additional course, to make up for lost credit in math, science, or social studies. Students can find it more challenging to make up for lost credit in English Language Arts since they take an English course every year. For English 27.7% of non-graduates failed this course as compared to 20.1% for graduates. The per student rate

shows the individual impact of these failures as there were 1.33 per capita failures in

English for non-graduates as compared to .85 for graduates. Course failure rates

differed between graduates and non-graduates. Overall, as Table 15 shows, non-

graduates, as to be expected, accumulated far more failing grades, per student, than

graduates.

Table 15

PC course failures for students in the at-risk cohort by subject area for graduates and

non-graduates

	All At-Risk $n = 51$			Graduates $n = 27$			Non-graduates $n = 24$		
	n	*PC*	*%*	*n*	*PC*	*%*	*n*	*PC*	*%*
English	55	1.08	21.9	23	.85	20.1	32	1.33	22.7
Math	44	.86	17.5	21	.78	19.1	23	.96	16.3
Science	56	1.10	22.3	28	1.0	25.5	27	1.13	19.1
Soc. Studies	37	.73	14.7	16	.59	14.5	21	.88	14.9
Electives	59	1.16	23.5	22	.81	20.0	37	1.54	26.2
All	251	4.92	100	110	4.9	100	141	5.88	100

Further analysis shows the impact on individual students within the at-risk

group. Students failed courses at different rates (see Table 16). Most students in the

at-risk category who graduated failed only one or two classes during the freshman

year. In contrast, 69.6% of the non-graduates failed three or four core classes. The

failure of core courses means that students retake the courses at some point in their

high school career. Failures in the freshman year put additional burdens on the

remaining years for these students. It appears that the larger the number, the greater

the additional course burden. Even so, some students who eventually graduated began

their first year of high school by failing at least one class.

Table 16

Number of core courses failed within the at-risk cohort for graduates and non-

graduates

Failures	Graduates	Non-Graduates
n	*%*	*%*
0	3.8*	0
1	15.4	0
2	50.0	30.4
3	23.1	26.1
4	7.7	43.5

Note. *One student who did not achieve 6 credits due to shortened schedule

Trends in course failures by subject. Some subjects appeared to prove more

challenging than others for students in the at-risk cohort. Table 17 shows the

percentage of students within graduate and non-graduate groups who failed each

subject at some time during the freshman year. Although the number of graduates and

non-graduates is roughly the same, there are some clear areas of differences.   Non-

graduates accounted for 58.2% of the failures in English, 56.8% in Social Studies, and

62.7% in elective courses. Of the total non-graduates in the cohort, six students

received English Language Learner (ELL) services, and four of the non-graduates did.

The largest difference in failure numbers was found in the area of English where

58.2% of non-graduates failed as compared to 21.9% of graduates. Science proved

challenging to both graduates and non-graduates with 50% of both groups receiving

failing grades. Deeper review of the transcripts revealed some common trajectories

that complete the high school stories for members of the at-risk groups.

Table 17

Distribution of course failures by subject across graduates and non-graduate groups

of the at-risk cohort by percentage of students failing

	All	Graduates		Non-graduates	
	n	Courses failed	*% of students*	Courses failed	*% of students*
English	55	23	41.8	32	58.2
Mathematics	44	21	47.7	23	52.3
Science	56	28	50.0	27	50.0
Soc. Studies	37	16	43.2	21	56.8
Electives	59	22	37.3	37	62.7
Total	251	110	43.8	141	56.2

Note. Student failures include multiple failures by students over two semesters

Common Trajectories

The review of the transcripts revealed three common trajectories of credit

accumulation. Review of the trajectories shows some key differences across the three

trajectories. This analysis focused primarily on the students within the at-risk cohort who graduated. For each path, an overall description of the student trajectory is followed by a review of the data. The numbers of students who followed each of these paths is small, but the contrast between the graduates and non-graduates provides some valuable information about the success rate in each one. Cross tabulations of multiple data pairings were run to provide information about possible relationships between demographic characteristics and academic achievement.

One year of challenge followed by positive years. Recovering after a challenging first year of high school is difficult but very possible. Students on this path made regular progress each subsequent year. Regular progress meant that students earned at least six credits each year after their challenging first year. Within the at-risk group, students who followed this trajectory graduated. A total of 16 students followed the path to graduation as depicted in Figure 3
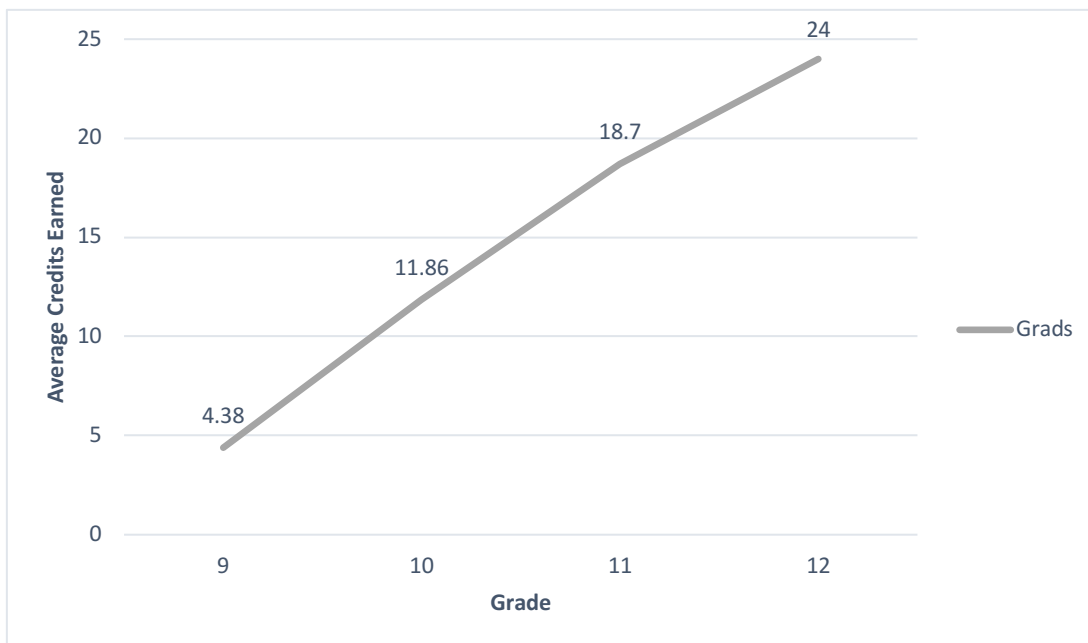
Figure 3. Graduation trajectory: One year off and three positive progress subsequent years. Positive progress is defined as earning at least six credits per year. In the Class of 2017 all 16 students who followed the path graduated.

Within this group, five students needed an additional year to graduate after the initial academic challenge, and one student graduated after a total of six years at West High School. The racial distribution was fairly evenly distributed between White and Hispanic students, and there were no African American or Native Hawaiian students in the graduation cohort. Of the students, who followed this path, 12 were male. Of those male students, seven were White and five Hispanic. Two of the female students were Hispanic and two were White. In order to graduate after a challenging first year, two of the six attended summer school or did online work to make up the credit.

One year off, followed by three or more years of moderate challenge and credit recovery. The second most common successful trajectory within the at-risk

group was three or more years of moderate challenge that followed the initial

freshman year challenge. Moderate challenge was defined as earning at least five

credits each of the years after ninth grade. Figure 4 shows this trajectory and the two

paths followed by students who graduated and those who did not.
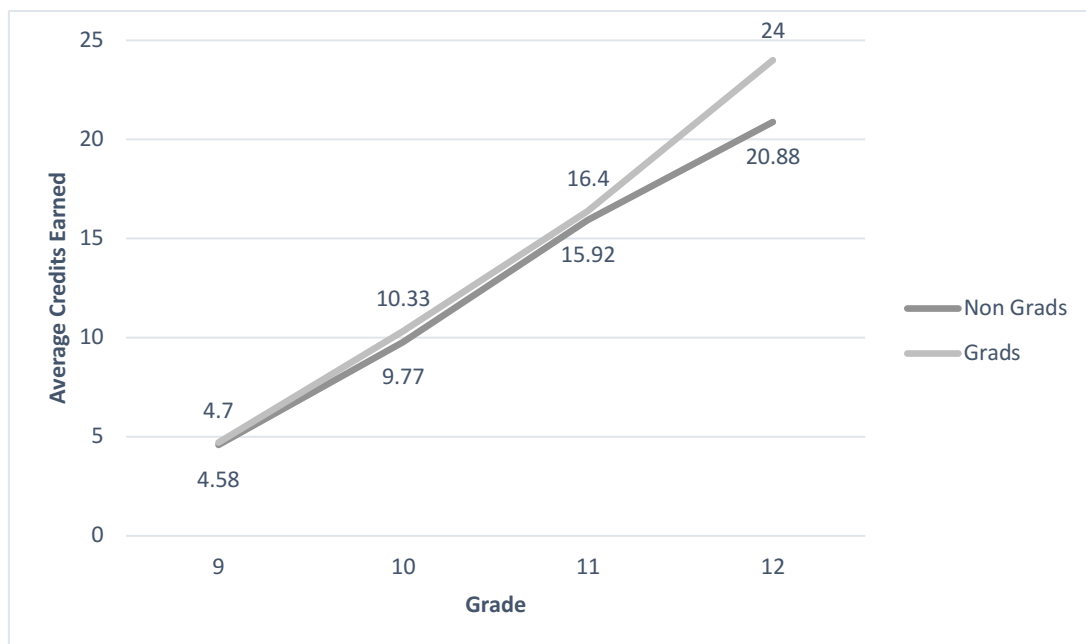
Figure 4. Graduation trajectory: one year off and three subsequent years of moderate

challenge. Moderate challenge is defined as earning between five and six credits per

year. Of the students who followed this trajectory, 5 graduated and 6 were non-grads.

Of the eleven students who followed this trajectory, five graduated eventually.

The racial distribution of the students who followed this path did not represent the

demographics of the school. Within this group, nine of the students were Hispanic,

and two White. All four of the students (three males, one female) who graduated were

Hispanic. Five of the six students who did not graduate, after following this path,

were Hispanic males.

Deficiencies in credits require remediation efforts to recoup lost credit. Four of the five graduates who followed this path needed an additional year to graduate. At West High School, students may take summer school to recover lost credits, take courses online, or repeat an entire academic year. Most of the students who needed credit recovery used summer school to complete academic coursework. Ten of the twelve students, in this pathway, (graduates and non-graduates) took summer school courses. Half of the students took one course, and half took two summer school courses. The gap of credits earned by graduates and non-graduates starts small with a .12 difference in ninth grade and grows to a .46 difference in 10th, a .48 gap in 11th, and a final gap of 3.12 at graduation.

Four challenging years. Four years of continued academic challenge is the most difficult trajectory through high school, as demonstrated by the transcripts and graduation results for this path. This pattern represents the most common course taking trajectory within the initially at-risk cohort, with 23 out of the 50 at-risk students following this path. Students who followed this pattern made minimal credit gains each year. Unlike the other trajectories, after an initial year of academic challenge, these students did not achieve a single year of adequate credit gain. A total of 23 students followed this pattern with only three students eventually graduating. All three graduates were Hispanic students (two females, one male). Of the students who did not graduate after following this path, 13 were Hispanic, four White, and three Native Hawaiian/Pacific Islander. The students in this trajectory group were overwhelmingly male. Twenty-one of the students were male and Hispanic male students made up the largest disaggregated group in this trajectory. Of

the 11 Hispanic male students, one graduated. Two of the three students who

graduated repeated all or portions of one or more grades, and all three relied on

summer school credits as, well.
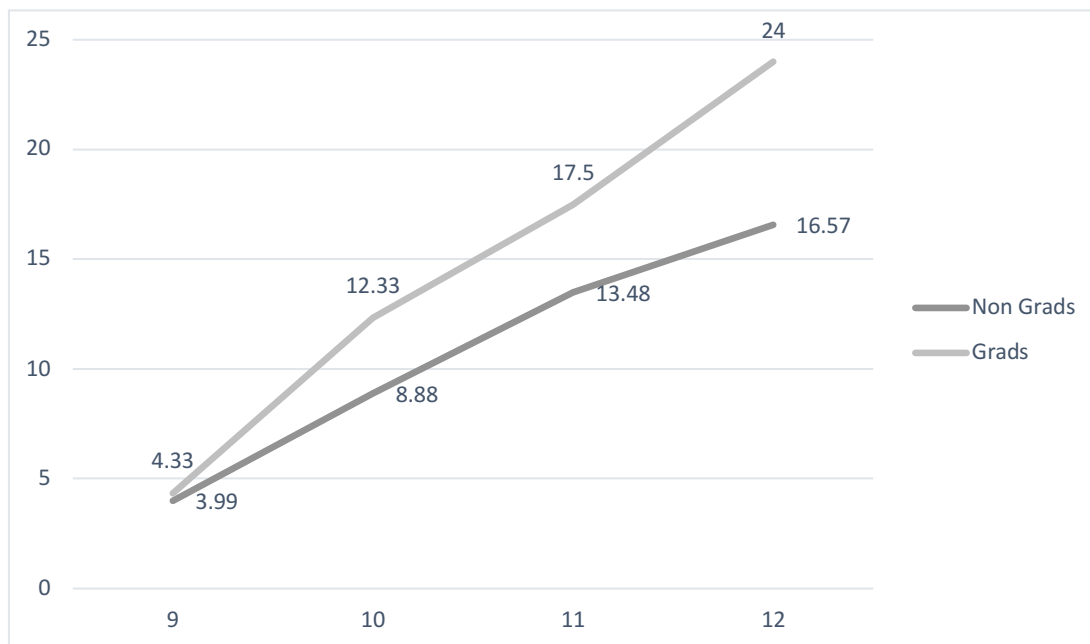
Figure 5. Graduation Trajectory: Four extremely challenging years. Extreme

challenge is defined as earning four or less credits per year . Of the students who

followed this trajectory, 3 graduated and 20 were non-grads.

Repeating grades. Eleven of the students who were initially off track at the

end of the ninth grade, repeated at least one grade during their time at West High

School. In total, four repeated just the ninth grade, five repeated the 11th, one

repeated 12th grade, and one repeated the ninth and eleventh grades. Repeating grades

proved a successful option for less than half, 45% of the students. Of the students who

repeated at least one academic year, five eventually graduated, and six did not.

The trajectories show that although there are multiple paths students may follow through high school, only the ones that included regular and increasing credit accumulation resulted in successful graduation.

Research question: For surveyed students, what do they believe were the factors within the school culture that supported their development of persistence and resilience and supported their academic success?

Survey Results

Participants who completed the survey for this study were members of the senior class who were still enrolled during the second semester. The survey was conducted during the last two weeks of the 2016-2017 school year in senior English Language Arts (ELA) classes. By the end the school year there were 370 students in the class who were projected to graduate on time. The survey was completed in 13 ELA classes. All students are required, by the State Department of Education, to complete four years of ELA (State Department of Education, 2017). As a result, all seniors are enrolled in ELA classes. The survey was completed by a total of 194 seniors which is 52% of the class.

The survey sample included 99 males, 90 females, and two respondents who chose not to indicate a gender. Table18 shows that within the students who completed the survey, 1.1 took only three years to complete high school 98% took four years, and 1.1% took longer than four years to complete high school. Most students attended only West High School for all four of their high school years.

Table 18

Distribution of survey participants by the number of years attended prior to graduating, N = 190

Years	n	%
3	2	1.1
4	186	97.9
5	2	1.1

Table 19 shows most students 84.8% who completed the survey attended only West High School, while 2.6% attended only the senior year. The survey was completed mostly by students whose only high school experience was West High School.

Table 19

Distribution of survey participants by years attending West High School, N=191

Number of years	n	%
1	5	2.6
2	14	7.3
3	10	5.4
4+	162	84.8

The survey respondents reported a wide range of cumulative grade point averages (GPA). These were self-reported GPAs. At the time of completing the survey most of the respondents, 65.9% reported a grade point equal to or higher than 3.1, or a B

average and 28.8% reported a GPA between 2.1-3.0, or a C average. A total of nearly

95% of the students who completed the survey reported a GPA of a C or higher.

(Table 20).

Table 20

Distribution of Grade Point Average (GPA) for Survey Respondents, N = 193

GPA	*n*	%
< 1.49	2	1.1
1.5-2.0	10	5.2
2.1-2.5	27	14.1
2.6-3.0	28	14.7
3.1-3.5	51	26.7
3.6 and above	75	39.3

The results of the survey provide quantitative evidence of student perceptions

about the school culture and structures that support students through their high school

careers. The Lohmeier survey organized the questions around three key factors of

school inclusivity, relatedness, connectedness, and belonging. Analysis of the survey

responses, using these three factors, creates a portrait of the school culture and

provides some potential insights into the ways that resilience and success were

encouraged. In addition, research shows that the attitudes students have and what they

do are important to forming bounds with their school (Lohmeier & Lee, 2011). The

survey results (see Table 21) suggest a strong presence of all three elements at West

High School. The rates for each positive response (*strongly agree and agree*) show

that each element's presence is perceived strongly by students who completed the

survey. Just over 40% of the responses for relatedness and connectedness strongly

agreed that these elements were present. None of the elements received more than

10% strongly disagree responses.

Table 21

Percent agreement of presence of cultural elements as reported by survey respondents

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Relatedness	40.91	39.71	10.90	6.03	2.52
Connectedness	40.07	31.13	13.12	8.34	6.39
Belonging	34.23	28.96	16.49	15.76	4.55

The strength of the positive perception of the cultural elements is clear in the

combined positive survey responses as shown in Table 22.   All three elements

received strong affirmative responses (strongly agree and agree) and very low negative

(strongly disagree and disagree). The percentage of positive responses range from a

low of 63.2% for belonging, to a high of 80.6% for relatedness. The mean for all three

factors was 71.7%. Survey responses suggest that over 70% of students surveyed can

identify the presence of all three elements in their school's culture. More detailed

analysis of each element provided greater detail of what students think about the

element and the actions they believe they take that align with the element.

Table 22

Combined percentage affirmative and negative responses for each cultural element

	Present	Neutral	Not Present
Relatedness	80.6	10.9	9.3
Connectedness	74.2	13.1	14.7
Belonging	63.2	16.5	20.3

Note. Present represents combined percentages of strongly agree and agree responses, not present represents combined strongly disagree and disagree responses

Belonging. The element of belonging, as defined by Lohmeir is the "(p)erceived support in general from other students, school adults, and the overall concepts of school and education; includes the student's sense of membership and acceptance in the student body as a whole" (Lohmeir & Lww, 2011, p. 87). Survey results suggest that belonging is the element students appear to view least positively. It has the lowest mean positive rate (63.2%) and the highest unfavorable response (20.3%). Responses to specific questions within the element provide some further detail. Table 23 includes the results for questions on the survey that received the highest positive responses. Fourteen of the belonging questions ask for the presence of negative elements of belonging. Some examples include, "my classmates ignore me," "I feel lonely at school," or "I only go to school because I have to." The results for these questions were reversed for scoring purposes so that the strongly agree became strongly disagree in order to align with questions that asked for the presence

of the element. Responses for nine of the questions were above the mean positive

responses for belonging of 63.2%. Six of these questions refer to the role of adults in

the school, and three relate to student actions. The responses to these six suggest that

students appear to see adults at West High School as supportive and friendly to

students, as a whole. The two most favorably viewed questions asked whether

teachers were "friendly to students" or "care about their students." Those two

questions received high ratings from students and suggest that students see teachers as

supportive of students.   Six of the nine questions that received the most favorable

response pertain to the student, whether they are lonely, argue with teachers, or would

prefer to go to another school. Although students view adults as caring, 20.1% report

that students bully each other, and 22.2% believe that teachers only notice them when

"they do something wrong." The difference in these responses may suggest that

students may perceive a culture that supports belonging; yet they may not feel fully

included by peers.

Several of the questions pertaining to belonging relate to disengagement from

other students. Lohmeier described student engagement as an aspect of belonging and

identified involvement in school as an indicator of engagement (Lohmeier & Lee,

2011). A lack of engagement in school was reflected in the response by 60% who

reported being bored at school, and 42.6% admitted goofing off or daydreaming. Over

one-third (33.7%) reported that they "only go to school because they have to," and

27.9% believed that what they study in school is "useless." The responses in this

category seem to suggest that students know there is support from adults, an important

aspect of belonging.

Table 23

Rank order of perceived presence of belonging by percentage of combined positive

and negative responses

	Positive	Neutral	Negative
Adults at my school are friendly to students.	87.9	8.95	3.16
Teachers at my school care about their students.	86.4	5.24	8.37
I would rather go to a different school.*	77.9	13.16	8.9
I argue with my teachers.*	75	17.02	7.44
I feel lonely at school.*	73.5	13.76	12.7
My classmates ignore me.*	72.5	16.93	9.59
I wish my teachers would leave me alone.*	71.96	17.46	10.59
I think adults at my school care more about punishing students than helping them.*	67.4	23.16	9.5
I believe teachers at my school are unfair to students.*	60.4	19.58	20.1
People I care about say bad things about my school.*	58.9	19.47	21.6
I think my teachers only notice me when I do something wrong.*	58.7	19.05	22.2
Students at my school bully each other.*	57.5	21.58	21.1
I think the things I learn at school are useless.*	54.7	17.37	27.9
I only go to school because I have to.*	50	16.32	33.7
I daydream or goof off in class.*	38.4	18.95	42.6
I feel bored in class.*	20.1	15.87	60

Note. Affirmative represents combined percentages of strongly agree and agree

responses, negative represents combined percentages of strongly disagree and disagree

note. Questions identified with * were reverse analyzed

Cross tab analysis of questions related to belonging with the factors of gender, grade point average, and years of attendance at West High School showed no overall statistically significant differences. There were a few questions that showed a difference by gender. Some of the questions in the belonging section ask for student perceptions of the relevance of school. More males, 36, report that "the things I learn at school are useless," as compared to 15 females. Some differences were noted related to the number of years at West High School by comparing students who attended all four years with those who attended one, two, or three years. There were 29 students who attended less than four years, and 162 who attended all four years. Nearly twice as many students (20.6%) who did not attend all four years reported feely lonely at school as compared to 11.1% for those who attended all four. Additionally, 17% of the students who attended fewer years agreed or strongly agreed that they would rather go to a different school as compared to 7.4% of those who attended the high school four years.

Connectedness. Lohmeier defines the element of connectedness as "(d)emonstrating effort in and enjoyment of schoolwork and school activities or demonstrating active involvement in and valuing of school adult or peer relationships; student explicitly values specific relationships or activities and deliberately seeks out support" (Lohmeir & Lee, 2011, p. 87). Table 24 includes the questions that received positive responses above the mean (74.2%) for connectedness. Several questions ask about the relationships students form in school. Nearly 90% of the respondents responded that school is important with less than 5% responding negatively. Despite the level of perceived importance of school, 73.5% of students reported that they skip

class. Students report that their school as a safe place (78.2%) and that they feel

included (78.1%). The culture appears to be one were students are helpful to each

other (88.9%) and where students have a peer to ask for help (77.0%).

Table 24

Highest affirmative response rates for the presence of connectedness by survey

respondents in rank order

	Affirmative	Neutral	Negative
I think school is important.	89.9	5.29	4.76
I help my friends at school with their problems.	88.9	8.47	2.65
I fight with my classmates.*	85.6	10.16	4.27
I think my school is a safe place to be.	78.2	15.43	6.38
I talk back to my teachers. *	78.1	11.23	16.54
I feel like I fit in with the other students at my school.	78.0	9.95	12.04
I feel like this school is the right place for me.	77.54	11.23	11.23
When I have a problem, I ask my friends at school for help.	77.0	12.3	10.69

Note. *These questions were reverse scored to align with other questions

Questions about involvement in activities received some of the lowest response

rates and suggest that this aspect of the connectedness is present to a lesser degree

among students. All of the questions about involvement in activities, attending

sporting events, or supporting the school, fell below the mean of 74.2% for affirmative

responses (see Table 25).

Table 25

Lowest affirmative response rates for the presence of connectedness by survey

respondents in rank order

	Affirmative	Neutral	Negative
I encourage other students to get involved in school activities	69.3	13.23	17.5
I do things to support my school	69.3	20.6	10.0
I am very involved in activities in my school, like clubs or teams	60.5	9.5	30.0

Cross tab analysis of questions related to connectedness with the factors of

gender, grade point average, and years of attendance at West High School showed no

overall statistically significant differences. There were no major differences identified

in the responses based on gender. One exception was that almost twice as many males

(13%) report that they talk back to teachers as females 6.7%). Grade point average

also showed few differences with a few exceptions. Although roughly the same

number of students with GPAs above and below 3.0 reported that they help friends at

school with problems, 67.7% of students with lower GPAs reported that they ask a

friend for help as compared to 82.5% of students with higher GPAs. Additionally,

65% of students with higher GPAs care about what their classmates think about them, while 49% of students with lower GPAs do. Time in the high school does show some differences in student involvement. Only one-third of students who attended the school for one to three years report being involved in school activities as compared to 62.9% of four-year students. Only 34.5% of short time attenders report doing things to support their school, compared to 78.4% of four-year attenders. Although, as stated earlier, none of these were statistically significant.

Relatedness. Survey response rates seem to demonstrate a high level of perceived presence of belonging and connectedness in the school. The combination of the positive responses show, that for West High School, relatedness is the cultural element that is perceived by West High School students to be the strongest at 80.6% combined positive responses. School relatedness is defined in Lohmeier's research as "(p)erceived support from specific sources such as the student's teachers, school friends, classmates, classes, or membership at the student's current school" (Lohmeir, 2011, p. 87). Table 26 shows the results for the survey questions pertaining to the relatedness factor. Support from teachers is an important aspect of relatedness. Questions about this aspect received some of the highest responses in the entire survey. Students perceive that adults in the school are interested in how they are doing (86.9%), ask about how they are doing (71.2%), and care about students (83.8%). Beyond this positive presence students perceive in teachers, they also see teachers as sources of support. According to the survey results, 82% of students responded that when they have a problem, there is at least one adult at school they can trust, and 84.7% report that teachers give them extra help when needed. Overall,

students appear to view teachers as a source of support for students. Also, students report very high levels of peer affinity and support. Only 9.5% of students report that they cannot find a friend to sit with at lunch, and 83.7% reported that their classmates like them.

Deeper analysis of relatedness offers some insights into the finer detail of student views on this element and its presence at West High School. By comparing the combined response rates for each individual question, the areas of highest presence in the culture came through. Table 26 also details the levels of highest relatedness and lowest within the full collection of questions connected to relatedness. Although there are some obvious pairings of a high level of affirmative responses with low levels, there are some questions where this does not occur. Although a high percentage of students believe adults are interested and caring, 7.9% do not believe teachers are interested in how they are doing, and 10% do not have at least one adult to turn to with a problem. This disconnection is one of the factors of relatedness that Lohmeir's survey is designed to assess in a school culture. Survey results suggest that nearly one out of ten students do not perceive this support to be present.

Table 26

Rank order of perceived presence of relatedness by survey respondents

	Positive	Neutral	Negative
Adults at my school are interested in how students are doing.	86.91	5.24	7.86
I get along with the other students at my school.	86.84	11.05	2.11
I try to do my best at school.	86.25	8.99	4.76
I can find a friend to sit with at lunch.	85.26	5.26	9.47
My teachers give me extra help when I need it.	84.73	8.95	6.32
My teachers care about me.	83.77	7.85	8.37
I think my classmates like me.	83.69	10.53	5.79
When I have a problem, there is at least one adult at school I can trust.	82.01	7.94	10.05
I feel comfortable around the other students at my school.	80.83	12.63	6.84
I wish my classmates would leave me alone.*	80.21	13.9	5.88
I like to make my teachers happy.	78.95	16.84	4.21
I like spending time with my classmates.	78.19	12.23	9.57
I try to make my teachers happy.	77.13	17.55	5.32
I care about my teachers' opinion of me.	74.08	9.52	16.4
I feel comfortable asking most of my classmates for help with a problem.	72.48	14.29	13.22
Adults at my school ask students how they are doing.	71.73	10.47	17.8

Note. *These questions were reverse scored to align with other questions

Gender. There were minimal and not statistically significant differences between males and females in the perceptions reported on relatedness. There were several questions that had either a wider spread of responses or a higher rate of strongly agreed reported. Table 27 shows the combined positive responses (agree and strongly agree) and combined negative responses (disagree and strongly disagree) for the highest value relatedness questions. The table also shows the response rate difference for each question and indicates the difference in the response by gender. Females had more positive responses to six of the questions. The difference in the gap between the female and male response on some questions was not consistent. The gap between the responses by gender was larger for questions that females responded to more positively. Questions on which females had a more positive response had an average gap of 5.87% greater than males. In contrast, the average gap for male favored responses was 2.93%. This may indicate a stronger perception of these elements by females.

The elements of the relatedness culture that females appear to see more evident in the school include three questions that relate to connections to adults at school. These questions pertain to perceptions of whether adults show concern for student well-being, offer extra help, or whether there is an adult who students trust when facing a problem. One question that showed the largest gap between positive female responses by females and those of males "I get along with the other students at my school." This question had a 15%-point difference in response rates, with females responding more positively. In contrast though, the question, "I feel comfortable around the other students at my school" showed a much stronger male response with

83.8% of males responding affirmatively as compared to 76.7% females. Another element of comparison is about personal motivation in school. Female showed a combined positive 92.2% response to the question "I try my best school," and in contrast, 78.7% of males responded positively.

Table 27

Combined percentages agreed responses for highest value questions on relatedness by gender

	N = 189	
	Male n = 99	Female n = 90
Adults at my school are interested in how students are doing.	69	68
I get along with the other students at my school.	87	77
I try to do my best at school.	78	83
I can find a friend to sit with at lunch.	81	79
My teachers give me extra help when I need it.	83	69
My teachers care about me.	83	75
I think my classmates like me.	85	74
When I have a problem, there is at least one adult at school I can trust.	80	75
I feel comfortable around the other students at my school.	83	69
I wish my classmates would leave me alone. *	82	68

Note. *These questions were reverse scored to align with other questions

Grade Point Average. Student success in an academic setting may be a factor that influences their perception of the level of support present or accessed. Every course at West High School grants an academic mark at the end to each student. The grade point average (GPA) is the only standard indicator of academic success available. Over 65% of the seniors at West High School reported a GPA over 3.0 or higher when completing the survey and 35% below 3.0, which corresponds to a "B" mean grade average. By comparing the responses of students who report a GPAs above are compared with those of students with reported GPAs below 3.0 show some differences. These findings are notable in relation to some of the aspects of relatedness, as defined by Lohmeir and Lee. This element of school culture includes "support from specific sources such as the student's teachers, school friends, classmates, classes, or membership at the student's current school" Lohmeir & Lee, 2011, p. 87). The percentage (90.7%) of students with higher GPAs that report adults are interested in how students are doing compared is larger than the percentage (80%) for those with a GPA below 3.0. This is a key factor in relatedness along with the perceived level of care and the availability of trusting adults. On both of these questions student responses there was a noted difference in the rate of positive response. Table 28 shows that 89.1% of students with higher GPAs report that teachers care about them compared to 72.0% of those with lower GPAs. Also, 73.9% of students with lower GPAs believe there is at least one adult at school they can trust as compared to 84.6% for students with higher GPAs. Despite these differences 80.1% of students with lower GPAs report that teaches give them extra help when needed.

Students with lower academic marks appear to feel less support from or connection to their fellow students. Fewer students with lower GPAs feel comfortable with their peers or think their classmates like them. A comparison of the question, "I wish my classmates would leave me alone" shows a response rate by students with lower GPAs double that of those with stronger academic marks.

One large difference is noted in the responses on the question "I try to do my best at school." Students with higher academic marks report doing their best (91.2%) far more than students with lower GPAs (73.8%). Also, 90% of students with the lowest GPA report trying their best as compared to 86.2% of students with a 3.1 to 3.5 GPA.

Table 28

Combined percentages agreed responses for highest value questions on relatedness by

GPA

	1.5-2.0	2.1-2.5	2.6-3.0	3.1-3.5	3.6+
	n = 10	*n* = 27	*n* = 28	*n* = 51	*n* = 75
Adults at my school are interested in how students are doing.	80	77.8	82.1	92.2	89.3
I get along with the other students at my school.	70	81.4	82.1	88.2	90.7
I try to do my best at school.	90	81.4	60.7	86.2	94.7
I can find a friend to sit with at lunch.	80	88.9	85.7	80.4	86.7
My teachers give me extra help when I need it.	80	88.9	71.4	82.3	89.3
My teachers care about me.	70	74.7	71.4	86.2	92
I think my classmates like me.	70	77.8	71.4	86.2	89.3
When I have a problem, there is at least one adult at school I can trust.	80	66.7	75.0	88.2	81.3
I feel comfortable around the other students at my school.	80	74.7	75.0	84.3	81.3
I wish my classmates would leave me alone. *	80	55.6	75.0	78.4	88

Note. *These questions were reverse scored to align with other questions

Years at West HS. Most of the students (83.5%) who completed the survey attended only West HS High School Even though the number of students who attended the school for less than four years is small, there are some results that show some differences. For many of the questions that pertain to adult interactions and support for students, there is little difference noted in student responses based on how long they attended West High School. Both groups of students report that adults are interested in how students are doing at high rates and that teachers care about them. Table 29 shows that 79.3% of the students who attended other high schools, at some point, report that they have at least one adult they can trust, as compared to 81.4% of students who only attended West High School. More of the newer students (93.1%) believe that teachers give extra help when needed then four-year students (82.7%.

Newer students appear to respond differently than veteran students in areas of peer interactions. The largest gap is seen in the response rates for the question, "I get along with my classmates," with 75.9% of the newer students responding positively as compared to 88.3% of students who attended the school for four years. Other responses show different positive response rates. More veteran students can find someone to sit with at lunch than newer students. Students with four years or more time at West High School appear more comfortable around their classmates and believe that their classmates like them. In both groups, more than 25% respond negatively to the statement "I wish my classmates would leave me alone."

Table 29

Combined percentages agreed responses for highest value questions on relatedness by

years at West High School

	1-3 years	4 or more
	15.1	83.5
Adults at my school are interested in how students are doing.	89.7	86.4
I get along with the other students at my school.	75.9	88.3
I try to do my best at school.	79.3	86.4
I can find a friend to sit with at lunch.	75.9	86.4
My teachers give me extra help when I need it.	93.1	72.7
My teachers care about me.	82.7	84
I think my classmates like me.	75.9	84.6
When I have a problem, there is at least one adult at school I can trust.	79.3	81.4
I feel comfortable around the other students at my school.	72.3	81.4
I wish my classmates would leave me alone.*	75.9	79

Note. *This question was reverse scored to align with other questions

Research question: For interviewed students who were at risk of dropping out at the

end of ninth grade, what do they believe were the factors within the school culture or

structures that supported their persistence and success?

Interview Results

Review of the interview transcripts yielded some key findings related to the

each of the three cultural elements. The a priori codes used for the first review were

the three cultural elements of belongingness, relatedness, and connectedness. The first level of coding revealed some observations by students that related to one of more of the three themes. A second round of coding identified key emergent themes that were particular to the lived experiences of students.

Belonging. The element of belonging, in a school culture, refers to the supports students perceive are available from other students, adults at school, and the overall understanding of education. The students' sense of acceptance or inclusion in the entire student body is also an aspect of belonging. During the interviews, students commented on their lived experiences as a member of West High School. Each student commented on the composition of the student body and referred to how there appeared to be an atmosphere of inclusion. "It felt like being part of a family, like being somewhere where you belong, and you found your core." The community includes people from "all kinds of walk of life." The importance of peer friendship was important to all four students. "It always felt that my greatest success was my relationships with other people. I never valued academics as much as the other aspects of high school, people come first." Students pointed out that their desire to make friends was possible at West High School. One of the students returned to West High School after being away for eighth grade. She left middle school to move to another state and then returned to West High School. The student thought "none of my old friends are going to remember me because I'm not very memorable." When the guidance counselor introduced her to her math class, "three girls I used to know we came up to me like oh my god how are you? We thought you were gone forever. I was like they remember me." Even when their time in high school was difficult, all

four students commented on the important role peers made in creating a sense of membership in the school. "What are you going to have more fun doing, sitting at home by yourself or hanging out with all your best friends in the world?" In addition, peers offered support for students. Students offered that peers were "the ones that helped me a lot. She always knew when I was own and would to try make me feel better about myself."

Supports from teachers, counselors, and other staff also helped shape students' sense of belonging (Lohmeier & Lee, 2011). "People here were a big help" and "there are a lot of teachers that will be here to help you" were some of the comments that students offered. More specifically each student reported on the efforts of particular teachers. One teacher told the student, "you've got this, and I will be here whenever you need help. And she helped me pass."

Connectedness. In school cultures that are connected, students demonstrate an effort in schoolwork, they are involved in activities, and the value peer and adult relationships. Also, students actively seek out support when needed. These supports can include counselors, teachers, or even peers. All four student interviews included specific reference to the role that such people played in their high school careers. "I tried my best to try my best on my own and when I realized that wasn't enough I went on to working with teachers, tutors, and family and that seemed to help somewhat." Teachers were there, "I can talk to (them) even if it's like really stupid. He wants to be there and listen."

The role of guidance counselors was present in every interview. One student, who was behind in credits during the junior year, recalled a conversation with a

counselor. The counselor "told me that students who come from middle school are only here for four years. And later on, I talked to (the counselor) about it and asked how can I make it? She told me that students like me (who are behind in credits) and other students who learn second and third languages have the chance to be here for an extra year. So that means that everyone can make it." The role of the counselor as a constant monitor of student progress came up for students. "My counselor actually helped me a lot because I would go and be like, hey I'm worried that I'm not going to graduate," and the counselor told the student "you're on track to graduate, you shouldn't worry."

In addition, students commented on the role that a teacher's expertise or the students' level of interest in the course. "I could tell the teachers who were teaching and knew what they were talking about and it showed." One student suggested that participation in a world language class with a native speaker "is the best way to learn…compared to learning…from an American." Student enjoyment in schoolwork is one of the aspects of Lohmeir's connectedness element, and students reported that they enjoyed the courses where teachers seemed to be experts in their field.

All students interviewed reported having moments when the connection to West High School was weaker. For one student, high school was, at first, a bit of a "culture shock." "I went from being a student who was like I can do this if I have enough time, I can do this, but I don't have all the time in the world. But "I became a master procrastinator, which is something I never thought I wanted, that I should be." Students discussed teachers with whom the student and teacher relationship was not strong. "My first (math) teacher, some reason, they just weren't able to get it into me

in some way." Another responded that "there are teachers who take their classes too seriously. I had a teacher who got on me for the look on.my face. It was clear that he really cared about (course name), it wasn't clear at the beginning, but it grew more clear." Two of the interviews included reference to the perceived presence of a gap between students needing help and being able to ask for help. "Sometimes we are shy to ask for help" was described by one student as a barrier to receiving help. Another commented "I'm not very good at asking for help."

Relatedness. A school culture that includes the element of relatedness is present where support for students comes from specific sources such as teachers, peers, classes, and being a part of the school. The supports are present, and actions by some to support students are deliberate, although students may not actively seek out the assistance. All four students spoke about at least one individual within West High School who made a difference in their high school career and supported their success. They had moments they recounted that were descriptive of those roles. These were subtle influences and ones that students did not actively seek out. "I always knew (my counselor) was there." "I only scheduled a few times to meet with (counselor) but whenever I needed to meet with my (counselor) and my parents (the counselor) was always there, I could tell (counselor) wanted to make sure I graduated."

The availability of teachers to offer personal and academic support also came through in the interviews. The special education case manager "was always the big pushing force saying you need to do this, and you need to do that." One student recalled a very challenging moment when a teacher showed compassion and care. "I locked myself in the bathroom, and she (teacher) came in. And she started crying, and

I was like why are you crying? And I felt that she was kind and we were both crying, and it was just like this is a disaster." A second language student explained the role that ELL teachers and other teachers played in supporting student success. "Everyone is here to help you to succeed. I don't think it is just for me, they are going to do is for everyone who is going to ask for help."

Students did accept some responsibility for challenges they faced during school. "You know you're the one holding yourself back from what you want to change that. Nobody else can do it for you. There will be people that will encourage you and there will be people that will knock you down and be like 'no you're just not worth it'. But you yourself have to tell yourself I am worth it." Students discussed the role their study habits and personal motivation played in their success. "I guess I didn't do much of the homework. And I just didn't care. But I didn't do homework, I'm like oh I got this. And I think I did have it. I didn't even study. So, like the review packets. you give us, cause I'm like I know this I got this. I played myself." Avoidance of challenge or failure also came through in some of the interviews. "I would wake up in the morning and see the F in (course name) and dread going. It was the last thing of the day. It wasn't a thing that I had to get past. Just wasn't good. I can't blame myself for not being good I didn't put in the work required. I get it. But. Yeah I just dreaded it." There were students who expressed an uncertainty about how to ask for help or an emotional barrier to asking for help. "I think sometimes we are shy to ask for help. That happened to me when I started. What will people think about me like when I ask for help every single day? But actually, we don't know that everyone is here to help you to succeed."

One aspect of relatedness in a school culture is the presence of support personnel and structures that are available to students whether they ask for the assistance of not. One question that offered some informative perspective on this trait of a school's culture was, "(I)f you could give advice to teachers and administrators about West High School, what advice would you give? The responses offered a chance for students to reflect on their experience from a holistic, less personal manner, and the answers provided personal insight. One student suggested that the amount of stress students feel is too much. "I feel like it's an issue especially with juniors is that they just take it all way too seriously. Oh, this is the end of world, and my classes are so hard, and there's nothing I can do about it. Being physically stressed about something never helped anyone. Unless the stress is a stepping stone to becoming better prepared." Another offered some simple advice directly to teachers and encouraged them to if you know they (students) are struggling just talk to them. like I know it's like teacher-student type of relationship, but you can give personal some time and be like hey are you ok? Is everything OK at home? Like your grades are not doing so well or you just seem not to be here most of the time just talk to them. Some of them might be like this none of your business. Others might just want you just might like a teacher or an administrator to hear and listen to what they have to say. You don't have to like respond back. Just having someone to listen is always a good." Another student suggested that supports should be more deliberately applied. "Try to encourage students to go to ask for help. No matter what. Because there is, there will be students who will be shy to ask for help or ashamed. But also, for a teacher when students come back asking how. To give them the time. To support them as much as

they need it. Because that's really important for them to be successful After that they're going to graduate from high school. That's going to prepare them better for college if they will go to college.

The coding of student comments indicated that there were elements of all three elements. Relatedness was the element most often identified as depicted in Table 30. Comments that were coded as positive were those that the interviewee reported as benefiting their academic progress, while those coded as negative were reported as hindering academic progress. Only 8 of the 62 comments were coded as negative. Of the coded comments, both positive and negative, 28 out of 62 (45.2%) aligned to relatedness.

Table 30

Number of Interview Comments by Cultural Element

	Positive comments	Negative	Total
Belonging	14	1	15
Relatedness	25	3	28
Connectedness	15	4	19
Total	54	8	62

Emergent themes. A second review of the transcripts identified key phrases. From these key phrases and quotes some common themes emerged about the lived experiences of the students. Four common themes were identified during emergent coding. These four themes appeared in all of the interviews in varying degrees.

All of the students mentioned a personal challenge that they faced and had to overcome. For one student it was a diagnosis of depression, "I struggled so much the first couple of years in high school. I had to go the doctor and they put me on medications. I had to increase the doses a lot because it just wasn't doing anything." One student referred to the "apathy meter" and that some days "I just want to sit and do nothing all day. I just don't wanna do this assignment and not really have any reason why I don't want to, I just don't feel like doing it." Several challenges presented potential obstacle for one student. As an ELL student the challenge of language was present constantly. In addition, the student worked outside of school to support himself. As an immigrant, he arrived in the United States by himself and lived with an older sibling. These represent the challenges students overcame to eventually graduate. Four emergent themes gave some detail to how students overcame these, and other challenges. These four themes appeared in all of the interviews in varying degrees and demonstrate examples of other factors that influence successful completion of a high school education. The four themes are a sense of individual determination, family expectations and support, community support or encouragement, and individual resilience.

Individual determination. The survey results showed that almost every student surveyed (99.9%) believed that school was important. Each of the interviewed students described their own personal drive to succeed. "For me I had to do it. It is one of the amazing things I have done for myself so far." For some this was present throughout their time in high school, while for others it waxed and waned. "I was worried I wouldn't graduate. And then I woke up the day before graduation and was

like oh my god, are you ready for tomorrow?" All of the students referenced the goal

of high school graduation as a force that helped move them forward.

  Family expectations and support. The encouragement from the families of

students to graduate was reflected in the student narratives. None of the four students

interviewed reported a responding to the hopes of their families in a negative manner.

All seemed to suggest that the insistence on graduation by family members was

encouraging. "I never wanted to let my family down." Some were pushed by the goal

of becoming one of the first in their family to graduate. "My grandpa and my dad,

neither of them graduated. I would have been the first to graduate high school." One

student's parent was not able to be fully present because of work obligations.

Nonetheless, this student commented that education and graduation were valued in her

family and these aspirations pushed her to succeed and to make her mother proud.

"My mom never went to those elementary, middle school like graduation ceremonies.

I wanted to graduate from high school, so she could actually attend that one and it

actually means something to me and her." Two of the students commented that they

felt comfortable turning to family members for advice and support.

  Community support or encouragement. Survey results suggest that West

High School's students feel comfortable supporting peers and asking peers for help.

Only 5% of students wish that classmates would leave them alone. Most students

(78%) reported that they "like spending time with classmates" and 77% "feel

comfortable asking a friend for help with a problem." One interviewed student

referred to the school as "a family" and another reported that the community was very

diverse. There are "all kinds of walks of life and there will be a lot of teachers that will be here to help you."

Individual resilience. The literature review described two factors essential to the development of resilience. The first is the presence of risk that may interrupt or disrupt normal development, and the second is the positive adaptation to the risk that takes place (Fergus & Zimmerman, 2005). Students who develop resiliency draw on the assets around them to overcome adversity, and in the process develop resiliency (Khanlou & Wray, 2014). Results of the survey suggest that students at West High School believe that there are resources to draw on for support. Students report that adults are interested in how students are doing (86% agree) and give additional help (84.7% agree) to students.

In interviews, students reported drawing on both the community and specific people within the school community. Students reported that these positive forces helped them overcome the challenge and develop resilience. One student remarked that what he learned about himself is that he will "never give up, no matter what. There are times that everyone is going to face in their life when you think you don't feel like there's no choice. I am someone who would never give up. Work harder to get through." Another student had to become independent to support herself and her sister. "My mother worked two jobs, so she was hardly ever home, so I had to be the mother to my little sister." Her mother told her "never depend on other people because you could do it yourself is you believe in yourself."

Interviewee trajectories. Each of the stories students told included some elements that were heard across all of the interviews and details that were particular

one student's individual trajectory through high school. These trajectory stories offer some qualitative understanding of the impact of school culture on one individual trajectory and resilience. For each student the impact of the school culture tipped the trajectory at different points. For all four, though, the adjustment eventually led to graduation.

Student 1. An Hispanic female who graduated in four years. Her academic path started slowly in the freshman year, she had a successful sophomore year, had a challenging first semester of her junior year, and then had a very strong finish (see Figure 6).
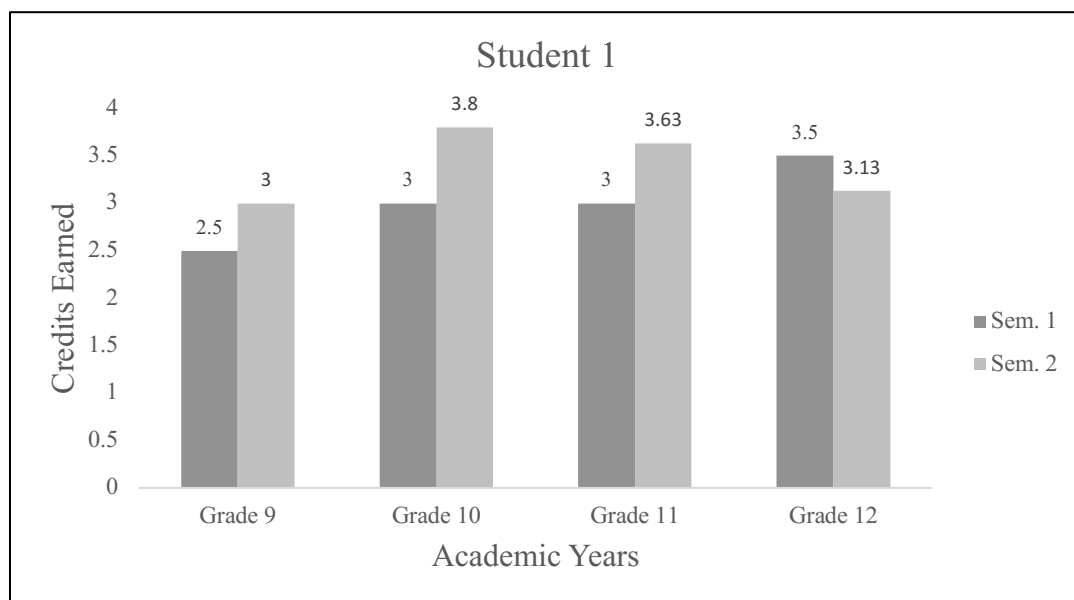

Figure 6. Credits earned per semester for Student 1.

From the data (Figure 7) and comments from the student, there were two points where the trajectory was tipped upwards. One was the summer between her sophomore and junior year when she took a semester of summer school to catch up. This is a school-sponsored credit recovery option generally encouraged by the student's guidance

counselor. Another significant event was the summer between her junior and senior

year when she decided, on her own, to stop taking the medications she was prescribed

for depression. "So, one day I woke up and I was like I should stop doing this to

myself, because it's not healthy, it's ruining my future." This was a personal decision

on her part.

Figure 7. Graduation trajectory by total credits accumulated for Student 1compared to

trajectory of minimum credit progress per semester. Student 1 completed .5 credits of

summer school between grades 10 and 11.

Student 2. A White male who had one slow semester his freshman year and

then made regular, sustained progress through to graduation. He had one challenging

semester (fall of freshman year), then continued with steady progress.

Figure 8. Credits earned per semester for Student 2. The one course he failed in ninth

grade was one that he reported not being able to get motivated to attend. The class

was not at the start of the day "it wasn't a thing I had to get past in my day, I just dreaded it."
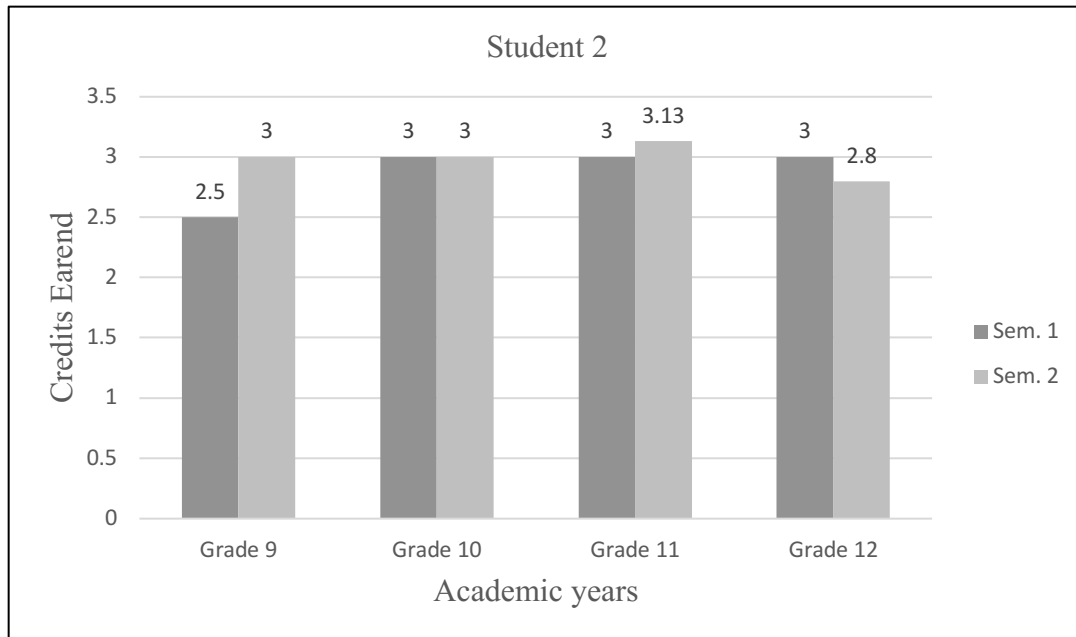
Figure 8. Credits earned per semester for Student 2.

Another factor that had some impact on his academic progress was that every semester in high school he had an off-campus obligation which meant he could only earn 3.0 credits (the minimum expected for on-track graduation) each semester. His trajectory followed the minimum expected. The summer between his ninth and tenth grades he completed a required semester of health that he was not able to fit into his schedule. Otherwise, after the initial credit deficiency, he continued to earn enough credit to successfully graduate in four years (see Figure 9). The student did not report any significant moments that influenced the trajectory he followed. Rather, he reported knowing just what he needed to accomplish to stay on track. "I knew where I was headed and what I was going to do."
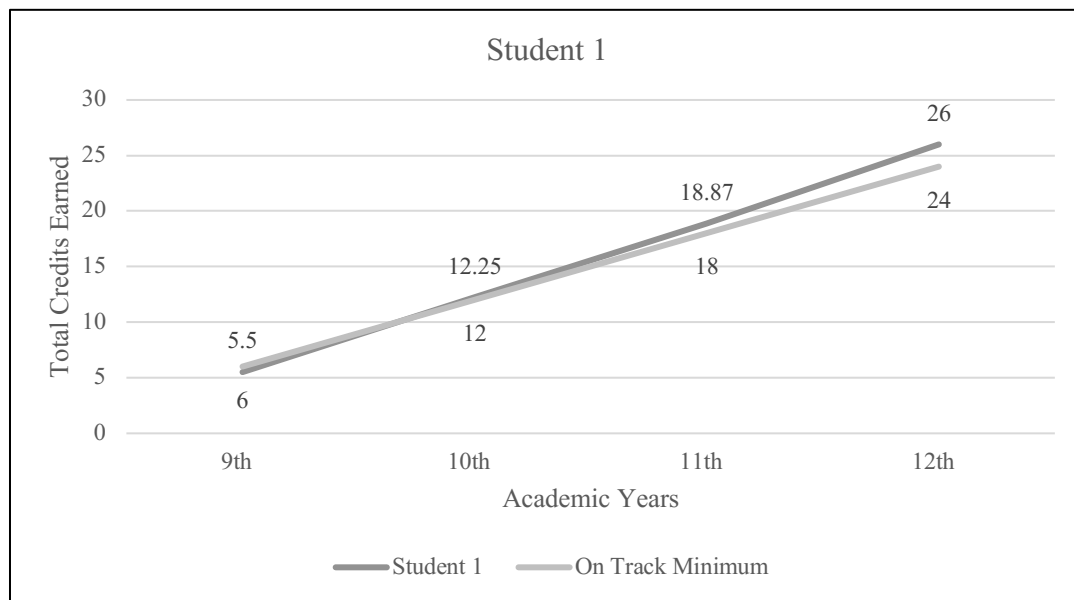
Figure 9. Graduation trajectory by total credits accumulated for Student 2 compared to trajectory of minimum credit progress per semester. Student 2 completed .5 credits in summer school between grades 9 and 10.

Student 3. A White male who received Special Education services all four years of high school. Figure 10 shows the semester by semester progress by credits earned for each year.
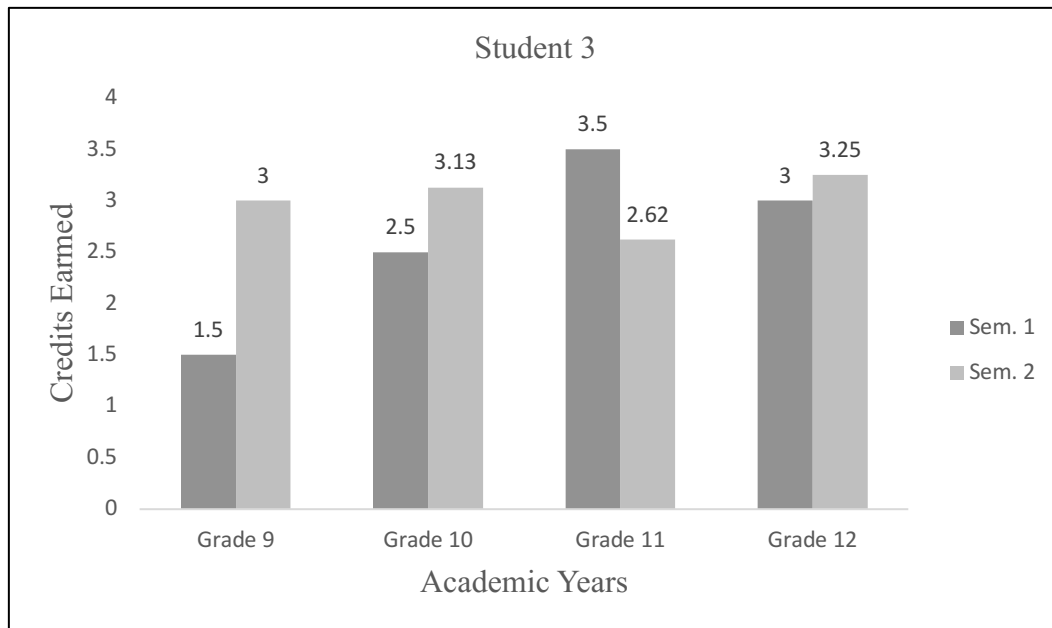
Figure 10. Credits earned per semester for Student 3.

He had a slow start for the first two years and benefited from summer school and after

school credit recovery. The trajectory tipping points for this student were times when

adults reassured him or encouraged him to work hard. One of the adults to whom the

student referred reminded him when he was struggling a bit to finish that "I need to

work on making sure I pass the rest of my classes. I just need to make sure I don't

screw anything up and I. need to keep my nose to the grind." For this student there

appear to be two moments when his academic progress stalled and then regained
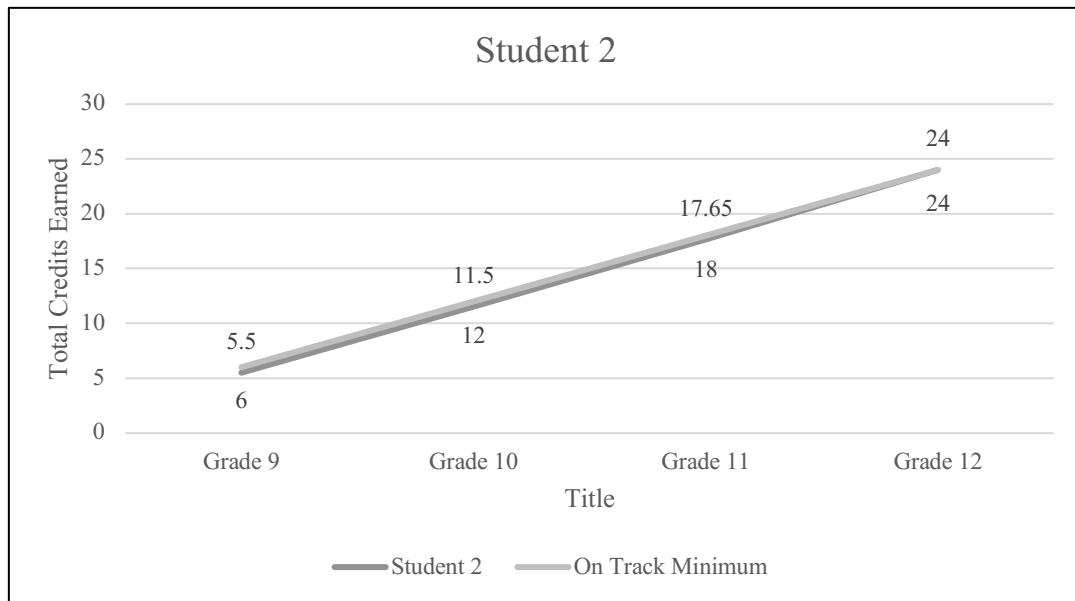
momentum (See Figure 11).

Figure 11. Graduation trajectory by total credits accumulated for Student 3 compared to trajectory of minimum credit progress per semester.

Student 4. An Hispanic male who attended West High School for five academic years. Arriving in the United States with very little English language proficiency or prior education he began his high school career by auditing several courses. His trajectory is quite different from any of the other students interviewed given the challenges he encountered as he entered West High School and the number of years it took him to graduate. Figure 12 shows the semester by semester progress this student made. By the end of his high school career he earned almost a full year's worth of additional credit. When asked why he took the extra classes beyond what he needed the student responded "I wanted to prepare myself for college. I wasn't just making up credits, I was getting ready for college."
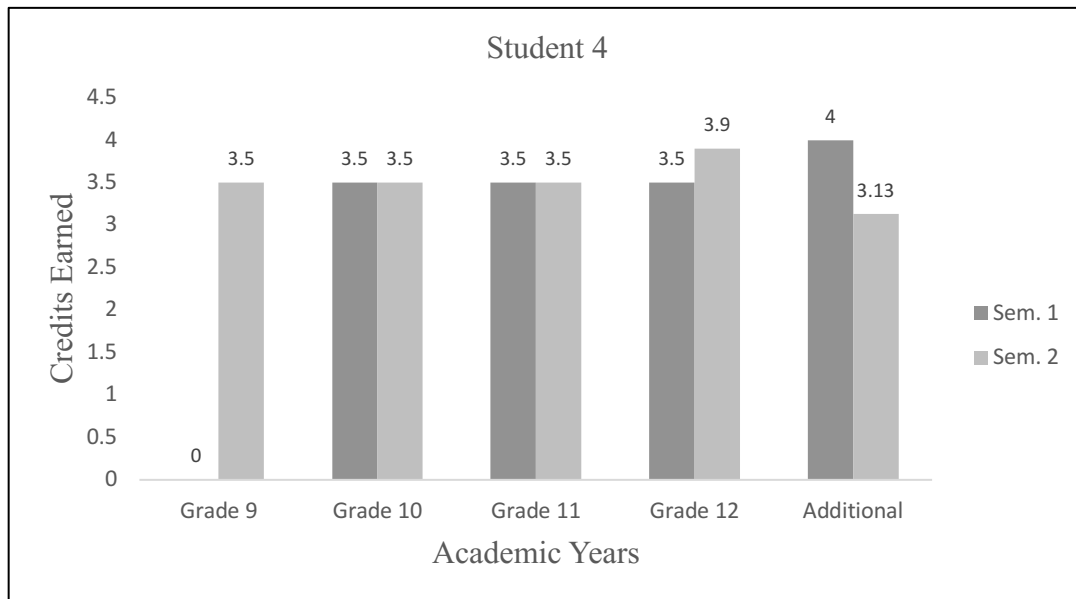
Figure 12. Credits earned per semester for Student 4. This student audited three courses in Grade 9 and took one summer school between grade 11 and grade 12 earning .5 credit.

The tipping point for this student was when an adult gave him the encouragement to return for another year. The conversation took place during his junior year. "I thought it was a great chance." Figure 13 shows the long path this student took through West High School and onto college.
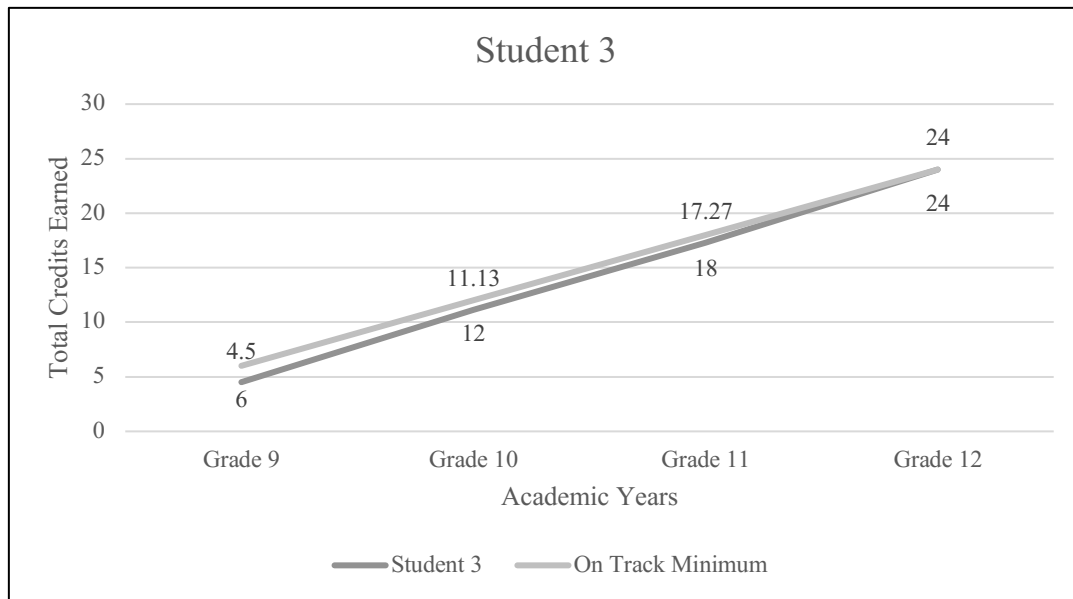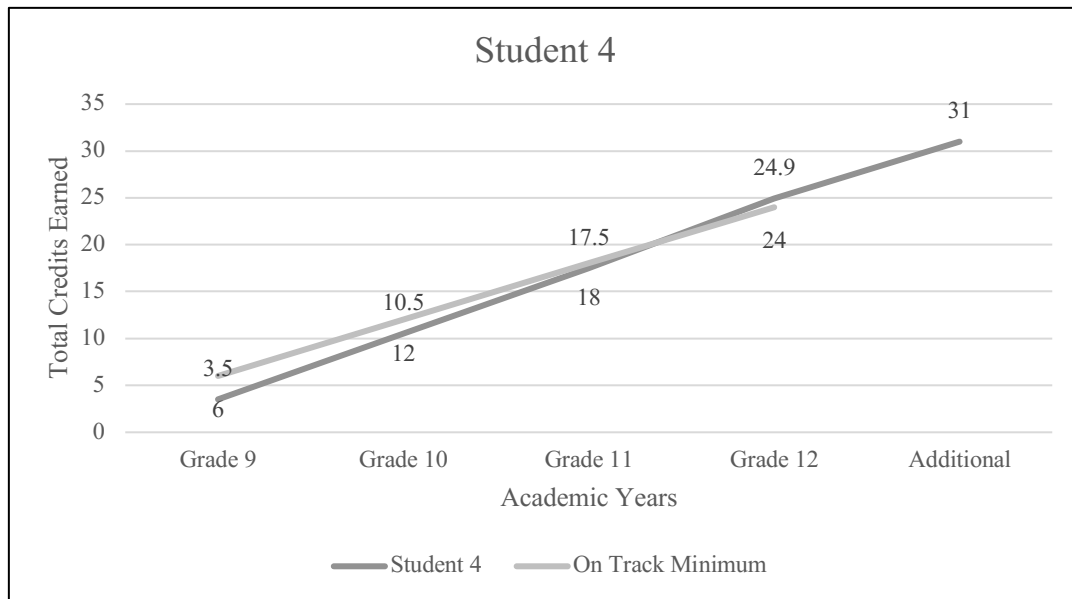
Figure 13. Graduation trajectory by total credits accumulated for Student 4 compared to trajectory of minimum credit progress per semester.

Research Question: For underrepresented minorities, were there any factors of the school culture or the structures at this school, that particularly influenced their academic success?

Two of the four interviewed students were Hispanic, one male and one female. Each of the students referred to the role their families played as encouragers for their success. For one student it was his brother who "encouraged me to come to school and told me he was also going to school to get a start here (in the United States)." Both students were first generation high school graduates and first-generation college students. One of the two received support from English Language Learning services during high school while the other did not. They each spoke to elements of the culture that were influential during their high school years. One student did report that the lack of a dual language program, during her time at the school, was disappointing.

She benefitted from a dual language emersion program in elementary and middle school and it helped her "I was able to study Spanish and English at the same time." During the time she attended West High School the dual language program did not exist. "I'm losing my Spanish. I don't even know to spell correctly in Spanish anymore. It makes me really sad."

For many underrepresented students additional time appears to make the difference between graduating or not. "For me it was a great chance. I knew if I can graduate, I can go to college. I can get more prepare." From the Class of 2017, six students graduated at the end of the year after spending an additional year at West High School. Of those students five were Hispanic (one female and four males) and one was White (male). In addition, twelve students did not graduate in June of 2017 but instead returned in the fall for more schooling. Of the returning students ten were returning for a fifth year and two for a sixth year. One of the interviewed students commented that the extra time he was given to complete high schools made the difference between graduating and not.

Summary

This investigation was designed to collect data about the influence a school's culture may have on the success of individual students. In particular, the researcher was interested in the influence that a school's culture could have on fostering or drawing on individual student resilience as a way to support students toward graduating from high school. In summary, the combination of the three data sources provided substantial evidence about the school's culture; depiction of the common pathways most students travel toward graduation; and details of the lived experiences

of individual students. Survey results appear to describe a school culture that is perceived positively by students. Three, research supported, elements of strong school cultures appear to be present, as demonstrated by the survey results. West High School students describe, through the survey results, a school where students feel a sense of purpose, support, and safety.   Although students can travel several paths to successful graduation, the most common path for student who are initially at risk, appears to be three (or more) productive or moderately productive years. The lived experiences of students that are described in the interviews suggests that success along this pathway is supported by teachers and the culture at large. The role of resilience comes through in the narratives of students and is described as a factor that individual students draw on themselves. The personal drive to succeed for some of the interviewed students was the result of personal awareness developed during times of challenge. Student resilience appears to be present and the strength of the culture is perceived by at-risk students. Although it appears that a strong school culture was perceived by students, the role the culture played in drawing out this trait still remains unclear.

Chapter 5: Discussion

Research in the area of adolescent resilience points to the necessity of promotive or protective factors. These factors influence and support the development of resilience. This is especially true for youth (Masten, 2001). The results of this study appear to demonstrate the presence, within one school's culture, of key protective factors. These include caring adults, a school in which students feel connected, and the opportunities to participate in the school culture. Both the student survey and individual student narratives point to the presence of these factors. The review of the trajectories that potentially at-risk students took through the school appears to demonstrate that the predicted path was interrupted somehow. In this chapter, the results of all three data sources are combined to generate triangulated findings.

Results

The literature reviewed in this study points to a number of reasons students do not find success in high school. Credit deficiency, repeating grades, disengagement from school, and a lack of support. Research also described ways that a school's culture may influence the development of resilience and the role schools can play in encouraging academic success. Results from this study support these findings.

Credit deficiency especially in the ninth grade, is a key factor of risk for students (Allensworth, 2013). The transcript reviews seem to bear out these findings. Of the 51 students who were at greatest risk (fewer than six credits at the end of freshman year) 27 graduated and 24 did not. Of the 24 who did not graduate nearly

70% of this group failed three or four core classes during the freshman year. It appears, for these students, that the gap was too great to overcome. Students who successfully completed high school referred to early support that came to them such as summer school. These students were able to close the missing credit gap early.

Repeating grades is another potential predictor of failure to complete high school (Jimmerson, et al., 2002). The results of the at-risk cohort group, as described in the transcript analysis show mixed results. Although repeating grades was not successful for all students it did bring success to some. Of the eleven members of the at-risk cohort who did repeat grades five graduated and six did not. Of the six who did not graduate, five returned to West High School or another program and only one dropped out. In the class of 2017 six students used an extra year to complete high school and twelve of the members of the class decided to return to West High School for an additional year in the fall of 2017. For most students in this study repeating grades was not found to be automatically detrimental. The narrative of one student pointed out the value of additional time in high school. The student recounted how additional years offered a chance to improve his language skills and become better prepared for college. It is noted that only students who were still members of the student body as seniors are included in this study so some of the students who may have repeated grades and dropped out were not included.

Disengagement from school was cited by Mintz as one of the reasons student used to describe why they dropped out (Mintz, 2007). The survey results show that students at West High School generally perceive that their school is a positive place where they feel safe and supported. The differences between genders, GPA, or years

attending the school were minimal which suggests a culture of engagement that is felt by all. Students who were interviewed expressed connection to school as well and described a community to which they felt connected.

Students who drop out of high school also report that a lack of support from schools was a factor in their decision to leave (Bridgeland, et al., 2006). In Bridgeland's research more than half of the students surveyed reported that there was an adult to turn to for support. At West High School more than 80% of students surveyed for this research reported the presence of at least one adult they could turn to for support. The survey results, especially those in the area of relatedness show that West High School appears to be a school where students perceive support from adults and the school structures. The presence of caring adults who offer help to students is a key element that may positively influence students. Each of the student narratives included comments about particular adults who encouraged, prodded, or supported the students. One student described the influence of a teacher as "the pushing force" that moved him toward success.

Paths to graduation. The first research question asks about the common paths that students take through high school to graduation. Thorough review of the transcripts of students who were initially at risk revealed some key findings. Although individual students make their way through high school there are four common pathways that became clear. The demographic make-up of those trajectories reveals some interesting results when compared to the school's demographics. All three paths show an overrepresentation of male students compared to the school. Only 11 (22%) of the 50 at-risk students were female. The possible explanations for this distribution

were not an aspect covered in the research for this study. The group who followed this path was evenly split racially between the path that had the highest percentage of successful completers was the route that began with a difficult freshman year and was followed by three years of success. It appears that early success after initial credit deficiency can put students back on track to graduation. White and Hispanic students and is relatively close to the demographics of the school. The next most successful pathway was one that included moderate gains in credits each year and credit recovery attempts. Most of these students benefited from credit recovery, summer school, repeating a year, or a combination of these three interventions. Research is clear (Allensworth & Easton, 2007, Balfanz, et al., 2012, Bridgeland, et al., 2006), that getting students back on track after an initial challenge is key. For five of the eleven students in this trajectory making moderate progress in a supportive school culture was the difference between graduating and not. The most challenging pathway was one in which students never seemed to gain traction. The four challenging years pathway was overrepresented by the 16 Hispanic students (5 female and 11 males). Native Hawaiian/Pacific Islander (3 students) and Whites (4 students) made up the rest of this group. The reasons for the overrepresentation of minority students in this trajectory are unclear from the data available. Only four of the students received English Language Learner services and two of those students graduated. Five of the eleven who did not graduate received Special Education services and this is another overrepresentation in this group. Fully understanding these results is beyond the scope of this research study. Research on the role of promotive factors (Masten, 2001, Fergus & Zimmerman, 2005, Zimmerman, et al., 2013) all point to the role of a caring

adult in the life of successful students. The nine students who received services for language or learning certainly have an adult assigned to them in a supportive role as a counselor, case manager, or ELL teacher. Further research is necessary to uncover why, despite this support, these students fell into this pathway and were not able to move out of it and onto graduation. Overall, Hispanic students are overrepresented among the non-graduates and in the pathways that showed the lower rates of successful high school completion.

Resilience. Two of the research questions pertain to the presence and value of resilience. Research is clear that resilience is a trait that develops over time and is supported by the presence of heathy, positive systems (Masten, 2001). This research sought to understand what factors within a school's culture or structures could support the development of resilience. Fergus and Zimmerman (2005) describe a three-tiered model of resilience that describes how positive factors around an individual can prevent risk from leading to negative outcomes. The three factors of this model are compensatory, protective, and challenge. Compensatory factors are those that counteract risk factors that are present. The presence of this factor usually is defined when the compensatory factor counteracts directly with the risk factor (Fergus & Zimmerman, 2005). This research found few examples of this direct relationship. In the challenge model there are factors at work that are low-level threats that inoculate youth, over time, from risk (Fergus & Zimmerman, 2005). Examples of the threat of failure creating a promotive influence on students were not found in the results of the survey or interviews.

The findings of this research project point more directly to the presence of protective factors within the school culture studied. Protective factors include assets and resources. Assets are those factors particular to individuals such as efficacy, identity, and a focus on the future (Zimmerman, et al., 2013). These assets come through clearly in some of the student interview comments. Students talked about being focused on doing well in school or graduating as steps toward their future. "I was dead set on getting back on track," one student commented. Another student recalled that "I had to do it. I am someone who would never give up, work harder to get through and work hard for my goal and dream." And a third added, "I knew I needed to get my education. It's the most important thing you can do for yourself." They also noted personal strengths that they drew on. One reported being very independent, a trait developed over years of taking care of a younger sibling. Another referred to drawing on overcoming procrastination by using "the things around me like alarms on my phone to tell me you need to do this now and don't put it off."

The research describes a school culture that has many resources available to students. Research on resilience (Fergus & Zimmerman, 2005, Zimmerman et al., 2013) points out that relationships with caring adults is a critical promotive force for adolescents. The interview narratives are replete with examples of strong adult relationships. Students talked about asking for help from counselors and teachers when needed. "She was always there," "he was the pushing force", and "they're there for me and support me. I think it's not just for me, they're going to do it for everyone who is going to ask for help." From these quotes it appears that for these students,

adults were present and accessible. Student survey results also identify the presence

of adult relationships in the school (see table 31).

Table 31

Examples of strong adult relationships as indicated by percentage of favorable survey

responses

Question	%
Adults at my school are interested in how students are doing	86.9
My teachers give me extra help when I need it.	84.7
Adults at my school are interested in how students are doing.	84.8
When I have a problem, there is at least one adult at school I can trust.	82.0
My teachers care about me.	83.8

Note. Percentage is the total of strongly agree and agree responses

Of students surveyed only 9% reported that teachers were more interested in punishing

students than helping them. When asked the question "were there any people who

treated you unfairly, ignored you, or were more interested in punishing you than

helping you"? all of the interviewees answered a definitive "no."

One last protective factor this research appeared to identify within the school

was the role of participation in extracurricular activities. Zimmerman described this as

an integrated asset and suggests that this promotes healthy development through

exposure to adult role models, a sense of community, the chance to explore interests,

and experience success (Zimmerman et al., 2013). Again, survey results show high

numbers of students who appear to be connected to school through activities as shown

in Table 32. Two of the students interviewed talked about involvement in activities as

important to their time in high school. One student recalled that his involvement as an opportunity to meet friends, while another shared that involvement provided some key lessons about hard work. As a runner this student learned to "focus on my finish line." From surveys and interviews there appear to be several factors present in the culture of West High School that can potentially promote resilience within students.

Table 32

Examples of integrated assets as indicated by percentage of favorable survey responses

Question	%
I feel like this school is the right place for me	77.5
I like going to school events, like sports events or dances	73.0
I am very involved in activities in my school, like clubs and teams	60.5
I do things to support my school	69.3

Note. Percentage is the total of strongly agree and agree responses

Trajectory interruption. There were students in the West High School class of 2017 who were at-risk of not graduating at the end of the ninth grade. Of the 51 students who, in January, who were identified as members of the at-risk cohort, 27 graduated. Their trajectories were tipped toward graduation. The results of analysis of the transcripts appears to suggest that the school culture that exist has was able to influence the trajectories of students along a moderately challenging path. All of the students in the at-risk cohort were academically challenged and had an increased chance of dropping out at the end of the freshman year. All of the students whose initial risk was followed by moderately productive years graduated. These sixteen

students drew on summer school or other means to get back on track. The influence on the trajectory was enough to move them all toward graduation. Students who followed the initial year of challenge with moderate academic progress showed mixed results. Of the eleven students who followed this path only five graduated. The school's culture appears to not have exercised enough influence on the trajectories of these students. Finally, of the 20 students who continued to struggle through four extremely challenging years, only three graduated and eleven returned the next fall for additional years. The protective factors of the school culture apparently were not able to act on the trajectories of these students enough.

Limitations

One overarching limitation of this study was the experience and involvement, by the researcher, in the school being studied. For several years, prior to the study, the researcher was instrumental in guiding the school through deliberate and intentional school improvement efforts. Deep personal involvement in these efforts, and investment in seeing them bring about results, were potential influences on the ability of the researcher to maintain a neutral role as observer.

An additional limitation is that the research was conducting in one high school. Given the study's focus on how a school culture fosters success, only students who were still in school during the last part of the senior year completed the survey and only student who graduated were interviewed. This narrow collection of students meets the needs of the research purpose. It is nonetheless, a limitation that may have an impact on generalizability of the findings. The administration of the surveys took

place in classes during the last two weeks of the year. Attendance may be a limiting

factor on the response rate and the variation of the survey of the respondents.

Another limitation for the survey, transcript reviews, and interviews is the

limited scope of the membership of the members of the graduating class studied. The

students who were available to take the survey, or whose transcripts were reviewed, or

were available for interviews were only those students still present at West High

School in January, 2017. The final validated graduation rate for the class of 2017 was

82%. This leaves 18% of the students who (at some point) attended West High School

as members of the 2017 graduation cohort, unaccounted for and unavailable to the

study.

There are several potential limitations to the interview process.   As required by

the school district IRB approval, the interviews took place after students graduated. A

potential limitation was getting students to agree to meet for the interview. The

interviews took place, by necessity, after the graduation status of all of the students

was completed in October, 2017. This meant that interviews could not begin until

well in the fall, following graduation. As a result, contacting and arranging interviews

with students proved challenging. The four students interviewed were ones who

responded to the multiple phone messages and text messages and were available for

interviews.

Finally, there are limitations that may exist within the survey and interview

tools. The tools used are validated by other researchers. These tools were designed to

answer slightly different research questions than those for this study. A possible

limitation is that the tools do not completely align with the research questions or may align with only some of the questions.

Future Research

This research focused only on students who successfully completed high school. Students at West High School certainly perceived the presence of a strong school culture and interviewed students could explain how the people and climate of the school assisted in their success. The resilience that students described and demonstrated was bounded within that strong culture. Future research that is focused on students who were not successful is warranted. Some questions remain about the influence of strong school cultures on all students. Additional research may uncover the reasons, why some students appear to be influenced by strong school cultures while others are not. Resilience, and students' awareness of its presence, may offer a source of motivation and support. Further study is needed to identify how schools could help students identify and draw on personal resilience. Also, deeper study may lead to an understanding of why, despite the presence of resilience, some students still do not experience success in high school. The graduation rate for West High School's class of 2017 was 82%. A question lingers as to why the presence of, what appears to be, a strong school culture was not able to support success for 18% of the class.

Implications

The findings of this research offer insight for educational leaders, especially in secondary schools. There are philosophical, practical, and policy implications that may arise from this study. From a philosophical perspective, secondary educators may need to consider what the values are that they currently bring to their work with

high school students. The results of the research reinforce the importance of valuing the life experiences, struggles, and aspirations of every student. Students voiced the impact that key individuals had in recognizing their assets and challenges and then using that understanding to support their success. School leaders can help foster values within their schools that demonstrate that they believe in the individual potential of all students and that they will work to support each one in the way that best meets their needs.

These values need to take practical shape in the school culture. School leaders should expect that teachers and staff forge positive relationships with students. These relationships create results when they are employed in the service of supporting individual success. The work of Bryan et al., points out that students who are linked to a caring adult leads to increased connection to school and success (Bryan et al., 2011). According to Bridgeland, students want to be pushed and inspired to work hard (Bridgeland, 2006). When strong relationships exist without the accompanying leverage of support and expectation results can be limited. Teachers may know students very well, but if that relationship is not joined with other efforts, adults may know students well and watch as the students they know fail. Practical applications of these ideas may include deliberate adult monitoring of student progress, mentoring, and advising.

Another practical implication of the findings of this study relates to the sense of urgency that adults put on students for completing high school. This research study found that many of the students who ended up succeeding were those who took additional years past the expected four. Six students graduated in 2017 who needed

additional time and twelve students who did graduate in June of 2017 returned to complete their educations. State report cards often report graduation rates as how many students completed high school in four years. This may create the unintended consequence of encouraging schools to push students to accumulate credit faster than they may be able. In addition to the increase in four-year graduation rates, West High School's five-year graduation rate increased by 4.1 percentage points to a rate of 85.1%. If successful moving students to completion of high school became the primary goal and four-year graduation was secondary, schools may reduce the sense of urgency on students and move them to completion.

The research on resilience is clear that a focus on this trait derives from a strength-based perspective. Schools that want to draw on the existence of resilience within at-risk students should be guided by an asset-based perspective for their work with students. Resilience theory encourages the development of enhancing the promotive factors that surround a student instead of trying to minimize or compensate for the deficits present in a youth's life. From a practical perspective, school cultures that recognize and foster student resilience through conversations with adults, self-reflection by students, and support through challenging moments will support students as they draw on their resilience. Schools with this environment have the potential to adjust student trajectories away from risk and toward success.

The student narratives offer personal and specific insight into the lived experiences of students who were, at one time, at-risk. A final practical implication or recommendation for secondary leaders is to consider interviewing students to get first-hand information about how well the school structures and culture are serving the

needs of students. Schools rely on a wealth of quantitative data to assess progress.

Qualitative, first person narratives, offer insights that may give deeper reality.

Interviews of at-risk ninth grade students, for example, could shed light on current

issues and challenges that exist within a school that may not show up for that student,

or others, for years.

One potential policy consideration that is supported by work of Balfanz and

others is the use of data to identify students who are at risk of failure or dropping out

early (Balfanz et.al., 2011). This research study tracked the progress of students who

successfully completed high school after initially being off-track to graduate at the end

of the ninth-grade year. Many of the students in this study benefitted from existing

supports or credit recovery options. For the time that these students attended West

High School there was not a systematic method for early identification of risk,

consistent intervention of support, and on-going tracking of progress. Since their

departure an early warning system was added that allows staff to identify and track

student progress. A practical improvement for schools is to use an early warning tool

to identify students at risk of dropping out early and to apply a variety of measures to

encourage the development of resilience with the goal of getting the student onto a

track on which they experience greater success.

Conclusion

A student's journey through high school is a personal one. Each student brings

assets and challenges along the high school path. In addition, there are numerous

factors and forces at work that influence student decisions throughout their high

school years. The decision to drop out of high school or graduate is an individual one

that can be shaped by the culture of a school. The structures, policies, and people that make up the ethos of the school can have a strong influence on the path a student travels. One potential asset that many students possess is the resilience they developed through overcoming personal challenges. If schools can recognize the resilience present is some of their students, they may be able to draw on this asset to move more students toward graduation and on into their future.

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Appendix A: Survey

Survey Introduction

The following introduction was read by the researcher to survey participants prior to administration of the survey:

The information from the survey is part of a research project being conducted about the culture at (the real name of the high school was included here) High School. The answers you provide will be used as part of the research project. You may have attended other high schools in the past. As you consider your answers please answer only about your experiences at (the real name of the high school was included here) High School. Let me know if you are under the age of 18. Thank you for taking the time to complete this survey if you choose to do so.

Survey Instrument

West High School Survey

The information from the survey is part of a research project being conducted about the culture at West High School. The answers you provide will be used as part of the research project. You may have attended other high schools in the past. As you consider your answers please answer only about your experiences at West High School. Thank you for taking the time to complete this survey.

Q1 What is your current age?

   ○ 16 years (1)

   ○ 17 years (2)

   ○ 18 years (3)

   ○ 19 years (4)

   ○ 20 years (5)

Q2 What is your gender?

   ○ Female (1)

   ○ Male (2)

   ○ Choose not to indicate (3)

Q3 How long have you been in high school?

○ 3 years (1)

○ 4 years (2)

○ 5 years (3)

○ 6 years (4)

Q4 How many school years have you attended West High School?

○ 1 year (1)

○ 2 years (2)

○ 3 years (3)

○ 4 years (4)

○ 5 years (5)

○ 6 years (6)

Q5 What is your current, cumulative Grade Point Average (GPA)?

○ under 1.5 (1)

○ 1.5 to 2.0 (2)

○ 2.1 to 2.5 (3)

○ 2.6 to 3.0 (4)

○ 3.1 to 3.5 (5)

○ 3.6 and higher (6)

- -

Q6 Teachers at my school care about their students.

○ Strongly Agree (1)

○ Somewhat agree (2)

○ Neither agree or disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

- -

Q7 Adults at my school are interested in how students are doing.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree or disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q8 My teachers care about me.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q9 Adults at my school ask students how they are doing.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q10 My teachers give me extra help when I need it.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q11 Adults at my school are friendly to students.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q12 I like to make my teachers happy.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q13 When I have a problem, there is at least one adult at school I can trust.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q14 I feel like I fit in with the other students at my school.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q15 I think my classmates like me.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q16 I feel comfortable around the other students at my school.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q17 I get along with the other students at my school.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q18 I like spending time with my classmates.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q19 I can find a friend to sit with at lunch.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q20 My classmates ignore me.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q21 I feel lonely at school.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q22 I often argue with my teachers

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q23 I wish my teachers would leave me alone.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q24 Teachers at my school are unfair to students.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q25 I think the things I learn at school are useless.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q26 I wish my classmates would leave me alone.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q27 People I care about say bad things about my school.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q28 I often feel bored in class.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q29 Adults at my school care more about punishing students than helping them.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q30 I only go to school because I have to.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q31 I often daydream or goof off in class.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q32 My teachers only notice me when I do something wrong.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q33 I would rather go to a different school.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q34 Students at my school bully each other.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q35 I often skip class.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q36 I feel comfortable asking most of my classmates for help with a problem.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q37 I am very involved in activities in my school, like clubs or teams.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q38 I encourage other students to get involved in school activities.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q39 I do things to support my school.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q40 I like going to school events, like sports events and dances.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q41 When I have a problem, I ask my friends at school for help.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q42 I talk to my friends at school about how I am feeling.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q43 I try to make my teachers happy.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q44 I help my friends at school with their problems.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q45 I care what my classmates think of me.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q46 I often fight with my classmates.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q47 I talk back to my teachers.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q48 I think school is important.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q49 I care about my teachers' opinion of me.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q50 I try to do my best at school.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q51 I feel like this school is the right place for me.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q52 I think my school is a safe place to be.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q53 I would feel upset if someone said bad things about my school.

○ Strongly agree (1)

○ Somewhat agree (2)

○ Neither agree nor disagree (3)

○ Somewhat disagree (4)

○ Strongly disagree (5)

Q54 I will graduate on time this spring

○ Definitely yes (1)

○ Probably yes (2)

○ Might or might not (3)

○ Probably not (4)

○ Definitely not (5)

Appendix B: Interview

Interview Questions

Introduction : Thank you for agreeing to talk to me today about your experiences at West High School. The information from the interviews I'm conducting are part of a research project I am conducting about the culture at West High School. The answers you provide will be used as part of the research project. You may have attended other high schools in the past. As you consider your answers please answer only about your experiences at West High School.

Demographic questions

Gender: Female   Male Choose not to say
How old are you?
How many years were you in high school total?
How many years did you attend West High School?
Currently what was your cumulative grade point average (GPA) at the end of high school?
- o   Under 1.5
- o   1.51-2.0
- o   2.1-2.5
- o   2.6-3.0
- o   3.1-3.5
- o   3.6-4.0

For my research I'm interviewing students who were at risk of not graduating from high school.

1. Were you aware that you were identified at the end of ninth grade as being at-risk for not graduating from high school? If so, how were you made aware that you were at risk?

2. Tell me briefly about your educational journey from elementary school through high school?
a. Elementary and Middle School (Peers, teachers, subjects, behavior, extra-curricular). What was easy for you? What was hard for you?
b. How did the transition to high school go for you, were you comfortable, nervous?
c. Describe each grade in High School. What was easy? What was hard?
9th grade, 10th grade, 11th grade, and 12th grade

3. Were there personal struggles you dealt with while in high school? Did those struggles affect your success in school? If yes, how? If no, why not?

4. While you were in school what success did you have? What helped you succeed?

5. When you think about why you went to school every day, what reasons made you go?

6. If you had to choose three factors that helped you graduate, what would they be? How did they help you succeed?

7. During high school were there any people who helped you along the way? Can you describe the role they played in your success?

8. During high school, were there any people who made it difficult for you to succeed? Can you describe how they affected your journey?

9. Was there a moment during your high school journey that you can remember when you thought about dropping out? Is so why? What made you stay?

10. Was there a moment during your high school journey that you can remember that was the turning point for you that led to graduation? If so, please tell me about that.

11. What does graduating from high school mean to you?

12. What does graduating from high school mean to your family?

13. When you look back on your educational journey, do you have any regrets?

14. If you could give advice to teachers and administrators about West High School, what advice would you give?