

ABSTRACT

PREDICTORS OF STUDENT SATISFACTION AND  
HIGH SCHOOL COMPLETION INTENTION AT  
BOSTON ADULT TECHNICAL ACADEMY

by

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Main adviser: Jorge A. Hilt

## ABSTRACT OF GRADUATE STUDENT RESEARCH

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Title: PREDICTORS OF STUDENT SATISFACTION AND HIGH SCHOOL  
COMPLETION INTENTION AT BOSTON ADULT TECHNICAL ACADEMY

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### Problem

This study sought to investigate if mentorship as perceived by students, school climate as perceived by students, and self-efficacy are predictors of student satisfaction and high school intention completion at Boston Adult Technical Academy, an alternative high school in Boston, Massachusetts, USA.

### Method

This research was quantitative, non-experimental, cross-sectional, and predictive. The study population was made up of 140 students at Boston Technical Academy, an alternative school in the Boston Public Schools system (BPS). Five instruments were administered, and 72 respondents of the population described participated.

The technique of factorial analysis was applied to test the constructs of the instruments used and their reliability was evaluated with the McDonald's coefficient and found to be acceptable. Linear regression was the statistical technique utilized for the analysis of the hypothesis.

## Results

In this study, the three null hypotheses were all rejected since the indicators show acceptable levels of model fit.

The  $H_{01}$  was rejected. School climate and self-efficacy were the best predictors of school satisfaction. They explained 40.3% of the variance of the dependent variable school satisfaction.

In the  $H_{02}$ , the best predictor model showed that self-efficacy and mentorship explained 27.1% of the variance in intention to persist in school.

The  $H_{03}$  was also rejected. The predictor model showed that school satisfaction explained 8.6 % of the variance in intention to persist in school.

The Path Analysis Model revealed that of the three indicator variables under investigation in the current study, school climate and student self-efficacy were the stronger predictors of school satisfaction and intention to persist in school than mentorship. Student self-efficacy had a variance of .43 on the intention to persist in school. The overall best predictor of school satisfaction and intention to persist in school was student self-efficacy with a variance of .37 on School satisfaction ( $\beta = .37$ ) and .43 ( $\beta = .43$ ). on intention to persist in school.

Results of this study also indicate that there is a significant difference in the perception of school climate between working students and non-working students. The regression analysis has revealed that students who do not work are more satisfied with school ( $M = 4.16$ ) than those who work ( $M = 3.90$ ).

## Conclusions

The analysis of the data gathered in this study was done by regression and path analyses and revealed that self-efficacy and school climate were the most significant predictors of school satisfaction and intention to persist in school at BATA. Mentorship was a positive but weak indicator of school satisfaction and intention to persist in school.

There is also a difference in the level of perception of school satisfaction among students who work and those who do not. Having to work and spend less physical time in school appears to influence how students feel about school climate and school satisfaction.

Montemorelos University

School of Education

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Seneca E. King

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INTENTION AT BOSTON ADULT TECHNICAL ACADEMY



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## DEDICATION

I dedicate this work to my beloved late mother – Elsie King, loving sisters Sheryl King-Henry, and adopted sister Sheryl Griffith, brother Llyod Wood, cousin Felix Pearson, and Kay Accardi (my American mother), friends Dr. Milton Samuel and wife Marjorie, and Alexis Niles who accompanied me on this research journey with their prayers, and words of encouragement.

## TABLE OF CONTENTS

LIST OF FIGURES.....	vii
LIST OF TABLES.....	viii
ACKNOWLEDGEMENTS.....	ix
Chapter	
I. NATURE AND DIMENSION OF THE PROBLEM.....	1
Introduction.....	1
Background to the Problem.....	2
Relationships Among the Variables.....	3
Mentoring.....	3
Mentoring and Student Satisfaction.....	5
Mentoring and High School Intention Completion.....	10
School Climate.....	11
School Climate and Student Satisfaction .....	13
School Climate and High School Intention Completion.....	19
Self-Efficacy.....	22
Student Self-Efficacy and High School Satisfaction.....	24
Student Self-Efficacy and High School Intention Completion.....	28
Objective of the Study.....	30
Hypotheses.....	30
Justification.....	31
Importance.....	31
Limitations.....	32
Delimitations.....	32
Problem Statement.....	33
Philosophical Background.....	33
Definition of Terms.....	41
II. LITERATURE REVIEW.....	42
Mentoring.....	42
School Climate.....	46
Student Self-Efficacy.....	48
Student Satisfaction.....	50
High School Intention Completion.....	54

III. METHODOLOGY.....	58
Introduction.....	58
Type of Investigation.....	58
Population and Sample.....	59
Variables.....	59
Instruments.....	59
Mentorship as Perceived by Students.....	59
School Climate as Perceived by Students.....	60
Student Self-Efficacy.....	60
Student Satisfaction.....	60
High School Completion Intention.....	61
Operationalization of Variables.....	61
Data Collection.....	61
Ethical Aspects.....	61
IV. ANALYSIS OF THE RESULTS.....	64
Introduction.....	64
Participants.....	64
Demographic Description.....	65
Age.....	65
Gender.....	66
Grade Level.....	66
Work/Employment Status.....	66
Habitation Status.....	67
Language.....	67
Reliability.....	68
Description of Mentorship.....	68
Description of School Climate.....	70
Description of Student Self-Efficacy.....	71
Description of Intention to Persist in School.....	72
Description of Student Satisfaction.....	72
Hypotheses Test.....	72
Null Hypothesis Test 1.....	74
Multiple Regression Assumptions.....	74
Residual Independence.....	74
Non-Collinearity.....	75
Normality of Residuals.....	75
Homoscedasticity.....	76
Linearity.....	77
Null Hypotheses Test 2.....	78
Multiple Regression Assumptions.....	78
Residual Independence.....	78
Non-Collinearity.....	79
Normality of Residuals.....	79

Homoscedasticity.....	80
Linearity.....	81
Null Hypotheses Test 3.....	82
Multiple Regression Assumptions.....	82
Residual Independence.....	82
Non-Collinearity.....	83
Normality of Residuals.....	83
Homoscedasticity.....	84
Linearity.....	84
Secondary Results.....	84
Path Analysis.....	84
V. SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS.....	87
Introduction.....	87
Summary.....	87
Methodology.....	91
Results.....	92
Discussion.....	93
Conclusions.....	97
Recommendations.....	98
Appendix	
A. INSTRUMENTS.....	100
B. DEMOGRAPHIC INFORMATION.....	106
C. RELIABILITY OF VARIABLES.....	113
D. DESCRIPTIVE INFORMATION.....	119
E. HYPOTHESES TESTS.....	125
REFERENCES.....	151

## LIST OF FIGURES

1. Graphic P-P Normal Residuals Standardized.....	76
52. Graphic of Dispersion.....	76
3. Standardized Residuals of School Climate.....	77
4. Standardized Residuals of Self-Efficacy.....	77
5. Graphic P-P normal Residuals Standardized of Intention to Persist in School.....	80
6. Graphic of Dispersion.....	80
7. Graph of Residuals vs Mentorship.....	81
8. Standardized Residuals of Self-efficacy.....	81
9. Graphic P-P Normal Residuals Standardized of Intention to Persist in School.....	83
10. Graph of Dispersion.....	84
11. Path Analysis Model.....	85

## LIST OF TABLES

1. Description of Dimensions of Mentorship.....	44
2. Operationalization of Variables.....	62
3. Description of Instruments.....	63
4. Age of Students.....	65
5. Gender of Students.....	66
6. Grade Level of Students.....	66
7. Work/Employment Status of Students.....	67
8. Habitation Status of Students.....	67
9. First Language of Students.....	68
10. Reliability Statistics.....	69
11. Arithmetic Mean and Standard Deviation for Mentorship.....	69
12. Arithmetic Mean and Standard Deviation for School Climate.....	70
13. Arithmetic Mean and Standard Deviation for Student Self-Efficacy.....	71
14. Arithmetic Mean and Standard Deviation for Intention to Persist in School.....	72
15. Arithmetic Mean and Standard Deviation for Student Satisfaction.....	73
16. Summary of the Regression Model of School Satisfaction.....	75
17. Summary of the Regression Model of Intention to Persist in School.....	79
18. Second Summary of the Regression Model of Intention to Persist in School.....	82
19. Criteria and Results of Path Analysis Model.....	86

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## CHAPTER I

### NATURE AND DIMENSION OF THE PROBLEM

#### **Introduction**

According to Balfanz et al. (2014), the USA's high school graduation rate in 2009 was 75.5%, and more than one million high school students drop out of school annually. In addition, Princiotta and Reyna (2009) reported that nearly five million young adults aged 18 to 22 years lack a high school diploma. Another author stated that approximately forty million Americans over the age of sixteen have not completed high school (Gewertz, 2017). Moreover, according to Princiotta and Reyna (2009), the United States ranks twentieth out of twenty-eight among the industrialized nations of the world in the context of high school graduation. The National Center for Education Statistics (2022) reported that there were 2.0 million status dropouts between the ages of 16 and 24, and the overall status dropout rate was 5.3%. Status dropouts refer to individuals between the ages of 16 to 24 years who are not currently enrolled in high school or who have not earned any official high schools' credential such as a high school diploma or its equivalent such as a GED certificate.

Students are the major stakeholders in any educational institution and knowing how to increase their satisfaction and support them in accomplishing their academic goals has been and continues to be the subject of many empirical studies in multiple educational contexts. This is the case because student success plays a significant role in impacting a country's economic and social growth by producing creative, innovative, and entrepreneurial graduates (Yadav et al.,

2012). Thus, creating a school climate that fosters student satisfaction and student success has never been more important for any institution of learning. Research in this area suggests that while there is a certain degree of agreement about factors that can impact student satisfaction, student completion of high school, and student success, the determinants are not finite, not always easily identifiable nor easily measured, hence the need for continued engagement with this concept among researchers. Moreover, each educational context is unique and the interplay among constructs may differ in each place studied (Yadav et al., 2012).

This study seeks to explore how the constructs of mentorship, school climate, and student self-efficacy may influence and predict student satisfaction and high school completion intention at Boston Adult Technical Academy (BATA) in Boston Massachusetts.

### **Background to the Problem**

Princiotta and Reyna (2009) identified four (4) major reasons why young people drop out of high school without a diploma. These are an academic failure, behavioral problems, life events, and disinterest. Lifting the cover and extending this research even further, Washor and Mojkowski (2013), expand the reasons for high school attrition as students not fitting in; students perceiving that they do not matter; overlooked talents and interests of students; and restrictions to student learning. They summarized the four reasons under the broad term of “student disengagement” from schools and from productive learning and posit that these in turn result in poor student performance.

The national statistics on attrition are very troubling for high schools. Moreover, as a teacher at an alternative high school designed to re-engage high school dropouts in learning and supporting them to earn their high school diplomas, I have observed first-hand how many of them continue to struggle with completing high school even as adult learners. There are multiple

factors or hurdles that contribute to this struggle. Clearly, there needs to be not just a national response as called for by USA President Barack Obama, but within each state's public school system and within each system's district schools, a concerted response must be launched to stem the tide of student dissatisfaction with school and the consequent lack of persistence in school.

Focusing on students' completion of high school and on students' satisfaction with their school's education is rooted in the idea that if students can be supported to stay engaged in learning through to graduation at each level of learning (elementary, secondary, and tertiary), they will become more creative, innovative, and entrepreneurial and contribute to their nation's social and economic growth as well as to their efficacy. Many factors both within and external to the school environment interplay to impact student performance and many of these factors can be difficult to measure. As an educator, I am interested in exploring what factors impact student satisfaction and student intention to complete school in the context of my school. I am also deeply interested in finding out if there is anything in the school climate that can be improved to widen the scope of alternative learning opportunities that could enhance and support students' persistence in school at Boston Adult Technical Academy. Though often discussed from an anecdotal perspective, no one has conducted any context-specific research on student satisfaction and high school completion intention at this school.

### **Relationships Among the Variables**

This section contains the relation between variables mentorship, school climate, student self-efficacy, school satisfaction, and intention to persist in school.

### **Mentoring**

Mentoring is defined as an intentional activity whereby mentors execute their responsibilities with conscious effort in a nurturing relationship that has the goal of fostering

the protégé's potential (Haines & Popovich, 2014). An effective mentoring program improves student retention, satisfaction, and overall student success. Moreover, peer mentoring improves student satisfaction or at least reduces student dissatisfaction with school by helping students adapt to the school's culture. Mentoring provides avenues for academic and social integration, and the bolstering of student commitment to their studies (Scribner, 2019).

Peer mentoring is an important component of student satisfaction because it is focused on helping students adapt to the culture of the institution. It not only promotes social integration but academic integration, and goal commitment as well. Scribner (2019) also posited that new students often experience a sense of loss and disconnectedness in their new environment, and peer mentoring can reduce this feeling of isolation and its related anxieties by providing social support and boosting student morale. This finding is confirmed by Collings et al. (2014) who state that peer mentoring provides much-needed support to new students and is therefore an effective retention strategy.

Personal learning theory can be applied to understanding the relationship between mentors and mentees. This theory implies learning in a mentor-mentee relationship is an outflow of the combined qualities of mentor and mentees. Personal learning involves role modeling by the mentor and the development of a trusting relationship with the mentee which in turn enhances the learning skills of the mentee (Schunk & Mullen, 2013).

Mentoring is also a strategic method for increasing positive high school outcomes including high school completion. Studies reveal that mentored adolescents are 52% more likely to stay in school and complete homework assignments than those without mentors (Herrera et al., 2007). Studies also show that mentoring improves the social, emotional, and behavioral development of the mentee as well as their academic success and these transformations occur simultaneously (DuBois et al., 2011). Positive mentorships are pathways for providing support,

guidance, and encouragement that result in the building of social-emotional stability, cognitive improvement, and positive identity of young mentees. Mentors also widen the mentee's scope to develop crucial internal and external assets such as a network of relationships, and accessibility to resources, skills, and values that advance healthy development which can increase student engagement and successful school completion (Powell, 2014).

Research has also shown that positive mentorship undergirds student engagement in school in two main ways. First, mentors can intervene at the level of early warning signs of high school attrition. Student behavior, attendance, and course performance in reading and math are strong predictors of students' likelihood to complete high school and advancing to college (Bruce & Bridgeland, 2014). Students with a GPA of D, the average grade of chronically absent youth, have a higher tendency toward attrition. Positive mentorship has been shown to improve school attendance (Belfanz & Byrnes, 2013).

Mentors can also encourage and support mentees to continue their education post-high school. One national survey revealed that at-risk students with mentors were 55% more likely to continue into post-high school education (enrollment in college) than those without mentors. Similarly, 45% of at-risk students were enrolled in post-secondary educational pathways compared to 29% of those without mentors (Bruce & Bridgeland, 2014).

### Mentoring and Student Satisfaction

The purpose of one study by Scribner (2019) was to explore the relationship between a peer mentoring program and student satisfaction at a private tertiary educational institution. The researchers sought to address the question: Did the addition of a peer mentoring program for first-term students increase student satisfaction with the institution?

The population sample consisted of 59 first-term Allied Health and Nursing students

randomly selected from among students at a post-secondary private institution. A peer mentoring intervention was applied to the experimental first-term group. The measurement instrument applied to all groups was the ATA Career Education Student Satisfaction survey and descriptive analysis was used to examine the differences among the groups. The effect of the peer-mentoring intervention on students' perceived level of satisfaction with the institution was measured by Analysis of Covariance (ANCOVA). Correlations between the groups, educational status, program of study, gender, race, age, and post-test surveys were all examined by multiple regression analysis.

Examination of the initial differences if any between the control group (non-peer-mentored group) and the Treatment group (peer-mentored group) was carried out by Statistical Analysis Software (SAS).

The results ( $F(28, 29) = 1.41, p = .36$ ), revealed that there was no significant difference between Pre-test satisfaction scores between non-peer-mentored students ( $SD = .42$ ) and peer-mentored students ( $SD = .50$ ). This was confirmed by a separate variance t-test using the Pooled method ( $t(57) = -.08, p = 0.93$ ), which revealed that there was no significant difference for the non-peer mentored students ( $M = 4.48$ ) and for the peer mentored students ( $M = 4.49$ ). Thus, it was established that the two groups had similar levels of satisfaction with the institution at the beginning of the term (pre-intervention).

The SAS was also used to examine the post-intervention differences between the two groups. Test results revealed significant differences between the two groups. Satisfaction scores among non-peer mentored students were compared to the non-peer mentored students ( $F(29,28) = 6.22, p < .001$ ). This indicates that the treatment group reported higher satisfaction levels than the control group. This finding was confirmed by a separate variance t-test (the Satterthwaite method) which reported that the mean satisfaction score among peer-mentored students as group

treatment ( $M = 4.73$ ,  $n = 29$ ) was significantly higher than among the non-peer mentored students as the control group ( $M = 4.19$ ,  $n = 30$ ). The t-test also reported a significant difference ( $t(38.36) = -3.95$ ,  $p = .0003$ ).

In conclusion, the statistical measurements used in this study show that there is a significant relationship between peer mentoring and student satisfaction with their institution of learning after a peer mentoring intervention was implemented.

Another study by Ibáñez García et al. (2020), sought to find out the degree of satisfaction the participants in two university high school mentorship programs in Spain experienced. The participants were gifted and talented high school students (the mentees), their university mentors, and university members of a Technical Research Team (TRT). The universities running the program were the GuiaMe-AC-UMA and the Amenturate. The mentee population consisted of 130 high school students between the ages of 13 to 18 years (80 boys, 50 girls) in the GuiaME-AC-UMA program and 41 high school students between the ages of 11 to 16 years (25 boys, 16 girls) in the Amenturate program resulting in a total sample population of 171 mentees.

The measurement instruments consisted of three forms of a Likert-type scale questionnaire for which a total sample of 657 was completed: 43 by mentors, 314 by mentees, and 43 by the research technical team in the GuiaMe-AC-UMA program and 27 by mentors, 203 by mentees, and 27 from the technical research team in the Amenturate Program. The GuiaME-AC-UMA program conducted 43 workshops and the Amenturate program conducted 27 workshops for a combined total of 70 workshops. The study participants (mentors, mentees, and TRTs) voluntarily participated in one or more of the mentoring programs so the sample is considered incidental.

The results showed that there was no significant difference in satisfaction levels between

the two programs ( $U = 50447$ ;  $p = .95$ ), GuiaME-AC-UMA program ( $M = 3.73$ ;  $dt = 0.50$ ) and the Amenturate Program ( $M = 3.74$ ;  $dt = 0.46$ ). In both programs, the highest satisfaction scores were reported in sequential order first by the TRTs, followed by the mentees, and then by the mentors. No significant difference in satisfaction levels was reported among all three groups of participants in either program ( $p > .01$ ).

To determine which items in the questionnaire correlated more closely to satisfaction levels reported by mentees, a criterion analysis was employed. The results indicated that with respect to the satisfaction levels with the workshops, mentees mostly valued the teaching style of their mentors. For GuiaME-AC-UMC, this was indicated by their responses to item #17 “The mentor has managed to maintain interest and adapt the session based on our requests” ( $r = .50$ ,  $p < .01$ ). For general satisfaction with the program, item #19 “The mentor encouraged our participation during the development of the workshop” ( $r = .463$ ,  $p < .01$ ) and item 10 “The mentor stimulated our curiosity through unstructured, discovery, or demonstration activities” ( $r = .405$ ;  $p < .01$ ) again show that mentees had high level of satisfaction for their mentors and for the programme.

With respect to age and gender as examined by means contrasts test, no significant differences were found for gender among any of the items in either program ( $p > .001$ ). Neither were any significant differences found according to age in any of the GuiaMe-AC-UMC items tested ( $M = 15.06$  years;  $dt = 1.20$ ). In contrast for the younger Amenturate participants ( $M = 13.04$  years;  $dt = 1.41$ ), item 1 “I will be able to apply the knowledge acquired in Secondary School, in my life” a  $p < 0.01$  was reported indicating that these mentees had lower levels of satisfaction for the perceived helpfulness of the programme to their future academic life.

Larson et al. (2020) explored the impacts of mentoring on 3 attributes (altruism, diligence, and student leadership) among 68 high school juniors and seniors who served as

mentors to first-year high school students. Each mentor was paired with five mentees. A mentor leadership training intervention was applied prior to the mentors beginning their mentorship and then pre-and post-test analyses were done using a paired t-test which compared repeated test data from the mentors to determine any statistically significant growth in the selected attributes.

Three hypotheses were tested: (1) mentoring would increase mentors' altruism; (2) mentoring would increase mentors' diligence; and (3) mentoring would increase mentors' perception of their leadership skills. The instrumentation used in the study consisted of three self-assessment questionnaires and a demographic survey. The questionnaires sought to measure leadership efficacy, altruistic behavior, and diligence.

The study reported unexpected pre-and post-test results for altruism ( $t(50) = 4.870, p \leq .000, d = .34$ ) thus indicating a significant decrease in this attribute among the mentors between pretest ( $M = 15.6$ ) and post-test ( $M = 13$ ). These findings did not support the first hypothesis.

The pre-and post-test means for diligence ( $t(50) = 1.983, p = .053, d = .34$ ) indicated that there were no significant differences between the pre-test ( $M = 13.3$ ) and post-test scores ( $M = 12.8$ ). Put differently, there was no growth in the attribute of diligence among the student mentors. These results nullified the second hypothesis.

The test results for the leadership pre-test ( $t(50) = 9.184, p \leq .000, d = 1.57$ ), and post-test ( $t(50) = 10.185, p \leq .000, d = 1.75$ ) reported a significant increase between pretest ( $M = 35.6, SD = 3.2$ ) and post-test ( $M = 40.4, SD = 3.4$ ) in this attribute among the mentors. These results support hypothesis 3.

In conclusion, the only factor that had significantly increased was mentors' perceptions of their leadership skills after participation in the intervention of mentoring program.

## Mentoring and High School Intention Completion

There is a dearth of research on the influence of mentorship on high school intention completion. Rather, most studies have focused on the impact of mentoring on persistence among college undergraduates and particularly on first-year students. The leitmotif of these studies indicates that persistence intention is stronger among mentored students than among non-mentored students (Anderson et al., 2019; Garza et al., 2014; Hernández et.al., 2017).

A retrospective study spanning 12 years conducted by Anderson et al. (2019) examined an internship program that paired undergraduates with recent post-graduates in STEM mentoring program. The results demonstrated that the mentorship had a two-fold benefit in that, it not only produced a group of individuals who persisted in science careers, but these professionals also exhibited persistence in mentoring budding younger scientists.

Similar findings were garnered from an experimental study by Hernández et al. (2017) who investigated whether there were benefits of mentorship on first- and second-year females on a trajectory to scientific careers, particularly in environmental sciences. These researchers concluded that mentoring support from faculty members fortified the mentees' motivation, scientific identity, and persistence intentions in science career pathways. These indications are supported by the research of Hu and Ma (2010), who studied whether college mentors and student engagement in mentoring varied according to mentor and institutional characteristics as well as the relationships between mentor assignment and different aspects of The Washington State Achievers Program (WSA). The results of their investigation led them to conclude that mentored students had a higher probability of persistence in college than their non-mentored peers. Moreover, the probability of persistence was strengthened by the extent to which the mentees sought support from their mentors and by their perceived positivity of experiences with their mentors.

## **School Climate**

School climate has been defined as the level of safety for learning that a school provides. This includes the actual physical environment, the kinds of human interactions and relationships that occur as well as the shared mission and vision of the institution and participation in that vision by all relevant stakeholders (Cohen et al., 2009). Others conceptualize it as the school's atmosphere for learning (Suldo et al., 2012) and view it as including the feelings students have about the school and whether it is a place where learning can occur. A positive school climate makes a school a place where both staff and students feel comfortable spending a substantial portion of their time. In summary, it is a good place to be (Suldo et al., 2012).

Other researchers using have identified five key school climate dimensions and measurement tools: (a) order, safety, and discipline; (b) academic outcomes, (c) social relationships; (d) school facilities; and (e) school connectedness (Zullig et al., 2010). Later research has added peer relations, parental involvement, sharing of resources, and fairness as important dimensions of school climate (Suldo et al., 2012). A combination of instruments using these dimensions of the school climate construct has yielded results which show that student satisfaction is significantly related to student perception about school climate and that this relationship varies in positivity according to how much students like or dislike their school experiences (Zullig et al., 2010). Research has also made clear which school climate variables were more important to student satisfaction. It was found that these are Academic Support, Positive Student-Teacher Relationships, Order and discipline, School Connectedness, and Academic satisfaction (Zullig et al., 2010).

Previous research among American and Japanese adolescent students have corroborated these findings. According to Ito and Smith (2006), a positive school climate where students feel secure, respected, nurtured, and supported was the single best predictor of school satisfaction

for both U.S. and Japanese adolescents. Harmonious and respectful reciprocal relationships between teachers and students were the second most significant predictor of school satisfaction. Educational methodologies that emphasize high expectations and a nurturing and supportive school climate are especially important to increasing student satisfaction among U.S. adolescents (Ito & Smith, 2006). Among middle school students, peer relationships and positive teacher-student relationships emerge as the most notable predictors of student life satisfaction (Suldo et al., 2012).

Reporting on the relationship between school climate and high school intention completion, Jia et al. (2016) found that an authoritative school climate characterized by supportive teachers and an emphasis on high expectations were associated with reduced attrition rates.

Other researchers report that school climate is a significant factor impacting success among boys of color. In one study, school climate emerged as a perceived barrier to success among this subset of students. The study also found that poor school climate had a more adverse effect on Black and Latino students resulting in higher dropout rates among them than among their white counterparts (Liang et al., 2020). In a similar vane, Buckman et al. (2021) state that school climate plays a crucial function in the decision-making process of marginalized students' decision to drop out of school. Yet another study revealed that students who attend schools with a safe and orderly school climate were more likely to remain engaged in their studies and related activities and to graduate (Kotok et al., 2016). In contrast, negative school climate factors such as a lack of supportive teachers and students' perception of unjust and unfair disciplinary systems are linked to higher attrition rates (Wehlage & Rutter, 2011).

There is also consensus that school climate plays a pivotal role in the learning environment of schools and their educational outcomes, in particular student achievement. One

study which investigated school climate and academic achievement revealed that school climate influenced academic achievement and that this in turn led to increased graduation rates (Buckman et al., 2021). School climate has also been found to be a consistent predictor of ACT scores (Back et al., 2016) and high school completion (Buckman et al., 2021).

### School Climate and Student Satisfaction

A study by Daily et al. (2020) purposed to explore the relationships if any between a positive school climate, high school satisfaction, absenteeism, and academic performance. The researchers used mediated path analysis to explore the relationships among the variables as pertaining to a clustered sample of 6839 middle school and 7470 high school students, a total of 14,309 participants drawn from 26 West Virginia Schools in the USA. The demographics of the middle school students consisted of 49% females of whom 82% were Caucasian and among the high school participants, 51% were female of whom 85% were Caucasians.

The instrumentation utilized consisted of seven self-reported questionnaires ranging from 1 item to 20 items each. Descriptive analyses including counts, means, standard deviations, and scale reliability were applied using SAS 9.4 calculations. In addition, mediated path analyses were carried out using an application called Mplus 8.0 to determine direct and indirect correlations between school climate, school satisfaction, absences, and academic grades. Covariate inclusions were students' biological gender, family structure, and maternal education. Various statistical anomalies with robust standard errors such as non-normality and non-independence of participants clustered in schools were accounted for by utilization of the complex option in the Mplus 8.0 application and a technique called Monte Carlo integration was employed to manage missing values on the mediator variables.

Other analyses employed by the researchers included binary and ordinal probity

regression ( $\beta$ ), multiple linear regression, proportional odds, standardized regression coefficients, deviance statistic (-2LL), Akaike Information criteria (AIC), and Bayesian Information Criteria (BIC). Statistical significance was calculated with an alpha level of .05.

The results reported indicate that absenteeism among the participants was mainly due to illness (47% among high school students, 49.8% among middle school students) in contrast to absences by skipping school (15% among high school students, 6% among middle school students).

With respect to student perceptions of school climate, it was found that middle school students' perceptions were slightly positive with SD ranging from 3.5 ( $SD = 0.9$ ) for positive teacher-student relationships to 3.7 ( $SD = 0.9$ ) for student engagement. Reliability scores for all of the school climate sub-scales were acceptable for both middle and high school students ( $\alpha = .88 - .94$ ). This was confirmed by good factor analysis fits (middle school: CFI = .98, SRMR = .02; high school: CFI = .98, SRMR = .02).

Results also indicated that most students had a high degree of satisfaction with school [Middle school 3.7 ( $SD = 1.2$ ) and high school students 3= .4 ( $SD = 1.2$ )]. This was again confirmed by acceptable reliability scores for the school satisfaction scale among both categories of students ( $\alpha = .87 - .88$ ) and very strong factor analysis measurement fits (middle school: CFI = .99, SRMR = .01; high school: CFI = .099, SRMR = .02).

The statistical tools used all confirm that there are negative correlations between skipping school and academic grades for both middle and high school students (Middle school:  $\beta = -.41$  to  $-.043$ ; High school: ( $\beta = -.46$  to  $-.44$ ); between school satisfaction and skipping school (Middle school:  $\beta = -.17$  to  $-.20$ ; High school:  $-.20$  to  $-.19$ ) as well as a negative relationship between missing school due to illness and academic grades (Middle school:  $\beta = -$

.23 to -.25; High school:  $\beta = -.27$  to  $-.26$ ). There is also a negative relationship between school climate and skipping school (Middle school: ( $\beta = -.23$  to  $-.30$ ; High school:  $\beta = -.15$  to  $-.11$ ).

In contrast, the statistical analyses report positive relationships between school satisfaction and academic grades (Middle school:  $\beta = .18$ ; High school:  $\beta = .16$  to  $.18$ ); between school climate and academic grades (Middle school:  $\beta = .08$  –  $.11$ ; High school:  $\beta = .06$  to  $.11$ ); and between school climate and school satisfaction (Middle school:  $\beta = .38$  to  $.41$ ; High school:  $\beta = .36$  to  $.41$ ).

In conclusion, the results of this study suggest that student's absenteeism for whatever reason, negatively impacts their academic performance, their perception of school satisfaction, and school climate. This is in keeping with the bulk of research in this area. Moreover, missing school due to illness seems to be more problematic than missing school by skipping among both middle school and high school students. The findings of this study also suggest that students who have a positive perception of the school climate and who are satisfied with the school are less likely to have problems of chronic absenteeism and academic failure. It also seems that perceptions of a positive school climate are more impactful in reducing absenteeism among middle school students than among high school students whereas satisfaction with school is more of a positive impact on high school students than on middle school students.

An Australian-based study by Aldridge et al. (2020) sought to find out if there was any significant relationship between school climate and student life satisfaction with bullying and resilience as mediating factors. The participants for the study were 6,120 voluntary students from 17 non-randomly selected coeducational high schools (eight public and nine private) drawn from the metropolitan areas of Perth, Western Australia and Adelaide, South Australia.

The instruments utilized in this study consisted of “The What’s Happening in This School?” (WHITS) school climate student perception questionnaire which was modified by the

researchers for this study. It covers six dimensions of school climate, namely (a) teacher support, (b) peer connectedness, (c) school connectedness, (d) affirming diversity, (e) rule clarity, and (f) reporting and seeking help. A modified self-report resilience scale was used to assess students' perception of resilience. Bullying was captured by a modified version of Bandyopadhyay et al. (2009) self-report scale and life satisfaction was measured by a modified version of Diener's (2013) Life Satisfaction Survey. Four hypotheses were proposed and tested. These were: (a) Relationships between school climate and resilience; (b) Relationships between school climate and bully victimization; (c) Relationships between school climate and life satisfaction; and (d) Relationships between life satisfaction and students' resilience and experiences of bullying.

Data analysis was done by structural equation modeling (SEM) using AMOS version 22. Confirmatory data analysis was employed to support the reliability and validity of the SEM. The overall model fit was determined by the Bollen-Stine bootstrap method to be acceptable ( $\chi^2/df = 1.30$ ; TLI = .96; CFI = .96; GFI = .93; AGFI = .93; RMSEA = .034; SRMR = .036;  $p = .001$ ).

Results for hypothesis 1 (relationships between school climate and resilience) found that there was a significant positive relationship between the resilience aspect of school climate at four levels: peer connectedness ( $\beta = .19$ ;  $p < .001$ ), school connectedness ( $\beta = .27$ ,  $p < .001$ ), rule clarity ( $\beta = .15$ ;  $p < .001$ ) and reporting and seeking help ( $\beta = .12$ ;  $p < .001$ ). These statistics lead the researchers to conclude that the more positive students perceive their school climate to be, the more they self-report as being resilient.

With respect to hypothesis 2 (relationships between school climate and bully victimization), it was found that there is a negative correlation between three aspects of school climate and perception of bully victimization. These aspects of school climate are more teacher

support ( $\beta = -.006, p < .01$ ); school connectedness ( $\beta = -.42, p < .001$ ); and rule clarity ( $\beta = .05, p < .05$ ). These results prompted the investigators to conclude that the more positive students perceive their school climate, the less they report themselves as victims of bullying.

The statistical findings for hypothesis 3 (relationships between school climate and life satisfaction) show positive correlations between 3 aspects of school climate and students' life satisfaction. These are school connectedness ( $\beta = .37, p < .001$ ); reporting and seeking help ( $\beta = .05, p < .001$ ) and affirming diversity ( $\beta = .08, p < .001$ ). The conclusion here is that when students perceive their school climate to be healthy, they feel more connected to the institution, more safe, more willing to seek help, and are generally more satisfied with school wide order and discipline.

For hypothesis 4 (relationships between life satisfaction and students' resilience and experiences of bullying), it was found that only relationship between resilience and life satisfaction showed any significant positive correlation ( $\beta = .36, p < .001$ ). Hence the conclusion that students who perceive themselves as being resilient also feel more satisfied with life. There was a small statistically significant negative correlation between bully victimization and life satisfaction ( $\beta = -.02$ ). Overall, the conclusion of the study was that school climate is directly and indirectly associated with students' life satisfaction by the mediating effect of resilience.

Another study by Lombardi et al. (2019) investigated the relationships between school climate as perceived by students, students' personal traits and literary skills, and students' perception of well-being and student engagement. The participants consisted of 159 tenth -grade high school students pooled from three schools in North Italy during the 2018-2019 school year.

Participants completed questionnaires and certain tests as measurements of the independent and dependent variables under investigation. Literacy skills were evaluated via various reading tests including decoding ability by the DDE-2 Sartori test, reading speed,

reading accuracy, and reading comprehension by the Advanced MT 2, tests. Spelling accuracy was measured by the Advanced MT 3, dictation test. Personality traits were evaluated by the Italian adaptation of the Big Five Inventory (Soto & John, 2017), a questionnaire consisting of 44 items covering five trait dimensions. Participants also completed the 20 item USA Georgia School Climate Survey (GSCS) developed by the Georgia State Department of Education (GADOE) in conjunction with the Georgia Department of Public Health and Georgia State University. Well-being experience was measured by the completion of the Comprehensive Inventory of Thriving (CIT) (Su et al., 2014) a 54-item questionnaire. Student engagement was assessed by the Italian adaptation of the Student Engagement Scale which evaluated 3 dimensions of engagement cognitive, behavioral, and affective engagement.

Data was analyzed using normal Italian standardized scores for literacy tests. The reliability of the various questionnaires was tested by through the Cronbach's alpha and their descriptive statistics computed. Analysis using Pearson's coefficients were computed for all measures to determine the relationships among them. Also, a linear regression analysis was performed on each dimension of the student engagement scale for a total of 3 linear regression analyses for this scale as well as on the four independent variables of personality traits, literacy skills, well-being, and school climate. Lastly, M-plus 7.11 application was used to conduct a path analysis (SEM) to determine the direct and indirect effects individual traits, school climate and well-being on student engagement.

Results showed that good text comprehension was positively correlated with Consciousness ( $r = .20$ ), and Openness to experience ( $r = .172$ ), and with a positive school climate ( $r = .21$ ) and with a high level of engagement in learning activities (Affective:  $r = .179$ ; Behavior:  $r = .169$ ). Neuroticism and accuracy in reading were also highly correlational ( $r = .21$ ). In conclusion, there were significant, albeit weak, correlations between personality traits,

participation in learning activities, and students' perception of school climate.

### School Climate and High School Intention Completion

In a study by Buckman et al. (2021), it was investigated whether there is a correlation between school climate and graduation rates for public high schools in the state of Georgia when controls were established for potential covariates. The population for this study was 470 students in 2017. To qualify to participate the schools had to meet certain criteria established by the researchers. As a result, only 277 schools qualified for analysis.

The instrument used to capture the data for this study consisted of the “School Climate Star Rating” which is composed of an aggregate score of school-wide attendance record, surveys, student discipline data, and learning environment. Three surveys made up the survey portion of the instrument, namely the Georgia School Personnel Survey (GSPS), the Georgia parent Survey (GPS), and GSHS2.0. Together the three surveys sought to measure student perceptions, parent perceptions, and personnel perceptions and cover all established 13 dimensions of school climate. To determine the relationship between school climate and graduation rates, an ordinary least squares regression was used. The results showed positive school climate increased graduation rates ( $\beta = .164, p < .01$ ).

Another study by Perzigian and Braun (2020) investigated the relationship between school climate ratings by students and three student outcomes, namely: (a) number of credits earned in one semester, (b) number of days of attendance in one school year, and (c) number of referrals for discipline in one school year. The research also examined whether there were significant differences in student school climate ratings across and student outcomes among three different types of alternative schools and traditional schools. The types of alternative schools were innovative, academic remediation-focused, and behavior-focused. The participant

population consisted of a total of 12,427 students from 48 different schools. The researchers hypothesized that there is a significant relationship between student school climate ratings and 3 selected student outcomes irrespective of school type.

The primary instrument used in this study was a District School Climate Survey which covers the four established dimensions of school climate according to various school climate literature: rigor, safety, environment, and governance. Other instrumentation consisted of de-identified district student-level data in the form of attendance records, credits earned, and incident/discipline referrals. Three multiple regression analyses were applied to student school climate ratings and outcome data aggregated to school type. Schools were treated as cases in the analyses.

The results of the study showed that there was no significant relationship between school climate ratings and attendance ( $t(43) = 1.183, p = .114$ ). There was however a significant relationship between school type and attendance ( $F(3, 43) = 8.019, p < .001$ ). The relationship between school climate ratings and incident referrals varied across schools ( $r^2 = 13.75\%$ ). This variance was confirmed by one of the beta weights related to one of the interaction terms ( $\beta = 6.722, t = 3.527, p < .001$ ). The results also showed that there was a significant variance in the relationship between school climate ratings and credits earned across school types ( $r^2 = 11.2\%$ ) for the contribution of the climate by school type interaction effect.

Based on the findings of this study, the researchers concluded that there was no significant relationship between student school climate ratings and the outcomes of attendance, incident referrals, and credits earned. Put differently, school climate ratings did not predict student outcomes across all schools in the research sample, so the proposed hypothesis was rejected.

Hand (2019) conducted a study on the relationship between school climate and

graduation rates among students from 125 high schools in the state of Georgia, USA. Cohen's power analysis was used to determine that a good sample size would be 122 schools and an additional three schools were added by the researcher bringing the total study population to 125 of 389 public high schools in Georgia. The participant schools were randomly selected.

The instrument applied in this study was Georgia's Star Rating for School Climate (SRSC) calculation which consists of embedded surveys of student discipline data, and a safe learning environment as well school-wide attendance record. The embedded surveys included the Georgia Student Health Survey (GHS2.0), the Georgia Parent Survey (GPS), and the Georgia School Personnel Survey (GSPS) all of which are anonymous, state-wide questionnaires developed by the Georgia Department of Education in conjunction with the Georgia Department of Public health, and Georgia State University (Sweet, 2018).

Data analysis for this study utilized an ordinary least squares multiple regression method using the most current versions of SPSS and Microsoft Excel applications, and the minimum level of statistical significance was established ( $p < .05$ ). The main hypothesis for this investigation begged the question: Is there a relationship between school climate and graduation rates for public high schools in the state of Georgia when potential covariates have been controlled? For this investigation, when potential covariates have been controlled, the tested null hypothesis reveals that there is no significant relationship between public high school ratings and graduation rates in Georgia. Relationships between school climate and other variables were also examined including 9<sup>th</sup> grade End of Course (EOC) scores, Algebra EOC scores, size of the population, socioeconomic status, and percentage of the white population among others.

The results found that there was a significant positive relationship between school climate and graduation rates ( $r = .373, p < .01$ ). This result supports the main hypothesis and

nullifies (does not support) the null hypothesis. In addition, the results showed that there are other positive correlations between school climate and other variables including 9<sup>th</sup> Grade Literature EOC pass percentages ( $r = .639, p < .01$ ); between school climate and Algebra EOC pass percentages ( $r = .655, p < .01$ ), and between school climate and percentage of white student population ( $r = .500, p < .01$ ); and between school climate and size of the student population ( $r = .311, p < .01$ ).

In conclusion, according to this study, a perceived healthy school climate positively influences graduation rates among students at Georgia's public high schools.

### **Self-Efficacy**

Self-efficacy is defined as an individual's belief in his or her own ability to organize and implement action to achieve a desired outcome (Bandura, 1977). According to Dewitz and Walsh (2002), the relationship between self-efficacy and student satisfaction is cardinal as evidenced by the strong correlation between self-efficacy and college turnover rates among students. Students with lower self-efficacy scores tend to drop out of college earlier and at faster rates than students with higher self-efficacy scores. Other relevant studies have shown that student dissatisfaction is strongly associated with higher school turnover rates (Hellman & Harbeck, 1997). Thus, if interventions can be made to increase student satisfaction, it may be possible to reduce school attrition (Dewitz & Walsh, 2002).

Student self-efficacy is also important because it bolsters student achievement, impacts student aspirations, and nurtures student optimism and overall successful school outcomes resulting in healthy societies (Boyer, 2013). It has also been found that high self-efficacy heightens the motivation of self-regulated learners to take even more ownership of their learning (to be more self-directed learners (Zimmerman, 2002). According to Bartels and Magun-

Jackson (2009), when a student perceives that the learning challenge is reasonable, and the learning outcome is valuable, the inner desire (self-efficacy) for mastery is motivated. Therefore, if students are provided more opportunities for small incremental successes that promote an awareness of their self-efficacy, then they are likely to become more engaged in striving for academic success and this leads to student satisfaction.

According to Domenech-Betoret et al. (2017), there is a strong correlation between self-efficacy and student satisfaction because one's beliefs about what one can or cannot do influences the degree of stress or anxiety the individual experiences as they engage in learning activities. A strong sense of self efficacy, a feeling or belief that a task can be accomplished, reduces this stress or anxiety, and promotes well-being or satisfaction. Another study concluded that student satisfaction is related to improved academic performance and the decision to take additional classes (Booker & Rebman, 2005). More specifically, satisfaction at school is fundamental for the judgments that students make of their own general well-being (Cummins & Tomy, 2011).

Researchers are largely agreed that students who do not like school are those whose academic performance is poor, exhibit higher absenteeism, and have the greatest risk of dropping out (Simonsen & Rundmo, 2020). These authors also found that a large percentage of young people drop out of school because they view formal education as irrelevant. Several studies also reveal that self-efficacy is highly correlated with and is a strong predictor of achievement outcomes, student well-being, and school satisfaction (Brown et al., 2019; Schunk & Mullen, 2013). Students with high self-efficacy tend to experience more school satisfaction than those with lower self-efficacy, tend to be more engaged in school, and less likely to drop out (Simonsen & Rundmo, 2020).

One study by Brown et al. (2019) investigated the relationships between academic

performance and general self-efficacy, dropout status (non-leavers, temporary-leavers, and permanent-leavers), and school context. Results revealed that there were significant differences in academic self-efficacy by dropout status (both categories of dropouts exhibited lower academic self-efficacy than non-dropouts) though there were fewer differences in these measures between temporary and permanent dropouts. In addition, general self-efficacy was higher among dropouts than academic self-efficacy and academic self-efficacy was a more significant predictor of dropout rates than general self-efficacy among dropouts and non-dropouts. Statistical results also showed that among temporary school dropouts, there was a significantly higher general self-efficacy than among non-dropouts. Moreover, there was a significant statistical correlation between more caring relationships with adults and academic self-efficacy. This indicates the importance of these factors in reducing attrition.

There is also consensus among a large body of researchers that high school dropouts generally report lower grades, and were more likely to have been retained, suspended, expelled, and placed in SPED programs than non-dropouts (Brown et al., 2019; Rumberger & Rotermund, 2012). Additionally, both temporary and permanent school dropouts reported fewer positive views than non-dropouts with respect to school environment measures. This finding is consistent with prior, largely qualitative, research which confirm that youth who drop out of school or are at-risk for leaving high school often have negative views of the school environment and staff (Brown et. al, 2019).

#### Student Self-Efficacy and High School Satisfaction

According to Simonsen and Rundmo (2020), the chief aim of their study was to determine if there was any association between high school students' school identification and self-efficacy. The voluntary participants were 794, with 16-year-old high school freshmen at 3

upper secondary schools in Norway. The population sample consisted of 385 females, and 409 males drawn from both the general studies programme and the vocational programme. The instrumentation utilized consisted of a self-completion questionnaire with 10 subscales drawn from or developed from other established questionnaires and the researchers' established controls for gender, school curriculum, and parental education level.

Statistical analysis of data included the utilization of the following measures: (a) descriptive statistics such as mean and standard deviation; (b) the use of multivariate analysis of covariance (MANCOVA) to determine differences in school satisfaction impacted by gender, parents' educational level, and the educational program of the school; (c) and Principal component analysis (PCA) to analyse the dimensional structure of the 6 identification measurements and multiple group memberships measurements. To determine the dimensional structure of the self - efficacy variable, Confirmatory Factor Analysis (CFA) was employed. Path Analysis was used to determine to compare the strength of direct and indirect correlations between the four main variables and the fitness of the models was determined by the Root Mean Square Error of Approximation (RMSEA); the Comparative Fit Index (CFI); Goodness of Fit Index (GFI), the Standardized Root Mean Square Residual (SRMR); and the  $\chi^2/df$  ratio.

The results of the study indicate that gender made a significant difference in students' level of school satisfaction (Wilks'  $\lambda = .96, p < .01$ ). So too did father's educational level (Wilk's  $\lambda = .92, p < .01$ ), and education programme (Wilk's  $\lambda = .97, p < .05$ ). There was no significant difference in school satisfaction as relates to mother's educational level.

With respect to School identification and multiple group memberships, the reliability and internal consistency of the were acceptable for all seven measurements ( $\chi^2/df$  - ratio = 3.91, RMSEA = .068, CFI = .97, GFI = .96, SRMR = .041). The internal reliability of the self-efficacy measurement was also satisfactory (four item instrument:  $\alpha = .774$ , 10 item instrument:  $\alpha = .891$ ).

In reference to the correlation between school identification and self-efficacy and their effect on school satisfaction, the results indicate that academic self-efficacy was found to be a strong predictor of high school satisfaction ( $\beta = .20, p < .001$ ), satisfaction with teachers ( $\beta = .11, p < .01$ ), and their teaching ( $\beta = .24, p < .001$ ). In contrast, general self-efficacy ( $\beta = .05$ ) was found to be an insignificant predictor.

The exogenous variables of multiple group membership (MGM), and the six measurements of school identification: Affective Identification with High-School (CAI-A); Cognitive Identification with High-School (CAI-C); Identification with Classmates (ICM); Identification with Teachers (TISI-T); Identification with Students (TISI-S); and Teacher's Social Identity Leadership (IL-T) were significant predictors of high school satisfaction ( $r^2 = .52, e_3 = .48$ ). Results also showed that the best predictors of high school satisfaction were affective identification with high-school ( $\beta = .38$ ) and identification with classmates ( $\beta = .28$ ).

A study by Domenech-Betoret et al. (2017) explored the relationships among students' academic self-efficacy, expectancy – value beliefs, teaching process satisfaction, and academic achievement. The participants were 797 Spanish high school students aged 12 to 17 years from 36 classes randomly selected from 3 schools. There were 404 males and 393 females. Twenty-three (23) of their teachers, 11 males and 12 females also participated in the study.

Four scales of measurement were applied. The Students' General Academic Self-Efficacy Scale (25 items) and the Expectancy-Value Belief Scale (13 items) were administered halfway through the term (1 item) and the Student Satisfaction of the Teaching Process Scale (5 items) and Academic Achievement scales were administered halfway through the third term (2 items). There were two hypotheses tested: (H1) Expectancy -value would play a mediatory role between self-efficacy and achievement, and (H2) Expectancy-value would play a mediatory role between self-efficacy and satisfaction. The hypotheses were statistically tested by the Structural

Equation Model (SEM) procedure.

The results showed that according to the fit indices values obtained from Model 1, academic self-efficacy had a significant positive effect on student academic achievement ( $\chi^2 = 194.52$ ;  $p = .000$ ,  $df = 34$ ; NNFI = .93; CFI = .95; GFI = .92; RMSEA = .078). Results also revealed that the path between academic self-efficacy and academic achievement was not direct according to the fit indices obtained from Model 2: ( $\chi^2 = 329.77$ ;  $p = .000$ ,  $df = 74$ ; NNFI = .92; CFI = .94; GFI = .94; RMSEA = .067). Combining the results from Models 1 and 2, the indication is that students' academic self- efficacy indirectly being mediated by expectancy - value beliefs.

The findings also indicated that academic self-efficacy had a significant effect on teaching process satisfaction ( $\chi^2 = 197.88$ ;  $p = .000$ ,  $df = 52$ ; NNFI = .926; CFI = .942; GFI = .959; RMSEA = .060). However, Model 2 optimized and retested showed that the path between academic self-efficacy and teaching satisfaction was not direct but also mediated by expectancy-value beliefs ( $\chi^2 = 343.17$ ;  $p = .000$ ,  $df = 100$ ; NNFI = .894; CFI = .912; RMSEA= .056). In conclusion, academic self-efficacy and the achievement/satisfaction relationship were mediated by students' expectancy -value beliefs.

Another study on the relationship between self-efficacy and student satisfaction by Prifti (2020) examined the efficacy of Learning management System (LMS) factors on student satisfaction. Participants were 375 students from the University of Tirana, Albania who were all enrolled in a blended learning course with an equal distribution of classes between in-person learning and online LMS- mediated learning.

It was hypothesized that platform accessibility, platform content, and critical thinking would each affect self-efficacy which would in turn impact course satisfaction. Students completed a post-course questionnaire created to collect information about the nature of the

blended course, the use of the LMS, students' perceptions and experiences, whether they had any previous online learning, and demographic data.

The investigators employed structural equation model (SEM) analysis to determine, if any, the correlational and regression relationships between the independent and dependent variables. Findings of the research showed that there was a strong, positive relationship between self-efficacy as pertains to the LMS blended course and student's satisfaction with their learning ( $CR = 9.577, p = .002$ ).

#### Student Self-Efficacy and High School Intention Completion

Like the field of research on mentorship and intention completion among high school students, there is a lack of research on self-efficacy and persistence among this category of students. However, researchers have explored many different models of college retention including sociological models which emphasize social support, understanding student backgrounds, institutional contexts, and student engagement among others (Baier et. al, 2016).

A study conducted by Wright et al. (2012) sought to understand if there is a relationship between self-efficacy in first-year college persistence and academic outcomes. The theoretical lens of social cognitive theory (SCCT) was applied to this quantitative experimental exploration and regression analyses were performed on the data collected from 401 freshmen participants. Controls were established for gender, ethnicity, high school, GPA, first-generation standing, and initial self-efficacy. The results for the 372 students who persisted through the first semester and earned a GPA, indicated that students with increased levels of college self-efficacy by the end of the first semester had a higher probability of persisting into the Spring semester and with positive academic outcomes. These results were obtained from a test of a full model with all predictors included compared to a constant-only model. Researchers further concluded that

college self-efficacy may be a crucial cognitive variable in college students' persistent decisions and their academic success.

Another study by Garza et al. (2014) utilized a mixed-methods (quantitative and qualitative) approach and purposed to identify and explore, and compare the relationships between resiliency, self-efficacy, and persistence among college students with a focus on first-generation and continued-generation Latino seniors. For the quantitative portion of the study, researchers employed a 25 items demographic questionnaire, which focused on investigating whether there were significant differences between the resiliency, self-efficacy, persistence, and retention variables. For the qualitative aspect, the researchers conducted interviews among final-year students. The interviews were focused on gathering information about university activities, retention factors, and personal experiences that supported them to persist in college up to that point in time.

The results showed that persistence means across all ethnicities for continued generation respondents was 27.25 and for Hispanic continued generation 28.81. For first-generation participants across ethnicities, the persistence means was 27.20, and for Hispanic respondents 27.00. For self-efficacy means across all ethnicities was 26.99 for continued generation participants, and 27.33 for the first generation. Among Hispanic continued-generation respondents, the mean was 27.41 for self-efficacy and 27.97 for first-generation Hispanic respondents. Overall, the researchers concluded that though there was no significant difference between resiliency, self-efficacy, and persistence between first-generation and continued-generation students across ethnicities nor between first-generation and continued-generation Hispanic participants, these factors are essential components of favourable student outcomes.

Baier et al. (2016) investigated the level of influence college self-efficacy, perceived mentorship, academic achievement, and socioeconomic status could potentially exert on college

intention completion by carrying out a comparative analysis of initial and end-of-first-semester self-reporting social-cognitive factors. The factors examined were perceived self-efficacy, mentorship, high school GPA scores, first-semester college GPA scores, ACT scores, and demographic characteristics. Analysis of data was done through the utilization of multiple regression techniques and MANOVA to determine the significance of the selected factors on persistence.

The results of the study showed that the best significant predictors of college persistence post-first semester of college were self-efficacy ( $\beta = .49, p < .001$ ) and mentorship ( $\beta = .30, p < .001$ ). In contrast ACT ( $\beta = .07$ ), high school GPA ( $\beta = -.03$ ), post-first semester GPA ( $\beta = -.13$ ) and socioeconomic factors ( $\beta = -.06$ ) had no significant influence on intention to persist.

In conclusion, though there is a scarcity of data on the relationship between high school self-efficacy and high school intention completion, the literature on these relationships among college students both at the undergraduate and graduate levels indicates that there is a positive association between self-efficacy and intention to persist in school (Anderson et al., 2019; Baier et al., 2016; Hernández et al., 2017).

### **Objective of the Study**

This research seeks to analyse how mentorship as perceived by students, school climate as perceived by students, family support as perceived by students, and student self-efficacy are predictors of student satisfaction and high school completion intention at Boston Adult Technical Academy, an Alternative High School in Boston, Massachusetts, USA.

### **Hypotheses**

The hypothesis of this research declares the following:

H1. The level of mentoring perceived, school climate perceived, and student self-

efficacy are significant predictors of student satisfaction as perceived by students at Boston Adult Technical Academy, in 2021-2022 academic year.

H2. The level of mentoring perceived, school climate perceived, and student self-efficacy are significant predictors of high school completion intention as perceived by students at Boston Adult Technical Academy, in 2021-2022 academic year.

H3. The level of student satisfaction is predictor of high school completion intention as perceived by students at Boston Adult Technical Academy, in 2021-2022 academic year.

### **Justification**

There is a paucity of data about the factors that contribute to high school satisfaction and intention to complete high school among adult learners and particularly about adult high school learners in the city of Boston. This research will offer insight into adult learners needs and add to empirical data collection in this area thus reducing the lack of quantitative evidence on this subject.

### **Importance**

This research study has the potential to influence decision-making in alternative high schools that cater to adult learners. The data that could be gathered from this type of study can potentially yield findings that help leaders to make school changes in allocation of resources, diversity in program choices, flexible scheduling, and enriched student support services that can increase student satisfaction and intention to complete high school for adult learners who deserve a second chance to attain a high school education. The results could improve outcomes for students at BATA and at similar alternative high schools within the Boston Public school district when the results are shared within the wider district.

## **Limitations**

Boston Adult Technical Academy is one of two alternative high schools in the Boston Public Schools District in Boston, Massachusetts. It caters to students beyond typical high school age with its student population ranging in age from 18 to 22 years. The student population is multiracial and multilingual with students coming from over 20 different countries and speaking some 35 different languages. Based on this multi-ethnic and multi-lingual population, the following observations are made:

1. It is recognized that these two factors of race and language and their inherent cultural, social, and economic intricacies could have a significant impact on the variables under investigation and that the researcher may not be able to control for all these complexities.
2. The sample size is small, and the researcher recognizes that to increase the validity of the study, she might have to get permission to include the study of the population at the second alternative high school in the Boston Public Schools district.
3. The researcher hopes that an analysis of demographic data will provide an insightful aspect of non-academic factors that might influence adult learners' participation in school.

## **Delimitations**

Some delimitations are presented in this investigation:

1. The population of young people between 18 and 22 years of age, will be drawn from the Boston Public Schools system and more specifically from Boston Adult Technical Academy, one district school within the Boston Public School System.
2. The study will be developed between the years 2020–2022.
3. The researcher recognizes the difficulties in focusing on only three predictor variables among a host of other factors that can influence student satisfaction and intention to complete

high school.

### **Problem Statement**

This study seeks to investigate the following: Are mentorship as perceived by students, school climate as perceived by students, and self-efficacy predictors of student satisfaction, and high school intention completion at Boston Adult Technical Academy, an Alternative High School in Boston, Massachusetts, USA?

### **Philosophical Background**

A worldview is a framework of which we make sense of the world. Everyone has a worldview derived from personal life experiences, as well as choices and decisions made along the way. It is an aerial philosophical perspective of the world, the lens through which we view our reality. It reflects answers to the fundamental questions of life such as questions about our origin, our ultimate destination, our purpose for existence, and what happens when we die.

It is reasonable therefore for a personal biblical worldview to be based on the following tenets of God's standards as documented in the Bible:

1. The Bible is the inherent word of God. It is Truth and Truth is God (John 1:1).
2. There is adherence to the Word of God because He is the absolute truth (John 1:1; Revelation 22:13).
3. God is the creator of the world and everything in it, animate and inanimate (Genesis 1:1).
4. All humans are created in God's image and hence have eternal value and worth (Genesis 1:26-27).
5. The world at creation was harmonious and perfect as the creator pronounced each day's products good or very good. There was harmony between humans, between humans and animals, humans and the ecosystem, humans and their Creator, and man was at peace with

himself (Genesis: 1-3).

6. Sin entered the world as our first parents (Adam and Eve) disobeyed God by eating the fruit from the forbidden tree thereby submitting themselves to the rulership of Satan (Romans 6:23).

7. All human beings are born with a sinful nature (Psalm 51:5; Romans 3:10, 23) and therefore we all need a saviour (Genesis 3:15, 2; Corinthians 5:21, Romans 5:12; John 3:16).

8. God will one day restore order and harmony to this world because His son, Jesus Christ came and died on Calvary's cross, thereby putting an end to sin and death (Acts 1:10-11; Revelation 1: 7; Ephesians 4:30; Revelation 1:8; Matthew 24: 44; Isaiah 65:17; Revelation 21:1).

9. Jesus, the savior of the world will come again and take all saved /redeemed people to live with Him forever (John 14:1-3).

For the Christian educator, these fundamental beliefs shape our thoughts and actions and undergird everything we say and do. According to Knight (1989), though other factors such as politics, socialization, culture, and economics impact education, the chief influence in the educational process, is the teacher's personal worldview and the educational institution's undergirding philosophy. He further postulates that only when the teacher understands their philosophy or worldview, and examines the implications it has for their pedagogy, will they be effective in reaching their personal goals and those of the institutions in which they teach. According to Knight's Law it is impossible for a person to arrive at their destination unless the individual knows where he/she is going. This implies that teachers and schools without a clear worldview will lose support and fail (Knight, 1989).

Moreover, if the teacher's worldview and the institution's worldview are incongruent, chaos will result and both participants will fail to achieve their goals unless there is a parting of ways. Chaos may be evidenced by teacher dissatisfaction, student's lack of performance, or

institutional anarchy among other factors.

Christian educators should therefore feel obligated to pass on good ethics, epistemology rooted in biblical truth, and godly aesthetics to the next generation. Their worldview should shape the academic content of what they teach, the methodologies they use for teaching, and the expectations they have for their students, their families, and the home-school community. Their biblical worldview should also guide how they interact with their students and their families, how they treat them, what they believe about them, and how they interact with their principals, supervisor, and colleagues.

Their belief in the inheritance of eternal life should cause them to educate their students in such a way that they not only excel in their academic pursuits, but also develop healthy social interactions, and become responsible and productive citizens locally and globally. Students should also be encouraged to develop and enjoy a personal salvific relationship with their creator and to nurture and practically live out values that fit them for eternal life. Salvation and works go hand in hand (Ephesians 2:8-9; James 2: 14-26). Though, this is a great challenge for the Christian educator teaching in a secular institution where there are many incongruences between the teacher's world view and the institution's world view, the eternal value of the soul must be superior in the Christian teacher's mode of operation and must be evidenced overtly and covertly. Christian educators must first ask God daily for wisdom to design lessons that nudge, and sometimes even coax the student to know Truth, otherwise, the teacher is a dismal failure. They must teach in a way that urges students to be thinkers and to seek truth for themselves in the academic content (in this educator's case biological science) that they teach. Students must be taught to critically analyse theories like evolution and its evidence presented to them and question if this is congruent with what they see and experience in the world around them and with their own worldview. They must question if what they believe about life and about

themselves is true or if there alternate and more wholesome explanations for what they experience. Christian teachers must teach in a way that they will one day hear from the master teacher Himself, “Well done thou good and faithful servant, enter into the joy of thy Lord” (Matthew 25:23).

In a world where humanistic, relativistic, and evolutionary worldviews abound and where the content resources that guide what students are taught, how they are taught, and why they are taught, all have a bent toward achieving materialistic goals and worldly success, the daily struggle for the Christian teacher with bible-based moral absolutes is how to teach the gospel of Christ in such an incongruent setting. This is especially made more difficult because in some countries one is forbidden by law from doing so. The question then is, how does the teacher lift Christ up to his students and colleagues in such a manner that God can draw them to Himself (John 12:32). Students must be given, through the delivery of content and their interactions with their teachers, every opportunity to know Christ and to desire Him, even though teachers cannot explicitly teach from the scriptures, as they would if they were in a Christian school. This consideration should be ever present in the mind of the Christian teacher as they plan lessons, pose questions, model wholesome behaviors, have daily interactions, and speak words of peace.

National, local, and individual crises are prime opportunities to reach out and try to offer words and actions of solace. When students or their loved ones are ill, they will often seek out their Christian teachers to pray for them and to give them advice on what to do in each situation. These types of interactions can only occur if teachers take time each school year to nurture caring relationships with their students and their families. Schools that institute family visits create a useful forum to get to know students and their families. These home visits provide an excellent opportunity for teachers to get to know their students and their families’ religious or

non-religious practices and to find the most appropriate connection to their worldviews. This can be useful as an entering wedge to share an alternative biblical worldview. Teachers should mingle with their students as one desiring their best interest and then look for ways to bid them to know Jesus, the Lord of this educator's life (White, 1892). Also, coming to the realization that truth anywhere is God's truth, will enable the formation of healthy working and social alliances with Christian colleagues and students of other denominations. Working cooperatively with these other denominations can help to build a certain transformative culture within the school by utilizing opportunities to pray with the students for others who are sick, need certain social interventions, and practical helps. This then creates further opportunities to share literature, broaden healthy social interactions, and share the love of Christ in practical and tangible ways.

The biblical worldview of an SDA educator should also impact his role as a researcher. The National Committee for Research Ethics in the Social Sciences and Humanities (NESH) has established certain guidelines that provide researchers and the research community with governance regarding research ethics (Dhakal, 2016; The Norwegian National Research Ethics Committees, 2022). These guidelines are to be observed both by the researcher and the institution to which that researcher is affiliated. The NESH guidelines contain over 46 obligations and responsibilities for conducting ethical research. These guidelines address issues of human dignity such as respect for individuals, groups, institutions, and the research community human dignity, respect for privacy and confidentiality, not harming human life, respect for privacy and family life, respect for the values and motives of others, respect for posthumous reputations, and protection of children among others. These ethical obligations are consistent with the SDA biblical worldview, which holds that human life has inestimable eternal value since we are all created in the image of an eternal God. In fact, it could be argued that the

principles of the SDA worldview go beyond the NESH ethical guidelines with respect to human dignity and worth since SDAs believe we are answerable to an eternal God who regards each human being with such love and inestimable worth that He says He knows very the number of hairs upon the head of every human being (Luke 12:7). The laws of God, the undergirding principles of a biblical worldview, constrain the Christian educator to be careful to safeguard the privacy, confidentiality, and the preservation of human life including the spiritual, mental, emotional, and physical health of the participants in their research. Though as researcher teachers are free to explore any topic of interest, they must respect that there are limitations to this freedom both at the individual and societal levels. They must be respectful of the cultural mores and values of the various ethnicities that comprise my research population, and of the institutions and the administration of the institutions that will be involved in the research process. They must obtain the necessary permission from the individuals and institutions that give them the right to conduct the research.

A fundamental tenet of the SDA worldview is that of truthfulness because they serve a God who values truth because He is the absolute Truth. Hence, the SDA worldview requires the exercise of utmost integrity in data gathering, in data sharing, and in recognizing and respecting the ownership of intellectual property. The SDA researcher must therefore employ good citation practices and be accountable and responsible in reporting results to all research participants (The Norwegian National Research Ethics Committees, 2022).

The SDA biblical worldview will also inform the philosophical bases of the methodologies that the researcher chooses to employ in conducting research. According to Vasquez (2013), one's philosophical stance in conducting research provides a grounding on the perceptual perspective of the researcher. It guides him/her on what to look for and what methodology to use to capture it. He further posits that there are three main philosophical bases

that impact one's methodology in conducting research, namely: ontology, axiology, and epistemology.

This fits well with the SDA biblical worldview in the sense that a teacher cannot know a student, or his/her metacognitive struggles, or familial and social circumstances perfectly. In fact, the teacher doesn't even know his/her own reality perfectly for as 1 Corinthians 13:12 states "For now we see through a glass, darkly; but then face-to-face: now I know in part; but then shall I know even as also I am known" (New King James Version, NKJV). However, we try to learn sufficient significant information about our students as can help us to have successful learning and teaching interactions.

While it is convenient and perhaps easier to use a quantitative methodological approach to conduct research, and though the researcher may assign numerical values to social constructs such as family dynamics, and economic status, there is no research method that can completely capture all of the multiple interrelationships among constructs such as religious values, efficacy, school climate, mentorships, and other factors to measure or quantify their impact on student satisfaction and student intention to persist in school. The results will not capture every aspect of meaning and knowledge pertaining to student performance or school attrition. Moreover, there will always be qualitative nuances via the interpretation that the researcher will make of the numerical data collected because of the worldview lenses through which we examine them even though we strive to remain neutral in the interpretative process. The constructs of measurement are themselves qualitative though given numerical values in the quantitative approach to research. For this reason, some researchers argue that qualitative research yields a better interpretation of meaning than quantitative research because the researcher is taking multiple perspectives from different informants and amalgamating them with her/his own worldview (Clegg & Slife, 2009).

According to Paley (1997) if the researcher accepts the fact that his/her worldview colors his/her objectivity and is guided by the principle of striving to remain neutral, quantitative research can have a very high degree of objectivity. Thus, in this educator's biblical worldview, there is justification for including both types of methodology in the conduct of research. By taking a more quantitative research approach to data gathering and by following the responsibilities and ethical guidelines of research should result in the unveiling of the truth of mentorship, self-efficacy, and school climate and their impact on student satisfaction and student intention to persist in school within the context of BATA.

Epistemology is the theory of awareness that outlines the form of knowledge that is probable and reasonable (Crotty, 1998) and axiology is the theory of values (Oduor, 2010). An SDA biblical worldview would cause the teacher to want to explore what factors can support his/her students to persist in school and accomplish the academic goals that can lead them to sustainable career pathways. This will accrue from a belief that the students are valuable, of eternal worth, and have much to contribute to the well-being of themselves, their families, their communities, and the world. The results of research, properly conducted, will yield information that can help schools administration to establish partnerships with local colleges and universities to develop, plan and implement various mentorship and work-study programs that will help students to persist in school by simultaneously preparing them for both academic success and job readiness. This dual preparation of the students is knowledge that is reasonable, probable, and valuable.

In summary this educator's biblical worldview is founded on the principles of the eternal word of God and it constrains this teacher and researcher to value human beings and care for them with a view for their present as well as their eternal destiny. It compels this teacher to operate within a framework of love, compassion, understanding, respect, and truthfulness both

as a pedagogue and researcher.

### **Definition of Terms**

**Mentorship:** Is an intentional activity whereby mentors execute their responsibilities with conscious effort in a nurturing relationship that has a goal of fostering the protégé's potential (Haines & Popovich, 2014).

**School Climate:** Is defined as the feeling an individual gets from experiences within a school system (Lindelow et al., 1989).

**Self-Efficacy:** Self-efficacy is defined as a person's belief in his or her capability to successfully perform a particular task (Bandura, 1977).

**Student Satisfaction:** Can be defined as a short-term attitude formed from an evaluation of students' educational experience, services, and facilities (Weerasinghe et al., 2017).

**High school Intention Completion:** Is defined as the likelihood that students will decide to complete their courses studies (Mallinckrodt, 1988).

## CHAPTER II

### LITERATURE REVIEW

#### **Mentoring**

Mentoring has been defined as an intentional activity whereby mentors execute their responsibilities with conscious effort in a nurturing relationship that has a goal of fostering the protégé's (mentee's) potential (Haines & Popovich, 2014). According to DuBois and Karcher (2005), it is a method for positive youth development and a barricade against at risk behaviors among youth. It has also been described to boost student retention, increase academic adjustment, and enhance student satisfaction and success. A mentoring relationship can be short term or long, formal, or informal or some shade of these along a continuum. Irrespective of type, the mentorship relationship is one in which the mentor with useful experience, knowledge, skills, and wisdom offers advice, information, guidance, support, or opportunity to another faculty member or student for that individual's professional development (Berk et al., 2005).

According to Eby et al. (2008), though there has been a broad study of mentoring and its prevalence in community, academic and organizational contexts, there has not been much cross disciplinary research nor quantitative literature reviews in this area. However, the author writes that there are many narrative reviews which examined the three main streams of mentoring: (a) academic (school mentoring), (b) youth mentoring, and (c) workplace mentoring. Youth mentoring is based on the belief that relationships among supportive adults and younger proteges (mentees) are meaningful to the mentee's cognitive, affective, and personal

development (Rhodes, 2002). Academic mentoring focuses on the personal and professional growth of the mentee (Kram, 1985); and academic mentoring typically follows the apprenticeship style of relationship where a faculty member takes a student under his/her wings and gives guidance in both academic and non-academic matters such as academic performance, career pathways and goals and personal issues (Jacobi, 1991). No matter the type of mentoring the consensus among researchers is that mentoring can have multiple positive outcomes for the mentee (Eby et al., 2008).

There are six dimensions to the mentoring construct: relationship, informative, facilitative, confrontive, mentor-model, and vision (Cohen, 2004). These can be summarized in the Table 1.

There are various theoretical frameworks that underpin the mentorship construct. Among these are social constructivism and collaborative reflection (Ngyuyen, 2017). Social constructionism proposed by Vygotsky purports that most learning occurs through interaction with others in the social context rather than in individual silos. It is essential that these social interactions take place in what Vygotsky called the “zone of proximal development (ZPD)” which he defined as “the distance between the present everyday actions of the individuals and the historically new form of societal activity that can be collectively generated” (Engeström et al., 1999, p. 74). There are three main tenets of Vygotsky’s ZPD. Firstly, there is the dialogue process involving the learner/mentee and the instructor/mentor. Secondly, there is the process of the mentor actively sharing and creating information, and thirdly the interaction between the mentor and mentee is both dynamic and dialectical with the mentee (Ngyuyen, 2017).

**Table 1***Description of Dimensions of Mentorship*

Dimension	Question	Indicator
Relationship	How does the mentor build trust in the relationship?	The mentor fosters trust by: Empathetic listening, descriptive feedback, asking open-ended questions, clarifying feelings, and being nonjudgmentally responsive.
Informative	How does the mentor provide helpful information to the mentee?	Mentors provide helpful information to the mentee by: -asking questions about the present; reviewing the past; asking probing questions which require concrete answers; clarifying and restating feedback; relying on facts
Facilitative	What alternatives are available to the mentee?	Mentors help mentees identify alternatives by: -unmasking assumptions, asking hypothetical questions, exploring several viewpoints, analyzing predications for behavioral goals, and reviewing preferences related to talents, skills, and needs of the mentee.
Confrontative	How can the mentor challenge the mentee?	Mentors confront well by: -careful probing, giving limited constructive feedback, identifying verbal discrepancies, and identifying the strategies for change which the mentee is most likely to be successful.
Mentor Model	How can the mentor motivate the mentee?	Mentors motivate their mentees by: -providing examples from their own experiences, having a realistic faith that the mentee will succeed and effectively communicating this by giving clear actional directives.
Vision	How can the mentor focus the mentee's initiative?	Mentors can focus their mentees initiative by: -finding out how the mentee would like to change, reviewing choices, reflecting on the present and the future, critiquing strategies, affirming the mentee, and encouraging the dreams and visions of the mentee.

Vygotsky's notion of social constructivism provides the theoretical platform for educational practices such as cooperative learning and for mentor/mentee relationships whether at the peer level or faculty - student level (Nyguyen, 2017). This is reflective of the Vygotskyian concept of joint activity since two or more participants of equal status work cooperatively to create new perspectives and self-knowledge (Lubic, 2000). In agreement with this is Tudge

(1992), who used a Piagetian approach to analyzing mentorship. This author posits that in the peer mentoring relationship, one peer may be more advanced in thinking than another and hence can be considered a more competent peer. Such relationships could be a highly effective means of inducing cognitive development through the exchange of ideas and the construction of meaning from multiple viewpoints. According to Miller (2008), peer dialogue is an avenue for the exploration of intersecting ZPDs within the relationship and the function of each participant is to steer the other to proceed through their ZPD. Mentoring is undergirded by the principle and practice of collaborative reflection (Nyguyen, 2017). The basic assumption here is that mentees learn from consistent critical reflection on their practice guided by their mentors and from knowledge acquired through peer dialogue rather than from the mere transmission of knowledge from their mentors. Thus, learning for the mentee becomes more of an exploratory activity moulded by experiential practice rather than a “do as I say” direct transmission model.

There are two types of reflection that have been found to be successful in reflective collaboration. These are “reflection in action” during an event and “reflection on action” a post event process (Schön, 1983). The mentee therefore develops their own understanding and modifies their actions through a constant framing and reframing of their own perspectives and practices. Reflective collaboration is summarized by Costa and Kallick (2000) as providing opportunities for the mentee to increase the meaning of their work through a rich base of knowledge gained from reflecting on the insights of others, watching others, documentation, experimentation, and application of knowledge beyond the context in which it was learned.

Mentoring whether formal or informal provides many psychosocial functions for the participants (Kram,1985). Among these affective roles of the mentorship relation are confirmation or affirmation, friendship, and personal feedback. Confirmation occurs through shared perspectives, values, and beliefs as the mentor-mentee relationship develops in context

and in isolation to interference by others outside of the relationship. According to Angelique et al. (2002), peers provide both empathetic and sympathetic emotional support to each other by dialoguing and counselling with each other, especially during periods of stress at work. In addition, peers tend to be both givers and recipients of personal feedback on issues contextual to the mentor-mentee process. In their study of a cohort-model teacher preparation program, Dinsmore and Wenger (2006) found that peer mentoring cultivated a feeling of coterie within the cohort. Thus, mentorship has both cognitive and affective benefits to the participants.

### **School Climate**

School climate has emerged as a driving factor influencing the educational process within institutions of learning (Brand et al., 2008; Collins & Parsons, 2010), yet it looms as large as a nondescript beast due to the lack of consensus about exactly what factors compose school climate. While there is much empirical evidence that points to the powerful overall effect school climate have on student academic success, there is much less clarity about precisely which of the psychosocial and organizational factors of this multidimensional construct impact student success the most and about the most influential differences between staff and student perceptions (Maxwell et al., 2017).

The complexity of the school climate definition has been made clear by its multiple different definitions and by the lack of consensus about which factors are concrete to its composition (Maxwell et al., 2017). It has been variously defined as the unwritten personality and atmosphere of a school (Haynes et al., 1997; Petrie, 2014); the social atmosphere of the school consisting of the relationships among students and staff/teachers, learning and teaching focus, shared methodologies and practices, and the norms and values (Anderson, 1982; Moos, 1987; Thapa et al., 2013); the quality and character of school life (Cohen et al., 2009); the

psychosocial atmosphere of the school and the group interactions that impact student learning and functioning (Johnson & Stevens, 2006; Lubienski et al., 2008; Reyes et al., 2012).

The lack of definitional consensus about school climate is compounded further by the fact that different stake holders (parents, students, principals, and faculty) in the educational process perceive its meaning and influence quite differently (Bear et al., 2014; Brookover et al., 1978; Esposito, 1999; Fan et al., 2011). Notwithstanding this definitional confusion, there are three common dimensions that emerge from the research and literature as belonging to the school climate construct: (a) the school's academic focus (growth mindset of the school); (b) the quality and consistency of social relationships within the school; and (c) shared goals, norms, and values described as acceptable and endorsed school behaviour (Fredericksen et al., 1968., Haynes et al., 1997; Hoy et al., 1998).

Various theories have been used to explain the relationship between school climate perception and student outcomes. These include self-determination theory, social cognitive theory (Bandura, 1995), social identity theory (Tajfel & Turner, 1979), and bioecological theory (Bronfenbrenner, 1979, 1986; Stewart, 2007).

The self-determination theory holds that for students to have positive outcomes, both students and their teachers need to satisfy their basic psychological needs of competence, relatedness, and autonomy (Connell & Wellborn, 1991). Proponents of social cognitive theory purport that to achieve successful outcomes and experience a sense of school satisfaction, students must have both individual and collective efficacy (Hoy et al., 2002). Others have found that teachers' self-efficacy also impacts students' academic achievement and by extension students' satisfaction with school (Caprara et al., 2006). According to Turner et al. (1987), the theme of social identity theory is belongingness. Thus, an individual's behavior (for example a student) can be shaped and moulded by a sense of belonging to a group, organization, or system,

for example, a school. The individual experiences a feeling of psychological membership and connectedness to the group or organization and the groups' meanings and values become normative and are translated into the individual's behavior.

In the educational context, the standards, principles, and ethics of the institute become the very fabric of the school climate construct. Thus, the academic focus of the school, the goals and aspirations of the administration, faculty, and student body become the shared values and behaviors that make up the school climate (Reynolds et al., 2017). The facilitator, identity, and the moulder of the institution's behavior then becomes known as the school climate (Maxwell et al., 2017). Therefore, if the school climate is nurturing, constructive, and protective, this may lead to students identifying with the school's efficacy and reflecting this by developing their own positive self-efficacy and striving for academic achievement resulting in school satisfaction (Reynolds et al., 2017). The theoretical underpinnings that will be applied to this investigation are the social identity theory and the self-determination theory.

### **Student Self-Efficacy**

According to Bandura (1977), self-efficacy refers to an individual's personal beliefs or self-confidence to effectively perform required tasks. Another definition describes self-efficacy as a person's belief to overcome challenging situations (Walker & Greene, 2009). Self-efficacy theory holds that an individual's actions that lead to success are directly related to the level of their commitment and focus on the given task (Bandura, 2003).

Applied to the school context, if a student has low self-efficacy, the student will have negative thoughts about school and view school tasks as hard and threatening rather than challenging and engaging (Suraya & Ali, 2009). In contrast, students who operate with a high level of self-efficacy tend to be actively engaged in the learning process and develop efficient

learning strategies that lead to academic success and school satisfaction (Pintrich et al, 1991).

Thus, self-efficacy is effective in achieving academic goals including school satisfaction (Greene et al., 2004; Turner & Lapan., 2002). Self-efficacy also directly and indirectly increases positive behaviors (Bandura, 2003), so that students with a high level of self-efficacy engage in deep learning (Liem et al., 2008). It has been found that student engagement and self-efficacy are strongly related (Majer, 2009; Thijs & Verkuyten, 2008). Research also shows that this correlation between self-efficacy and student engagement is more significant among high school students than elementary and middle school students and that the difference is due to identity development and higher levels of self-determination (Multon et al., 1991).

According to Bandura (2003), there are four main dimensions to self-efficacy: (a) physiological and emotional states, (b) verbal persuasion, (c) mastery experiences, and (d) vicarious experiences. Physiological and emotional health or well-being are important to student success and satisfaction because these factors support a student's ability to attend school and be an active participant in classroom activities. A sick student is less likely to attend to the teacher's directives, or verbal persuasion, or positive role modeling resulting in an erosion of their self-confidence and ability to achieve (Ackerman & Gross, 2018). This author supports Bandura's four dimensions of self-efficacy and extends them further by integrating them into six components of pedagogical practice: (a) individualizing education, (b) cooperating with parents, (c) cooperating with colleagues, (d) keeping discipline, motivating students, and (f) managing challenges and changes (Ackerman & Gross, 2018).

Mastery experiences have been found to be the most effective in increasing student efficacy because these provide opportunities for students to practice new skills and strengthen their cognitive and practical abilities (Ackerman & Gross, 2018). According to Wang et al. (2017), mastery experiences increase self-efficacy because they are among the most authentic

learning practices. Supporting this viewpoint, Gaumer Erickson and Noonan (2018), posit that mastery experiences help students to develop self-confidence in their own abilities as they flex their intellectual muscles and become successful through personal investments of time and effort. Teachers who develop an awareness of their students' self-efficacy can nurture this factor by providing vicarious learning experiences and motivating students through verbal persuasion (Ackerman & Gross, 2018). Additionally, teachers who themselves are efficacious tend to exude confidence, engender respect from students, parents, administrators, and colleagues, and this in turn positively supports student self-efficacy and student success (Ackerman & Gross, 2018; Wang et al., 2017).

The study of Dewitz and Walsh (2002) investigated the relationship between perceived self-efficacy and college satisfaction and found that higher levels of self-efficacy were correlated with higher levels of college satisfaction and that college self-efficacy was the most significant predictor of college satisfaction. Also, individuals with higher college self-efficacy scores had significantly higher scores on the college satisfaction scale. The study also revealed that when entered after college self-efficacy, neither social nor general self-efficacy did not account for any unique variance in college satisfaction apart from college self-efficacy.

### **Student Satisfaction**

Student satisfaction has been defined as a short-term perception which results from an assessment of students' educational participation, services, and facilities (Weerasinghe et al., 2017). Others define it as a cognitive-emotional evaluation of student's overall contentment with their educational (Lodi et al., 2019). According to Paul and Pradhan (2019), student satisfaction is foundational to student loyalty and is the outcome of the institutional practice and students' educational experience. It is also described as students' subjective perception of their

educational outcomes and of the quality-of-service students feel they are receiving at their educational institution (Elliott & Shin, 2002).

Among higher institutions of learning, there is much concern about student satisfaction especially as it relates to student retention in a prevailing atmosphere of competition among universities and colleges. As a result, many institutions of higher learning have adopted various marketing strategies to differentiate their educational products to attract as many students as possible. To accomplish this, they seek to measure and satisfy the needs and expectations of their students (Weerasinghe et al., 2017).

According to Colton and White (1985), there is also much concern among educators in elementary and high schools about student satisfaction with their schools even though there has not been much systematic investigation into this phenomenon at this educational level. Students' satisfaction with their educational experience is like customer satisfaction resulting from a complex interplay of factors. Understanding what those factors are and how they combine to influence satisfaction is critical to educators who believe that student satisfaction in addition to learning is a desired outcome of their pedagogical effort (Appleton-Knapp & Krentler, 2006). Researchers are generally agreed that student satisfaction is multidimensional in the composition being impacted by such factors as individual, behavioral, relational, and environmental grouped under two broad categories, namely individual factors and school conditions (Lodi et al., 2019).

Another study by Konu and Rimpela (2002), propose a School Well Being Model that expresses school satisfaction in four main dimensions: (a) school conditions, (b) social relationships, (c) means for self-efficacy, and (d) health. Among the individual or personal factors related to students' educational experiences are gender, dominant learning style of the individual, and temperament (Brokaw et al., 2004); student expectations (Appleton-Knap &

Krentler, 2006); grade point average (Porter & Umbach, 2001); age, gender, and among older students, employment (Fredericksen et al., 2019).

From the environmental or institutional perspective, factors that significantly impact student satisfaction include pedagogical style (Dana et al., 2001; Wilkins & Balakrishnan, 2013); standard of instruction (DeBourgh, 2003; Lado et al., 2003); quality and efficiency of teacher feedback, clarity of teacher expectations (Fredericksen et al., 2019), quality of physical facilities; effective use of technology (Wilkins & Balakrishnan, 2013); and class size (Krentler & Grudnitski, 2004). Other significant determinants of student satisfaction at the tertiary level of education include among others flexible curriculum, institutional status and prestige, campus climate, caring faculty, and student growth and development (Beerli Palacio et al., 2002; Douglas et al., 2006).

Over the last three decades, various models or frameworks used to evaluate student satisfaction in higher education (Weerasinghe et al., 2017) have been developed based on different psychological and management theories. One such theory is Brassard's (1979) theory of reinforcement which posits that student satisfaction is a function of perceived access to reinforcing activities in the school climate. According to the tenets of this theory, the more rewarding or satisfying the resources are, the higher the level of satisfaction that is reported by students.

Another theory is the business investment theory, which holds that students view their expenditure of time, energy, and engagement in learning as an investment from which they expect some type of satisfying return (Hatcher et al., 1992). The bigger the quantity of investment the higher the level of satisfaction expected.

One of the more frequently used models to evaluate student satisfaction, particularly in institutions of higher learning is the SERVQUAL survey which is founded on business

management theory (Waugh, 2002). It was created and developed by Parasuraman et al. (1985) to measure the quality of service and customer satisfaction in a business. It accounts for five dimensions namely: responsiveness, assurance, tangibility, reliability, and empathy. This business model instrument has been adapted for the educational context and it treats the student as a customer while the college or university is the business seeking to please the customer (Waugh, 2002). The SERVQUAL survey has been criticized for use in the educational context by many scholars primarily because it is a business model more applicable to for-profit industries which focus on service providers' quality rather than on tangibility, a more likely focus on non-profit colleges and universities in the public sphere (Weerasinghe et al., 2017).

Within the high school educational context, student satisfaction is related to factors such as academic performance, student engagement, and academic (Huebner & Gilman, 2006). According to Huebner and McCollough (2000), most studies on high school student satisfaction have historically focused on presumed student dissatisfaction rather than on determining the predictors of student satisfaction. To reduce this scarcity of measures for determining student satisfaction in high school students, Lodi et al. (2019) adapted the validated five-dimensional College Satisfaction Scale (CSS) to a High School Satisfaction Scale (H-Sat Scale) for high school students.

The H-Sat Scale measures five dimensions identified by a review and analysis of scientific and psychological literature pertaining to the CSS. The 20-item scale covers the dimensions of: appropriateness of choice (CH), quality of school services (SE), relationships with classmates (RE), the effectiveness of study habits (ST), and usefulness for a future career (CA).

In addition to measuring some dimensions such as study habits, school climate, and peer relationships related to the historic view of student satisfaction, the scale also measures student

satisfaction in terms of competence, knowledge acquired, course offerings, and intended career paths (Huebner & McCollough, 2000). The H-Sat Scale is the instrument that will be used to measure student satisfaction in this study.

### **High School Intention Completion**

Helping students to stay in school through to graduation has always been a challenge for many high schools in the USA (Princiotta & Reyna, 2009) and is a paramount consideration by many educational policy makers (Marks et al., 2000). Academic success is important because it is linked to other positive outcomes valued by most societies. These outcomes include employment stability, creating employment opportunities for others through entrepreneurship, access to good health care, less dependence on social assistance, and more active involvement as charitable volunteers and contributing citizens. Research has also shown that adults with higher levels of education earn higher salaries, are less likely to engage in criminal activity, and are less likely to be dependent on government assistance. Moreover, contemporary and future jobs will require that individuals have post-secondary educational and technological skills (Bridgeland et al., 2006). Notwithstanding the many advantages of completing high school, many high school students find it hard to do school and drop out before graduation (Princiotta & Reyna, 2009; Zimmer-Gembeck et al., 2006).

This problem of high school attrition is not limited to the USA, rather it is a challenge worldwide. Though among the Organization for Economic Cooperation and Development (OECD) countries, the percentage of 25–34-year old's that have failed to complete high school has been steadily dropping from 35% in 2000 to 29% in 2005, 26% in 2010 and 22% in 2016 (Organization for Economic Cooperation and Development, 2017), there are still more than one in five young adults who do not complete high school annually. The USA Department of

Education's National Center for Education Statistics reports an annual high school dropout rate of 15% (Princiotta & Reyna, 2009).

High school completion intention reflects students' commitment to and motivation to accomplish future goals and has been found to be a meaningful predictor of their later graduation (Davis et al., 2002; Gollwitzer & Sheeran, 2006; Knesting, 2008). There is a strong correlation between students with higher intentions to graduate and levels of motivation and engagement in learning (Caprara et al., 2006; Hill & Wang, 2015). Research has also revealed that the earlier in the educational process students show strong intentions to complete high school, for example in 9<sup>th</sup> and 10<sup>th</sup> grade, the more highly reduced was their risk for dropping out later in the process (Ensminger & Slusarcick, 1992). This leads to the conjecture that high school completion intention has a consistent motivational effect throughout high school (Burns, 2020).

High school attrition is the result of the interplay between individual and institutional factors (Haugan et al., 2019) and has its theoretical underpinning, in an ecological understanding of human development (Rumberger & Rotermund, 2012; Steinberg & Morris, 2001) and in Stage Environment Fit (SEF) (Burns, 2020; Eccles & Midgley, 1989). From an ecological understanding of human development standpoint, high school attrition is not a sudden one-time decision, rather it is the end result of a long process caused by the interaction of both individual or personal factors and institutional factors, such that the two become incongruent over time (Burns, 2020; Rumberger, 2017). The personal aspects include student behaviors, affective state, and cognitions whereas the institutional factors are rooted in three main contexts: (a) families, (b) schools, and (c) communities and their composite features such as composition, structure, school climate, resources, and pedagogical practices. It has been found that student grades from their elementary years have been a principal indicator of high school completion intention (Lamb & Markussen, 2011). Generally, more students with lower GPAs in elementary

school tend to drop out of high school than those with higher GPAs. In the Norwegian context, 99% elementary school students with GPAs of 55% or more complete high school compared to 13% of those with GPAs below 55% (Burns, 2020).

Another key factor impacting high school completion is family support and family background. Worldwide, research shows that students from lower socioeconomic (SES) backgrounds and those whose parents are of a lower educational status tend to have rates of educational success (higher dropout rates) than their counterparts with higher SES (Burns, 2020; DeWitte et al., 2013; Lamb & Markussen, 2011). Parental support has been shown to be another key factor in predicting high school completion (Cooper et al., 2005; Englund et al. 2008; Topor et al., 2010), parental involvement in learning activities at home (homework help, educational trips), and school (communication between home and school, participating in school events) also influence student success reduce attrition rates (Jeynes, 2012). Furthermore, parents can be agents of verbal persuasion promoting graduation because they are usually the primary socializing agents of their elementary age children, resource providers, and guidance counsellors across their children's ecological systems (Fall & Roberts, 2012; Halvorsrud, 2017; Rueger et al., 2010; Zaff et al., 2017).

The school environment and student engagement at school are two other significant predictors of high school completion (Burns, 2020, Haugan et al., 2019). According to Burns (2020), Stage -environment Fit (SEF) theory purports that students drop out of school when there is an incongruency between their needs and school resources. Quality teacher-student relationships (QTSRs) have been identified as one of the key factors in the school environment that impact student school intention completion (Martin & Dowson, 2009; Zimmer-Gembeck et al., 2006). The QTSRs are those peculiarized by mutual trust and respect, quality instruction, and socio-emotional support adapted to meet the needs of students (Eccles & Roeser, 2009;

Ryan & Deci, 2000). These factors when present, foster within students a sense of belonging and social and academic identity or school efficacy with the school and its vision and mission (Martin & Collie, 2019; Russell et al., 2016). Additionally, researchers have found that students who experience QTSRs have a higher tendency to internalize positive high school intention completion (Burns, 2020; Collie et al., 2016) and demonstrate more positive and adaptive academic behaviors (Wang & Eccles, 2012).

## CHAPTER III

### METHODOLOGY

#### **Introduction**

The objectives of this investigation are to analyse how mentorship as perceived by students, school climate as perceived by students, and student self-efficacy are predictors of student satisfaction and high school completion intention at Boston Adult Technical Academy, an Alternative High School in Boston, Massachusetts, USA.

This chapter will describe the proposed methodology to be used during the investigation as well as the design of the study, which includes (a) the type of research, (b) the study population, (c) the sample, (d) the measuring instrument, (e) the null hypotheses, (f) the data collection, and (g) the data analysis.

#### **Type of Investigation**

According to Levy and Lemeshow (2008), this type of research is quantitative, nonexperimental, transversal, and causal. This project is quantitative and empirical given the type of data and instruments used. It is a non-experimental project as it does not include conditioning of the study environments to achieve results. Finally, in relation to the time that the analysis of the population chosen for the research and the data collection with which it is intended to measure its behavior, this research is of a cross-sectional type since the instruments were applied only once during the investigation. In addition, it is explanatory when looking for the causes of the situations and events for which the relationship between mentorship as

perceived by students, school climate as perceived by students, family support as perceived by students, and student self-efficacy within the working environment, are the mediating variables and student satisfaction and high school intention completion are the dependent variables.

### **Population and Sample**

The population, also called the universe is a set of all cases that agree with specific specifications (Hernández Sampieri et al., 2014). The population to be used for this study will consist of 200 students from the Boston Adult Technical Academy, Boston Massachusetts.

The type of sampling carried out in this study is non-probabilistic, intentional. Representative personnel from each of the areas involved in the object of this study will be chosen from a subset of all the students from the Boston Adult Technical Academy of the Boston Public Schools system of Education.

### **Variables**

The variables used in this investigation are as follows: (a) independent, which includes mentorship as perceived by students, school climate as perceived by students, family support as perceived by students, and student self-efficacy; and (b) dependent which includes student satisfaction, and high school intention completion.

### **Instruments**

This section refers to the five instruments used in this investigation and Appendix A will describe the instruments. The instruments were adopted from published and validated research instruments. To interpret the score of the instruments, a higher value means a better perception.

#### **Mentorship as Perceived by Students**

To measure the mentorship variable, The Mentorship Effectiveness scale was used. The

instruments consist of 12 items with a 7-point Likert scale. The scale options are as follows: 0= strongly disagree (SD), 1= disagree (D), 2= slightly disagree (SID), 3= slightly disagree (SID), 4= agree (A), 5= strongly agree (SA), and 6= not applicable (NA). The Chronbach's alpha for this scale was .79, which indicates good reliability.

#### School Climate as Perceived by Students

To measure this variable, The CSCI: The Comprehensive School Climate survey was used. The instrument is composed of 13 items with a 5-point Likert Scale. The responses for the Scale are as follows: (1) strongly agree, (2) agree, (3) neither disagree nor agree, (4) agree, and (5) strongly agree. The Chronbach's alpha for this scale was  $\alpha = .738$  to  $.921$ , which indicates very strong reliability of the instrument's measure.

#### Student Self-Efficacy

To measure student self-efficacy, the Children's Perceived Self Efficacy Scale was used. This instrument consists of 15 items with a 4-point Likert Scale. The responses for the Scale are as follows: (1) really agree, (2) kind of agree, (3) kind of disagree, and (4) really disagree. For this instrument, the Chronbach's alpha was  $\alpha = .90$  to  $.95$ , which indicates a very high level of reliability of its measurement potential.

#### Student Satisfaction

To measure student satisfaction, the Student Satisfaction Scale was used. This instrument consists of 20 items with a 7-point Likert Scale. The responses for the Scale are as follows: (1) not at all satisfied, (2) moderately satisfied, (3) slightly satisfied, (4) neutral (neither satisfied nor dissatisfied), (5) satisfied, (6) very satisfied, (7) extremely satisfied. For this instrument, the Chronbach's alpha was  $\alpha = .818$  to  $.926$ , indicating high reliability.

## High School Completion Intention

To measure high school intention completion, the Intention to Persist vs. Drop out Scale was used. This instrument consists of 3 items with a 5-point Likert Scale. The responses of the Scale are as follows: (1) not at all, (2) slightly, (3) moderately, (4) very, and (5) extremely. This instrument also has a high degree of reliability of measurement as indicated by its Cronbach's alpha ( $\alpha = .95$ ).

## Operationalization of Variables

The section which follows defines and clarifies the conceptual and operational variables, as well as their measurement scales, that will be used in this research investigation. The items, dimensions, and reliability of each instrument are described in Tables 2 and 3.

## Data Collection

The process of data collection included the following:

1. Digital surveys were administered to students in person during class time.
2. Oral and written communication requested permission for the researcher to apply the instrument to the students at the school.
3. The link for the instrument was sent to all students.

## Ethical Aspects

In this work, the privacy of each participant will be respected, and the credits and thoughts of other authors will be admitted with recognition and ownership of their works. In this work, the privacy of each participant will be respected, and the credits and thoughts of other authors will be admitted with recognition and ownership of their works.

**Table 2***Operationalization of Variables*

Variable	Conceptual Definition	Operational Definition	Measurement Scale
Mentorship as Perceived by students	Mentorship: Is an intentional activity whereby mentors execute their responsibilities with conscious effort in a nurturing relationship that has a goal of fostering the protégé's potential (Haines, 2003).	To measure the level of identification and involvement, data will be obtained from students of the Boston Adult Technical Academy through the measure of 12 items. The variable is considered as metric.	The degree to which the level of identification and involvement in the organization affect Student Satisfaction and High school intention completion at Boston adult Technical Academy determined by means of the following 12 items, under the scale: determined for the following scale: Likert scale= 7 0 = Strongly Disagree (SD); 1 = Disagree (D); 2= Slightly disagree (SID); 3 = Slightly Agree (SIA) 4 = Agree (A); 5 = Strongly Agree (SA); 6 = Not Applicable (NA)
School climate as perceived by students	School Climate: Is defined as the feeling an individual gets from experiences within a school system (Lindelow et al., 1989).	To measure the level of identification and involvement, data will be obtained from students of the Boston adult technical academy through the measure of 13 items. The variable is considered as metric.	The degree to which the level of identification and involvement in the organization affect Student Satisfaction and High school intention completion at Boston adult Technical Academy determined by means of the following 13 items, under the scale: Likert scale: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree
Student self-efficacy	Self-Efficacy: Albert Bandura defined self-efficacy as a person's belief in his or her capability to successfully perform a particular task (Bandura, 1977).	To measure the level of identification and involvement, data will be obtained from students of the Boston adult technical academy through the measure of 15.  The variable was considered as metric	The degree to which the level of identification and involvement in the organization affect Student Satisfaction and High school intention completion at Boston adult Technical Academy determined by means of the following 15 items, under the scale: Likert scale = 1= Really disagree;  2 = Kind of disagree; 3 = Neither agree nor disagree; 4 = Kind of agree; 5 = Really agree
Student Satisfaction	Students Satisfaction: Can be defined as a short-term attitude from an evaluation of students' educational experience, services, and facilities (Weerasinghe et al., 2017).	To measure the level of identification and involvement, data will be obtained from students of the Boston adult technical academy through the measure of 20 items. The variable was considered as metric.	The degree to which the level of identification and involvement in the organization affect Student Satisfaction and High school intention completion at Boston adult Technical Academy is determined by means of the following 20 items, under the scale: Likert scale = 1 (Not at all); 2 (Slightly); 3 (Moderately); 4 (Very); 5 (Extremely).

High school Intention Completion	Student Completion Intention: Is defined as the likelihood that students will decide to complete their courses of studies (Mallinckrodt, 1988).	To measure the level of identification and involvement, data will be obtained from students of the Boston adult technical academy through the measure of 3 items. The variable was considered as metric	The degree to which the level of identification and involvement in the organization affect Student Satisfaction and High school intention completion at Boston adult Technical Academy determined by means of the following 3 items, under the scale: Likert scale = 1 (Not at all satisfied); 2 (Moderately satisfied); 3 (Slightly satisfied); 4 (Neither satisfied nor dissatisfied); 5 (Satisfied); 6 (Very satisfied); 7 (Extremely satisfied).
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**Table 3**

*Description of Instruments*

Variable	Name and Authors	Items	Dimensions	Likert Scale	Cronbach's alpha
Satisfaction	Student Satisfaction Scale (Lodi et al., 2019).	20	4	5	.818 - .926
High Completion Intention	Intentions to Persist vs. Drop out Scale (Hardre, P. L., & Reeve, J. (2003).	88	1	5	0.95
Student Self-Efficacy	Children's Perceived Academic Self-Efficacy Scale (Jinks & Morgan, 1999).	30	3	5	.90 - .95
School Climate	The Comprehensive School Climate Inventory (CSCI) (The National School Climate Center, 2013).	13	13	5	.738 - .921
Mentorship	Mentorship Effectiveness Scale (MES) (Berk et al., 2005).	12	1	7	0.79

## CHAPTER IV

### ANALYSIS OF THE RESULTS

#### **Introduction**

The broad scope of this research explored what correlations if any exist between mentorship as perceived by students, school climate as perceived by students, student self-efficacy, student satisfaction, and students' intention to complete high school among students at Boston Adult Technical Academy (BATA) a subset of Boston Public Schools. The study sought further to determine which of the independent variables of student-perceived mentorship, student-perceived school climate, and student self-efficacy had the greatest influence on student satisfaction and student's intention to complete high school. The outline of this chapter is as follows: (a) description of population and sample, (b) demographic information, (c) hypothesis test, and (d) summary of the chapter.

#### **Participants**

The research focused on student satisfaction and students' intention to complete high school among students at BATA. The independent variables were mentorship as perceived by students, school climate as perceived by students, and student self-efficacy, while the dependent variables were student satisfaction and high school completion intention. Out of a total of 140 students registered for the school year, 72 responded to the surveys, representing 51% of the population. The surveys were administered electronically via Google Forms. The data was scrubbed using a listwise-deletion approach, and a sample of 70 respondents was retained.

According to Hair et al. (2007), this sample size is deemed adequate for a study involving five constructs, each of which is evaluated by three or more items.

### **Demographic Description**

The gathered demographics included the respondents' age, gender, school grade level, employment status, and their living situation (whether they live alone, with parents/guardians, or with others). All demographic information can be seen in Appendix B.

#### *Age*

Table 4 shows that student respondents ranged in age from 18 to 31 years old, with 31 students (43.1%) at age 20, and one student (1.4%) each at ages 24, 28, 29, and 31. Two respondents (2.8%) were 18 years old. The median age of the respondents was 20.43 years, with a standard deviation of 2.115. This data is consistent with BATA being an alternative high school, where the students are 18 years of age or older.

**Table 4**

#### *Age of Students*

<i>Age</i>	<i>n</i>	<i>%</i>
18	2	2.8
19	17	23.6
20	31	43.1
21	16	22.2
22	2	2.8
24	1	1.4
28	1	1.4
29	1	1.4
31	1	1.4
Total	72	100.0

## Gender

With respect to gender, most of the students (54.2%) are female and 45.8% are male as shown in Table 5.

**Table 5**

### *Gender of Students*

Gender	<i>n</i>	%
Male	33	45.8
Female	39	54.2
Total	72	100.0

## Grade Level

The grade level distribution of respondents shows that 76.4 % are grade 12 students and the remaining 23.6% are grade 11, as shown in Table 6.

**Table 6**

### *Grade Level of Students*

Grade	<i>n</i>	%
11	17	23.6
12	55	76.4
Total	72	100.0

## Work/Employment Status

Table 7 shows the distribution of employment status. Most of the respondents (70.8%,  $n = 51$ ) indicated that they are students who work in addition to attending school.

**Table 7**

*Work/Employment Status of Students*

Work	<i>n</i>	%
Yes	51	70.8
No	21	29.2
Total	72	100.0

#### Habitation Status

As Table 8 reveals, 48 (66.7%) respondents report that they live with their parents, 14 (19%) respondents live alone, and 10 (3.9%) live with individuals other than their parents.

**Table 8**

*Habitation Status of Students*

Habitation status	<i>n</i>	%
Myself	14	19.4
Parents	48	66.7
Others	10	13.9
Total	72	100.0

#### Language

The sample population speak over seven different languages. The larger percentage of the sample, 48.6%, identify Spanish as their first language, with English being the second most common language, accounting for 18.1% of the population. Haitian Creole and other languages each account for 11.1% respectively of the languages spoken and the language least identified as the first language among the respondents is Portuguese (see Table 9).

**Table 9**

*First Language of Students*

<i>Language</i>	<i>n</i>	<i>%</i>
English	13	18.1
French	2	2.8
Spanish	35	48.6
Haitian Creole	8	11.1
Portuguese	6	8.3
Others	8	11.1
Total	72	100.0

**Reliability**

There were three independent variables. The mentorship construct consisted of 12 items, and the Cronbach's alpha was .979, indicating a strong internal reliability among the items. With respect to the variable of school climate, the internal reliability of the 13 items of which this construct was composed was also high, with a Cronbach's alpha of .815. The Cronbach's alpha for student self-efficacy was .848, also indicating a high degree of internal consistency among the 28 items.

There were two dependent variables in this study: intention to persist in school and school satisfaction, and the Cronbach's alpha for both was high, indicating a high degree of internal consistency among the items. For the construct intention to persist in school, which consisted of only three items, the Cronbach's alpha was .823, and for school satisfaction, it was .955 (see Table 10 and Appendix C).

**Description of Mentorship**

For Mentorship, the highest mean score was 5.96 for item M4: 'My mentor is approachable (friendly, easy to talk to).' The lowest mean score for this construct was 5.74 for

item M10: 'My mentor acknowledges my contributions appropriately (e.g., committee contributions, awards, etc.).' Both scores indicate that these items were strong indicators of good fit for these items and indeed for the range of items in this construct (see Table 11 and Appendix D).

**Table 10**

*Reliability Statistics*

Construct	Number of elements	Cronbach's alpha
Mentorship	12	.979
School climate	13	.815
Student self-efficacy	28	.848
Intention to Persist in School	3	.823
School satisfaction	20	.955

**Table 11**

*Arithmetic Mean and Standard Deviation for Mentorship*

Items	<i>M</i>	<i>SD</i>
M1. My mentor is accessible.	5.81	1.268
M2. My mentor demonstrates professional integrity.	5.90	1.115
M3. My mentor demonstrated content expertise in my area of need.	5.90	1.128
M4. My mentor is approachable (friendly, easy to talk to ).	5.96	1.119
M5. My mentor is supportive and encouraging.	5.83	1.289
M6. My mentor makes useful suggestions about how I can improve my schoolwork.	5.94	1.161
M7. My mentor motivates me to improve my work product.	5.90	1.128
M8. My mentor is helpful in providing directions and guidance on professional (school related) issues e.g., networking with peers.	5.76	1.305
M9. My mentor answers my questions satisfactorily (e.g., suggests workable solutions, timely responses etc.)	5.78	1.345
M10. My mentor acknowledges my contributions appropriately (e.g., Committee contributions, awards etc.)	5.74	1.353
M11. My mentor suggests appropriate resources (e.g. suggests experts that I could talk to or online resources I can use).	5.79	1.299
M12. My mentor challenges me to extend my abilities (e.g., trying a new approach to doing an assignment, or completing homework).	5.92	1.071

## Description of School Climate

The highest arithmetic mean for the items in the school climate construct is 4.33, corresponding to item SC8: “My teachers encourage me to try out my own ideas.” The lowest mean score is 3.35, corresponding to item SC11: 'Many students in my school will try to stop other students from threatening or harassing (bullying) others using social media' (see Table 12).

**Table 12**

*Arithmetic Mean and Standard Deviation for School Climate*

Items	<i>M</i>	<i>SD</i>
SC1. My school tries to get students to join after-school activities.	3.79	.992
SC2. Adults in my school are good examples of the values the school teaches (like respect, responsibility, and fairness)	4.21	.804
SC3. In my school, adults teach me how to express emotions in proper ways.	3.88	.903
SC4. Adults in my school seem to work well with each other.	4.27	.585
SC5. Students in my school respect each other’s differences (e.g., gender, race, culture, disability, sexual orientation, learning differences)	4.11	.742
SC6. In my school, we learn ways to resolve disagreements so that everyone can be satisfied with the outcome (result).	4.14	.512
SC7. My school tries to get all families to be part of school events.	3.93	.793
SC8. My teachers encourage me to try out my own ideas.	4.33	.650
SC9. I have been insulted, teased, harassed, or otherwise verbally abused (bullied) more than once in my school.	3.82	1.397
SC10. In my school, we talk about the way our actions will affect others.	3.83	.941
SC11. Many students in my school will try to stop other students from threatening or harassing (bullying) others using social media.	3.35	1.128
SC12. Students have friends at school they can turn to if they have questions about homework.	3.99	.682
SC13. In my school, we talk about ways to be a good person.	4.07	.678

## Description of Student Self-Efficacy

The highest arithmetic mean for the construct *student self-efficacy* corresponds with the statement SSE17 “It is important to go to high school” ( $M = 4.78$ ) and the lowest mean score corresponding to the statement SSE4 “I would get better grades if my teacher liked me better” ( $M = 2.74$ ). These results can be seen at Table 13.

**Table 13**

*Arithmetic Mean and Standard Deviation for Student Self-efficacy*

Items	<i>M</i>	<i>SD</i>
SSE1. I work hard in school.	4.32	.976
SSE2. I could get the best grades in class if I tried enough.	4.56	.820
SSE3. Most of my classmates like to do Math because it is easy.	3.35	.235
SSE4. I would get better grades if my teacher liked me better.	2.74	.453
SSE5. Most of my classmates work harder on their homework than I do.	3.36	.166
SSE6. I am a good science student.	3.85	.206
SSE7. I will graduate from high school.	4.72	.876
SSE8. I go to a good school.	4.67	.712
SSE9. I always get good grades when I try hard.	4.63	.701
SSE10. Sometimes I think an assignment is easy when the other students in the class think it is hard.	3.72	.153
SSE11. I am a good social studies student.	4.01	.068
SSE12. Adults who have good jobs probably were good students when they were kids.	3.53	.222
SSE13. When I am old enough, I will go to college.	3.86	.190
SSE14. I am one of the best students in my class.	3.62	.238
SSE15. No one cares if I do well in school.	3.46	.424
SSE16. My teachers think I am smart.	4.11	.015
SSE17. It is important to go to high school.	4.78	.697
SSE18. I am a good Math student.	3.51	.363
SSE19. My classmates usually get better grades than I do.	2.75	.160
SSE20. What I learn in school is not important.	3.85	.370
SSE21. I usually understand my homework assignments.	4.18	.924
SSE22. I usually do not get good grades in Math because it is hard.	3.18	.313
SSE23. It does not matter if I do well in school.	3.94	.382
SSE24. Students who do better than I do get more help from the teacher than I do.	3.60	.218
SSE25. I am a good reading student.	3.99	.911
SSE26. It is not hard for me to get good grades in school.	3.72	.178
SSE27. I am smart.	4.25	.031
SSE28. I will quit school as soon as I can.	3.77	.386

### Description of Intention to Persist in School

For the dependent construct *intention to persist in school*, the item with the highest mean is IPS3 with a score of 6.11 and corresponding to the statement “I intend to drop out of school.” The item with the lowest mean score for this construct is IPS 2 with a mean of 5.22 and matching the statement “I sometimes feel unsure about continuing my studies year after year” (Table 14).

**Table 14**

*Arithmetic Mean and Standard Deviation for Intention to Persist in School*

Items	<i>M</i>	<i>SD</i>
IPS1. I sometimes consider dropping out of school.	5.58	1.813
IPS2. I sometimes feel unsure about continuing my studies year after year.	5.22	1.646
IPS3. I intend to drop out of school.	6.11	1.543

### Description of Student Satisfaction

The statements with the highest arithmetic mean for the dependent construct, *student satisfaction* (see Table 15), corresponds with the statement SS1 “I am satisfied that I chose to come to this school.” ( $M = 4.13$ ) and SS20 “I am satisfied that what I am learning in this school will be useful to find a good job” ( $M = 4.12$ ). The statement with the lowest arithmetic mean reads SS12 “I am satisfied about school services for the students ( $M = 3.56$ ).

### Hypothesis Test

The hypothesis of this research declares the following:

H1. The level of mentoring, school climate, and student self-efficacy are significant predictors of student satisfaction as perceived by students at Boston Adult Technical Academy during the 2021-2022 academic year.

**Table 15***Arithmetic Mean and Standard Deviation for Student satisfaction*

Items	<i>M</i>	<i>SD</i>
SS1. I am satisfied that I chose to come to this school.	4.13	.948
SS2. I am satisfied because the classrooms where we carry out our lessons are comfortable.	3.96	.869
SS3. I am satisfied with my relationships with my classmates.	3.76	1.068
SS4. I am satisfied about my ways of studying.	3.69	1.121
SS5. I am satisfied that my studies will be useful for my educational and/or professional future career.	3.94	.991
SS6. I am satisfied because I like what I am studying in this school.	3.71	1.067
SS7. I am satisfied with the school's equipment (textbooks, furniture, chalkboard, computers etc.)	3.83	1.088
SS8. I am satisfied because I can study well with my classmates.	3.71	.941
SS9. I am satisfied with the school goals I am achieving.	3.61	1.108
SS10. I am satisfied because I feel that my studies will be useful for my educational/professional future career.	3.83	1.113
SS11. I am satisfied for having undertaken this school (coming to this school).	4.03	.910
SS12. I am satisfied about the school services for the students (cafeteria, gym, library, administrative offices etc.)	3.56	1.124
SS13. I am satisfied because I can count on the help of my classmates.	3.61	1.145
SS14. I am satisfied for motivation in my studies.	3.68	1.005
SS15. I am satisfied because this school will have a positive effect on my future professional career.	4.07	.816
SS16. I am satisfied because after all, this school's courses suit me.	3.81	.882
SS17. I am satisfied about the availability of those who work in the school towards the students (Students have access to those who work in the school).	3.81	1.002
SS18. I am satisfied about my friendship with my classmates.	3.83	1.088
SS19. I am satisfied about my school results.	3.71	1.106
SS20. I am satisfied that what I am learning in this school will be useful to find a good job.	4.12	.887

H2. The level of mentoring, school climate, and student self-efficacy are significant predictors of high school completion intention as perceived by students at Boston Adult Technical Academy during the 2021-2022 academic year.

H3. The level of satisfaction perceived by students at Boston Technical Academy is a significant predictor of high school intention completion during the 2021-2022 academic year.

## Null Hypothesis Test 1

The null hypothesis of  $H_{01}$  states the following: The level of mentoring, school climate, and student self-efficacy are not significant predictors of student satisfaction perceived by students at Boston Adult Technical Academy during the 2021-2022 academic year.

Firstly, using the stepwise statistical technique of linear regression, the *mentorship* variable was excluded from the model. It was then found that the variables *school climate* and *self-efficacy* were the best predictors of school satisfaction as together they explain 40.3% of the variance of the dependent variable *school satisfaction*. The corrected  $R^2$  value was equal to .385 which indicates that the two variables student self-efficacy and school climate explain 38.5% of the variance of the dependent variable school satisfaction. The F value is equal to 22.620, and the  $p$  value is equal to .000. This also indicates a positive linear relationship between *school climate*, *student self-efficacy* and *school satisfaction* among the students at Boston Adult Technical Academy. Based on this statistical data, the null hypothesis proposed is rejected and the research hypothesis  $H_1$  is accepted.

## Multiple Regression Assumptions

According to Hair et al. (2007), there are four assumptions to be tested in the multiple regression: (a) linearity of the phenomenon, (b) normality of the residues, (c) independence of the error terms, and (d) constant variance of the error term (homoscedasticity).

### Residual Independence

To check the independence between the residuals, the Durbin-Watson statistic was calculated, whose value was 2.426. This indicates that the assumption of residual independence is not violated (see Table 16).

**Table 16**

*Summary of the Regression Model of School Satisfaction*

Model	R	R square	Adjusted R square	Standard estimation error	Durbin-Watson
1	.524 <sup>10</sup>	.274	.263	.64721	
2	.635 <sup>b</sup>	.403	.385	.59127	2.426

- a. Predictors: (Constant), School Climate
- b. Predictors: (Constant), School Climate, Self -Efficacy
- c. Dependent variable: School satisfaction

### **Non-Collinearity**

The inflation of variance (VIF) factor was used to assess the presence of collinearity. Values between 1 and 4 indicate that there is no collinearity between the variables.

In this research, the VIF values are as follows: (a) School Climate (VIF = 1.063) and (b) Self-Efficacy (VIF = 1.063). These results can be seen in Appendix E.

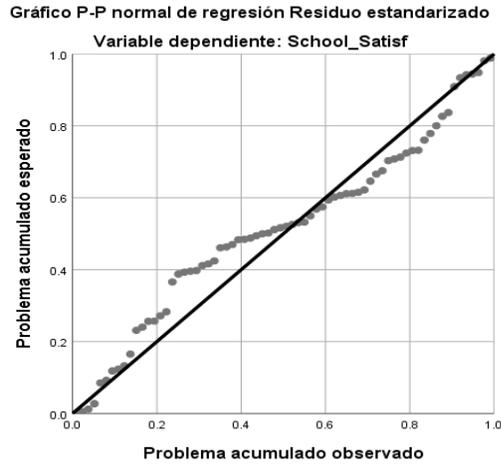
The estimated regression equation with non-standardized coefficients was as follows: School Satisfaction = -1.281 + 0.714 (School Climate) + 0.586 (Self-Efficacy) (constructed based on the original units in which the variable was constructed). While the equation with standardized coefficients was School Satisfaction = -1.281 + 0.433 (School Climate) + 0.370 (Self-Efficacy) (built based on SD).

### **Normality of Residuals**

To visually check the normality of the residuals, the P-P graph was used. In Figure 1, the points that represent the residuals of each subject are located near the diagonal line. From the graph, the distribution of residuals seems to suggest that there is no major violation of the assumption of normal distribution of residuals.

**Figure 1**

*Graphic P-P Normal Residuals Standardized*

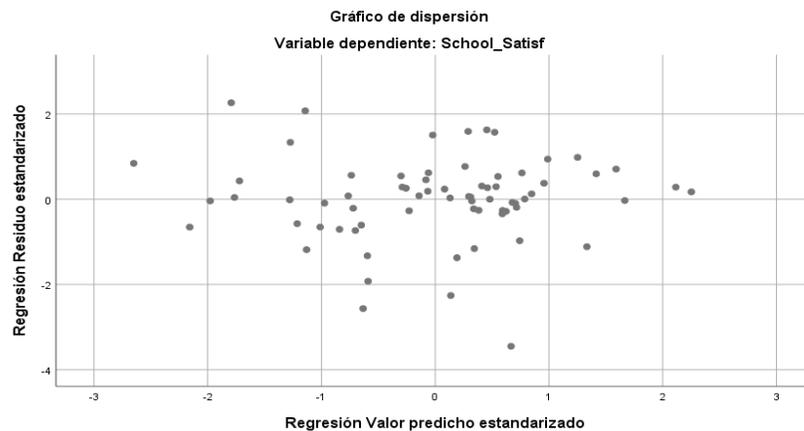


### **Homoscedasticity**

To evaluate the assumption of constant variance (homoscedasticity) of the residuals, the graph of residual values vs predicted values was used. No non-random pattern of residuals is observed in Figure 2, so it is concluded that there is no violation of this assumption.

**Figure 2**

*Graphic of Dispersion*

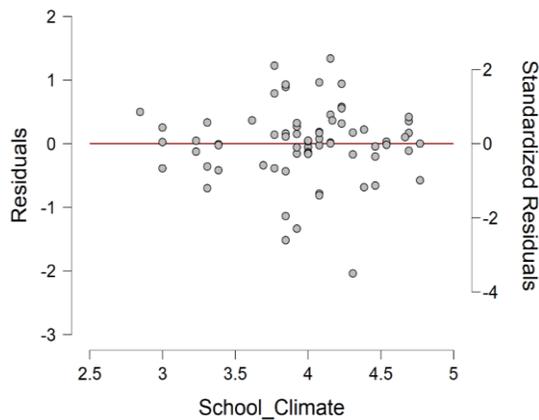


## Linearity

To evaluate the linearity assumption of the regression model, graphs of residuals versus predictors are used, as shown in Figures 3 and 4. No non-random pattern of residuals was observed, so it is concluded that the response variable (criterion/dependent) is a linear function of the regression parameters.

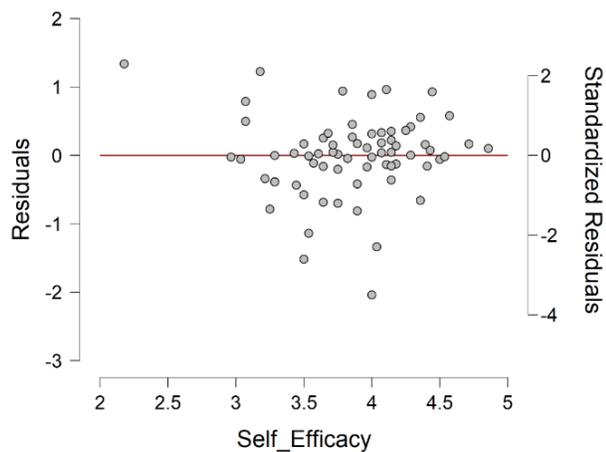
**Figure 3**

*Standardized residuals of School Climate*



**Figure 4**

*Standardized residuals of Self-Efficacy*



## Null Hypothesis Test 2

The second null hypothesis ( $H_{02}$ ) declares that the level of mentoring, school climate, and student self-efficacy are not significant predictors of high school completion intention as perceived by students at Boston Adult Technical Academy during the 2021-2022 academic year.

Using the stepwise statistical technique of linear regression, the variables of school climate and student satisfaction were excluded from the model. It was then observed that the predictor variable of *self-efficacy* explained 20.1% of the variance of the dependent variable *intention to persist in school* while the second predictor variable *mentorship* accounted for 27.1% of the variance on *intention to persist in school*. Thus, of these two predictor variables *mentorship* had the stronger influence on *intention to persist in school*. The corrected  $R^2$  value for *mentorship* was .249 and for *self-efficacy*, it was .190. The adjusted  $R^2$  values confirm that of *mentorship* and *self-efficacy*, *mentorship* is the statistically stronger predictor of *intention to persist in school*. The F value for *mentorship* is 12.466 and for *self-efficacy* it is 17.146; and for both variables  $p < .05$ . These F values indicate a positive linear relationship between *mentorship* and *intention to persist in school*, and between student *self-efficacy* and *intention to persist in school* among the students at Boston Adult Technical Academy. Based on this statistical data, the null hypothesis proposed is rejected and the research hypothesis  $H_2$  is accepted.

## Multiple Regression Assumptions

### Residual Independence

To check the independence between the residuals, the Durbin-Watson statistic was calculated, and its value was determined to be .015 (outside the acceptable range of 1.50 to 2.50). This very low Durbin-Watson statistic indicates the presence of positive autocorrelation and also that the assumption of residual independence is not violated (see Table 17).

## Non-Collinearity

The inflation of variance (VIF) factor was used to assess the presence of collinearity. Values between 1 and 4 indicate that there is no collinearity between the variables.

For this model, the VIF values are as follows: (a) *self-efficacy* (VIF = 1.003) and (b) *mentorship* (VIF = 1.003).

The estimated regression equation with non-standardized coefficients was as follows: Intention to persist in school =  $-.718 + 1.197$  (Self-efficacy) +  $0.315$  (Mentorship) (constructed based on the original units in which the variable was constructed). While the equation with standardized coefficients was Intention to persist in school =  $-.718 + .434$  (Self-efficacy) +  $.265$  (Mentorship).

**Table 17**

*Summary of the Regression Model of Intention to Persist in School*

Model	<i>R</i>	<i>R</i> <sup>2</sup>	Adjusted <i>R</i> <sup>2</sup>	Standard estimation error	Durbin-Watson
1	.449 <sup>a</sup>	.201	.190	1.18294	
2	.521 <sup>b</sup>	.271	.249	1.13845	.015

Notes:

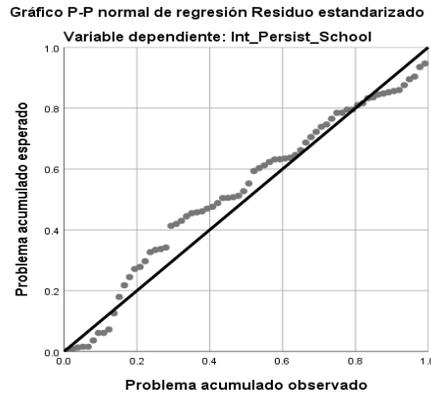
- a. Predictors: (Constant), Self-Efficacy
- b. Predictors: (Constant), Self-Efficacy, Mentorship
- c. Dependent variable: Intention to persist in school

## Normality of Residuals

To visually check the normality of the residuals, the P-P graph was used. In Figure 5, the points that represent the residuals of each subject are located near the diagonal line. From the graph, the distribution of residuals seems to suggest that there is no major violation of the assumption of normal distribution of residuals.

**Figure 5**

*Graphic P-P Normal Residuals Standarized of Intention to Persist in School*

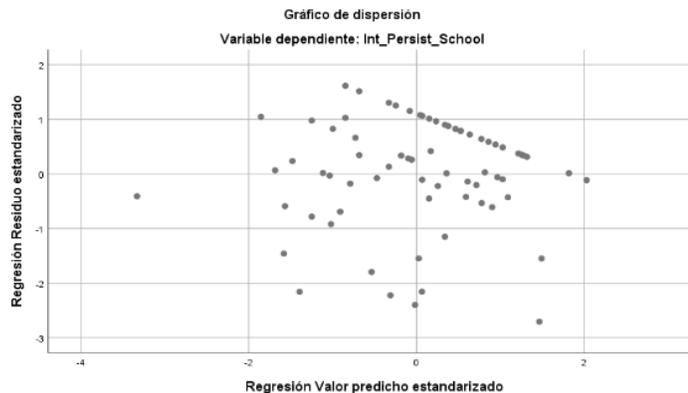


### **Homoscedasticity**

The assumption of homoscedasticity is that there is equal or similar variance or spread among the data of different groups being tested and compared. To evaluate this assumption of constant variance (homoscedasticity) of the residuals, the graph of residual values vs predicted values was used. No non-random pattern of residuals is observed in Figure 6, so it is concluded that there is no violation of this assumption.

**Figure 6**

*Graphic of Dispersion*

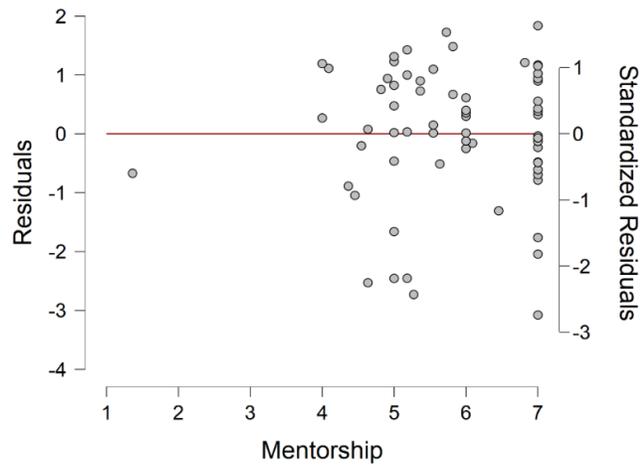


## Linearity

To evaluate the linearity assumption of the regression model, graphs of residuals versus predictors are used, as shown in Figures 7 and 8. No non-random pattern of residuals was observed, so it is concluded that the response variable (criterion/dependent) is a linear function of the regression parameters.

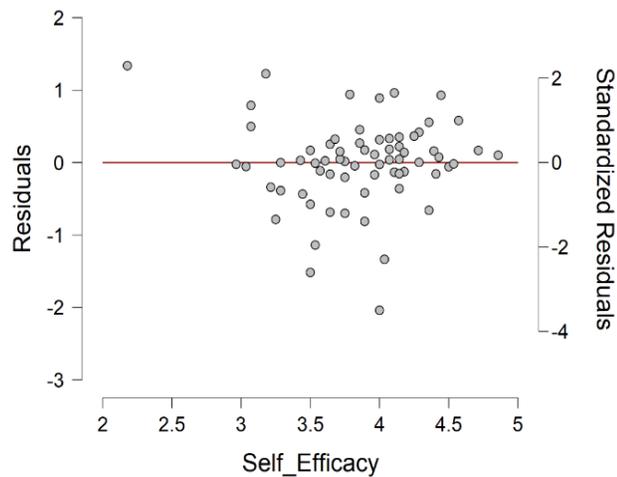
**Figure 7**

*Graph of Residuals vs. Mentorship*



**Figure 8**

*Standardized Residuals of Self-Efficacy*



### Null Hypothesis Test 3

The third null hypothesis ( $H_03$ ) declares the following: The level of student school satisfaction as perceived by students at Boston Technical academy is not a significant predictor of high school intention completion during the 2021-2022 academic year.

Employing the technique of stepwise regression analysis, the independent variables of *school climate*, *mentorship*, and *self-efficacy* were removed from this model to test the statistical influence if any, of the dependent variables *school satisfaction* and *intention to persist in school* on each other. It was then observed that *school satisfaction* explained a mere 8.6% of the variance on *intention to persist in school*. The corrected  $R^2$  value was equal to .072, meaning that the 7.2% of variance of intention to persist in school is explained by school satisfaction.

The F value is equal to 6.374 and the  $p$  value was equal to  $.014 < .05$ . Based on this statistical data, the null hypothesis proposed is rejected and  $H_3$  is accepted.

### Multiple Regression Assumptions

#### Residual Independence

The Durbin-Watson statistic was calculated to check the independence between residuals and its value was determined to be .578 (acceptable range is 1.50 – 2.50). This below normal value of the Durbin-Watson statistic indicates that there is positive auto correlation, and the assumption of residual independence is not violated (see Table 18).

**Table 18**

#### *Second Summary of the Regression Model of Intention to Persist in School*

Model	$R$	$R^2$	Adjusted $R^2$	Standard error of estimation	Durbin-Watson
1	.293 <sup>a</sup>	.086	.072	1.26571	.578

Notes: a. Predictors: (Constant), School satisfaction. b. Dependent variable: Intention to persist in school

### Non-Collinearity

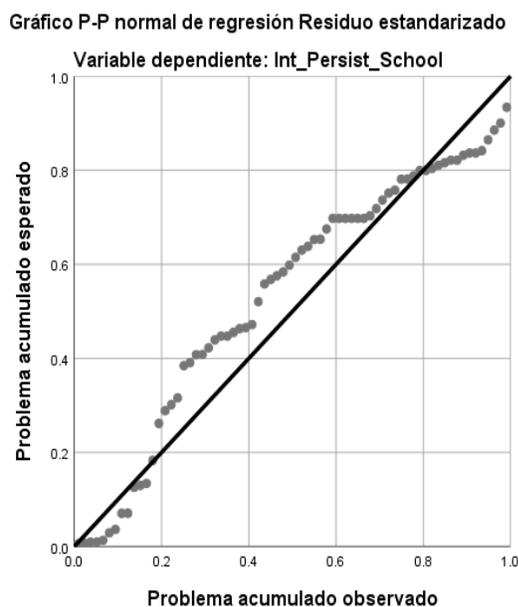
In this model, the VIF value was equal to 1.000. The estimated regression equation with non-standardized coefficients was as follows: Intention to persist in school = 3.794 + .510 (school satisfaction) (constructed based on the original units in which the variable was constructed). While the equation with standardized coefficients was Intention to persist in school = 3.794 + .293 (school satisfaction).

### Normality of Residuals

To visually check the normality of the residuals, the P-P graph was used. In Figure 9, the points that represent the residuals of each subject are located near the diagonal line. From the graph, the distribution of residuals seems to suggest that there is no major violation of the assumption of normal distribution of residuals.

### Figure 9

*Graphic P-P normal Residuals Standardized of Intention to Persist in School*

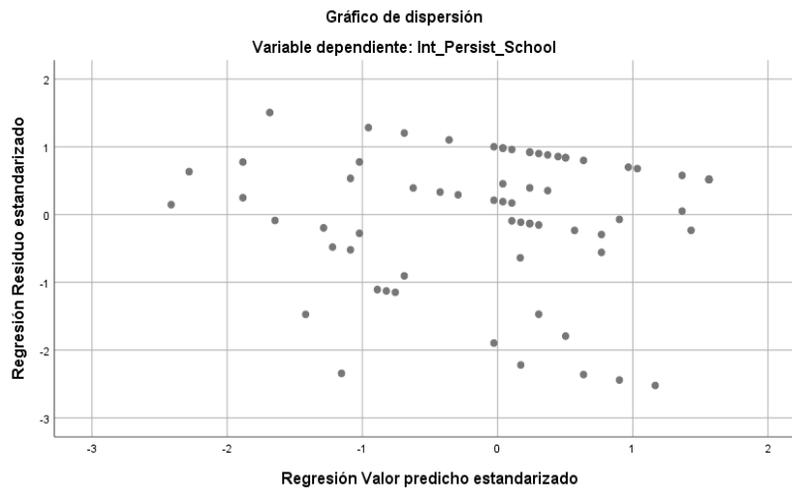


## Homoscedasticity

To evaluate the homoscedasticity Figure 10 was used. It shows no pattern of residuals, so it is concluded that there is no violation of this assumption.

### Figure 10

*Graph of Dispersion with Dependent Variable Intention to Persist in School*



## Linearity

To evaluate the linearity assumption of the regression model, graphs of residuals versus predictors are used. No non-random pattern of residuals was observed, so it is concluded that the response variable (criterion/dependent) is a linear function of the regression parameters.

## Secondary Results

### Path Analysis

In addition to regression analysis, a secondary analysis tool, path analysis, was employed. This model, shown in Figure 11, indicates the effect of the exogenous variables school climate ( $\beta_{st} = .43$ ), and self-efficacy ( $\beta_{st} = .37$ ) respectively on school satisfaction.

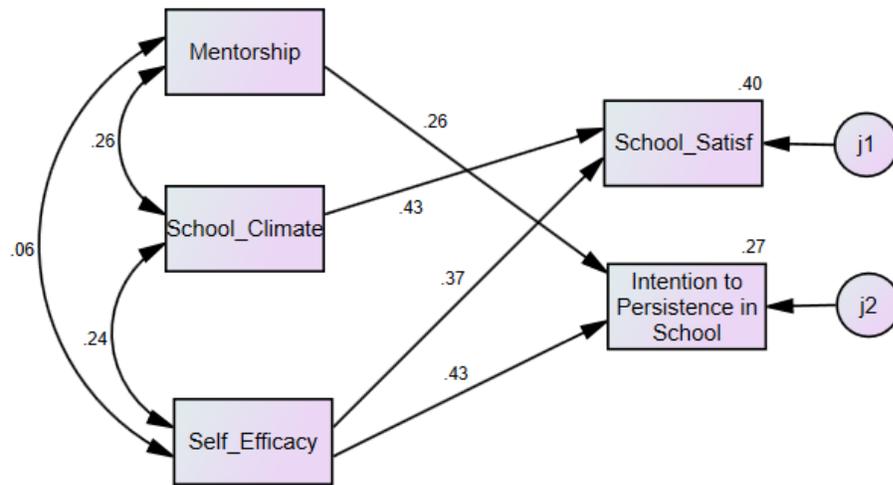
Together, they explained 40% of the variance in school satisfaction, with an acceptable goodness of fit.

Secondly, this path analysis model shows that the exogenous variables mentorship ( $\beta_{st} = .26$ ) and self-efficacy ( $\beta_{st} = .43$ ) each exert a significant effect on the intention to persist in school. Together, they account for 27% of the variance in the intention to persist in school.

Additionally, there are covariances between (a) self-efficacy and mentorship (.06), (b) self-efficacy and school climate (.24), and (c) school climate and mentorship (.26).

**Figure 11**

*Path Analysis*



CMINDF=.735, CMIN=2.204, P=.531, RMSEA=.000, CFI=1.000,  
TLI=1.045, GFI=.988, NFI=.968, RMR=.025

The path analysis model has acceptable goodness of fit. The Table 19 shows the criteria established, the results, and the conclusion of each one. Therefore, there is sufficient evidence to affirm that the path analysis model has an adequate goodness according to the criteria.

**Table 19**

*Criteria and Results of Path Analysis Model*

Criteria	Results	Conclusion
$\chi^2, p > .05$	.531	Accepted
RMSEA < .08	.000	Accepted
CFI > .90	1.000	Accepted
TLI > .90	1.045	Accepted
GFI > .90	.988	Accepted
NFI > .90	.968	Accepted
RMR < .05	.025	Accepted

When applying a T -Test, it was found that there was a significant difference ( $p = .029$ ) in the perception of school climate by students who work ( $M = 3.90$ ) and those who don't work ( $M = 4.16$ ). This data suggests that students who do not work have a more positive perception of the BATA school climate than those who do work and attend school.

## CHAPTER V

### SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

#### **Introduction**

This chapter provides a summary of the previous four chapters. The flow of this chapter is as follows: (a) a brief review of the background and purpose of the study; (b) an overview of the literature; (c) a description of the methodological steps used; (d) a presentation of the main findings of the study; (e) a discussion of the relevant results; and (f) recommendations for future research.

#### **Summary**

The current study sought to determine whether mentorship, school climate, and self-efficacy are significant predictors of student satisfaction and students' intention to persist in school as perceived by students at Boston Adult Technical Academy, in 2021-2022.

The variables reviewed in the literature were: mentorship, school climate, self-efficacy, school satisfaction, and student intention to persist in school.

Haines and Popovich (2014) defined mentorship as a deliberate activity whereby a person who is more well-versed and skilled in a particular field of study and /or practice (the mentor) enters a nurturing relationship with one less informed and skilled (the mentee) with the goal of supporting and developing the mentee's potential. Expressed differently, all mentorships have as their overarching objective the mentor coming alongside the mentee and using

modeling, coaching, and other instructional strategies to effectively harness or improve the intellectual, personal, social, and technical skills of the mentee (Karcher & Nakkula, 2010; Schunk & Mullen, 2013; Scribner, 2019).

The consensus among researchers is that mentoring is an effective strategy for improving high school outcomes because it has been found that mentored adolescents are more likely to persist in school through to graduation than their non-mentored peers (Herrera et al., 2007; DuBois et al., 2011; Ibáñez García et al., 2020). Other studies reveal that mentoring whether formal or informal supports the mentee at two crucial levels. Firstly, warning signs of potential attrition can be early detected and prevented in the school cycle, and secondly, the mentee can be befriended and encouraged in an effort to bolster their school attendance (Belfanz & Byrnes, 2013; Bruce & Bridgeland, 2014; Collings et al., 2014; Powell, 2014).

School climate has been variously defined as the unscripted atmosphere and personality of the school (Haynes et al., 1997; Petrie, 2014); the interpersonal atmosphere of the school consisting of the relationships among all stakeholders, as well as the shared methodologies, and practices, and the norms and values adhered to by school personnel and those of its immediate community (Anderson, 1982; Moos, 1987; Thapa et al., 2013). It is the psychosocial ambience of the school and consisting of the group dynamics that influence student learning and behavior (Johnson & Stevens, 2006; Lubienski et al., 2008; Reyes et al., 2012).

The bulk of research in this field reveals that there are three central motifs in the school climate construct: (a) the school's academic focus (growth mindset of the school); (b) the quality and consistency of social relationships within the school; and (c) shared goals, norms, and values described as acceptable and endorsed as proper school behavior (Fredericksen et al., 1968; Haynes et al., 1997; Hoy et al., 1998).

Researchers have also concluded that the quality of school climate may either hurt or

support desirable student outcomes. According to self-determination theorists (Connell & Wellborn, 1991), for students to have positive school outcomes, the psychological needs of competence, relatedness, and autonomy of both students and their teachers must first be satisfied. Thus, positive school climates are those that facilitate quality student-teacher engagement and relatedness which in turn increase student achievement, improve student attendance, reduce attrition, improve school safety, and strengthen student morale and discipline (National Center on Safe Supportive Learning Environments, 2011).

According to Bandura (1977), self-efficacy is an individual's self-assurance about their competence to successfully perform required tasks or that person's confidence in their ability that allows them to surmount challenges, to persist, and to achieve positive outcomes (Walker and Greene, 2009). The conclusion by theorists in this area of study is that high self-efficacy drives strong and active engagement in the learning process (Suraya & Ali, 2009; Pintrich et al., 1991). Students with high self-efficacy enjoy school and find that the learning process including rigorous academic demands drives their creative juices and the development of efficient learning strategies. Conversely, students with low self-efficacy, think negatively about school and find school tasks hard and unattainable. These students tend to avoid school and/or develop various forms of disruptive and avoidance behaviors (Liem et al., 2008; Suraya & Ali, 2009; Turner & Lapan, 2002).

Emergent themes from the literature on self-efficacy emphasize that it is strongly related to successful student outcomes and that it is a strong predictor of academic achievement as well as students' satisfaction with school (Domenech-Betoret et al., 2017; Simonsen & Rundmo, 2020). Relatedly, if students perceive their school climate as nurturing, constructive, and protective, this may lead them to identify with the school's positive climate and reflect this by developing their own positive self-efficacy and pursuance of academic excellence and social

positivity culminating in school satisfaction (Reynolds et al., 2017). Desirable school outcomes including student satisfaction is therefore a marriage of individual self-efficacy and collective-efficacy (Hoy et al., 2002).

School satisfaction has been defined as a student's cognitive -affective perception of their overall satisfaction with their school experiences (Lodi et al., 2019). The central theme emerging from various studies on school satisfaction is that it is a multifaceted construct (Konu & Rimpela, 2002; Wong & Siu, 2017, Lodi et al., 2019). According to Konu and Rimpela's School's Well-being Model, school satisfaction consists of four dimensions: school conditions, social relationships, self-fulfilment, and health status. These are also categorized respectively as having, loving, being, and state of health.

Review of literature on school satisfaction also reveals that school satisfaction is affected by variables such as self-efficacy and school climate (Huebner & McCullough, 2000) as well as academic performance, student engagement and teacher affect (Huebner & Gilman, 2006). Another important motif in school satisfaction is that it is an educational outcome that can be used to differentiate educational institutions from each other and become an effective marketing tool especially in the context of private schools and institutions of higher learning (Parasuraman et al., 1985; Waugh, 2002, Weerasinghe et al., 2017).

Intention to persist in school also referenced as School intention completion is defined as the likelihood that students will decide to complete their courses studies (Mallinckrodt, 1988). Research in this area suggests that the tendency to persist in school can be detected early if teachers and related personnel know what indicators to look for. Moreover, the earlier students' intention to persist in school is demonstrated, for example at the elementary level, the more likely it is that those students will successfully go on to high school and tertiary level education (Lamb & Markussen, 2011). This is due in part to early preventive measures being put in place

to avert later attrition. Generally, it has been found that elementary students with good grades (GPA  $\geq$  55%) are more likely to go on to high school than those with GPAs  $\leq$  13% (Burns, 2020; Lamb & Markussen, 2011).

Another area of consensus in the literature review on intention to persist in school is that a student's decision to drop out of school is usually not a sudden decision but the culmination of a long interplay of several personal and institutional factors that have become incongruent over time (Burns, 2020; Rumberger, 2017). Personal factors that impact school persistence include student self-efficacy, cognitive development, level of student engagement, individual well-being, and affective state. Institutional factors include school climate, pedagogical practices especially quality teacher-student interactions (QTSRs), school resources, and school-family interactions (Burns, 2020; Haugan et al., 2019; Martin & Dowson, 2009; Zimmer-Gembeck et al., 2006).

## Methodology

The present study employed a non-experimental, quantitative, transversal, and causal research design. The sample population for this research was 72 respondents out of 140 students at the total school population. This represents 51% of the population.

A total of five variables were investigated in this study: three independent and two dependent variables.

The independent variable, Mentorship as perceived by students, was measured by the Mentorship Effectiveness Scale which has a total of 12 items on a 7-point Likert scale.

The second independent variable, School climate as perceived by students, was measured by the Comprehensive School Climate Instrument (CSCI), composed of 13 items with a 5-point Likert Scale.

The third independent variable, Student self-efficacy, was measured by the Children's Perceived Self-Efficacy Scale and evaluated 15 items.

The Student Satisfaction scale was used to evaluate the dependent variable, Student satisfaction as perceived by students. This instrument consists of 20 items.

The dependent variable, High school completion intention, was evaluated by a 3 item, 5- point Likert scale instrument called the Intention to Persist vs. Drop out Scale.

The total number of survey items was 65 in addition to items used for capturing demographic data.

## Results

The participants were asked about their self-efficacy, level of school satisfaction, satisfaction with their mentorship relationship, and the school climate.

The regression analysis revealed that the school climate and self-efficacy, as perceived by students, together explained 40.3% of the variance in school satisfaction. Based on these results, the null hypothesis (H0) was rejected, and research hypothesis 1 was accepted.

The linear regression analysis also revealed that mentorship predicted 27.1% of the variance in the intention to persist in school. Based on this statistical result, the null hypothesis (H2) was rejected, and hypothesis 2 was accepted. Simple linear regression analysis also showed that school satisfaction predicted the intention to persist in school though it explained a mere 8.6% of the variance in the dependent variable. The null hypothesis 3 was rejected, and hypothesis 3 was accepted.

Path Analysis was employed to obtain secondary results which confirmed that school climate and self-efficacy are the best predictors of school satisfaction in this study. The model showed that school climate explained 43% of the variance in school satisfaction compared to

self-efficacy which explained 37% of the variance.

Self-efficacy alone is the best significant predictor of intention to persist in school as it described 43% of its variance. In contrast, mentorship accounted for 26% of the variance in intention to persist in school.

T -Test analyses revealed that there was a significant difference ( $p = .029$ ) in the perception of school climate by students who work ( $M = 3.90$ ) and those who don't work ( $M = 4.16$ ). This data suggests that students who do not work have a more positive perception of the BATA school climate than those who do work and attend school.

There was no significant difference ( $p = .000$ ) in the perception of intention to persist in school by students who work ( $M = 5.619$ ) and those who do not work ( $M = 6.032$ ) nor in the perception of mentorship for those who work ( $M = 5.716$ ) and those who do not work ( $M = 6.212$ ). Similarly, there was no significant difference in the perception of self-efficacy by those who work and those who do not work.

## **Discussion**

This study indicates that school climate and student-self efficacy are the chief factors influencing student satisfaction at BATA. Of the two, the most significant predictor of student satisfaction is school climate which explained 43% of the variance on school satisfaction. This finding is consistent with those of Ito and Smith (2006), Suldo et al. (2012), and Zullig et al. (2010), who found that student satisfaction is strongly connected to students' perception of their school climate and that this relationship varies in positivity when considering how much students like or dislike their school.

This study also identified which school climate factors students rated the highest. Item SC8 mentions that the teachers encouraged them to try their own ideas ( $M = 4.33$ ). Other

statements about school climate which were highly rated by students were: (1) the feeling that the adults in their school seem to work well with each other (SC4,  $M = 4.27$ ) and (2) the opinion that the adults in their school are good examples of the values that the school teaches such as respect, responsibility, and fairness” (SC2,  $M = 4.21$ ). These responses indicate that BATA students identify teachers and staff as key contributors to creating a safe and secure school climate and that students value not only positive teacher-student relationships, but also teacher-teacher relationships. Previous research has identified similar school climate factors as important determinants of positive school climate (Buckman et al., 2021; Kotok et al., 2016; Zullig et al., 2010).

Students’ satisfaction seems to be also highly related to their perception that what they are learning in school will have a positive influence on their future careers (SC15,  $M = 4.07$ ; SC20,  $M = 4.12$ ). This in accordance with Hatcher et al. (1992) who found that students view the learning process as an investment of time and effort that will eventually yield satisfactory dividends with respect to career opportunities and income earned later. The more time and energy invested in the learning process the higher the level of satisfaction expected. It should therefore be of prime importance to school administrators to early determine the factors that promote student satisfaction and nurture these factors if students are to have positive academic outcomes (Simonsen & Rundmo, 2020).

The current study also found that self-efficacy had a significant association with student satisfaction as it explained 37% of its variance. Previous studies have shown that students’ self-efficacy and school satisfaction are strongly correlated since a strong belief that school tasks can be successfully accomplished reduces student anxiety and increases learner well-being or satisfaction (Brown et al., 2019; Cummins & Tomy, 2011; Schunk & Mullen, 2013; Simonsen & Rundmo, 2020).

Data analysis of this study also indicated that BATA students have very strong convictions about the importance of high school as indicated by popular responses such as “it is important to go to high school” (SSE17,  $M = 4.78$ ); the belief that they will graduate from high school (SSE7,  $M = 4.72$ ); that they earn good grades when they try hard (SSE,  $M = 4.63$ ); and that they attend a good school (SSE8,  $M = 4.67$ ). These findings are congruent with earlier research which revealed that self-efficacy promotes student engagement and the development of academic efficiency which together result in student satisfaction (Domenech-Betoret et al., 2017; Greene et al., 2004; Turner & Lapan, 2002).

The exogenous variable that showed the most statistically significant influence on students' intention to persist in school was self-efficacy because it explained 40% of the variance on this variable. This finding is like that of previous researchers who have concluded that students with a high level of self-efficacy tend to experience higher levels of school satisfaction and are more likely to persist in school through to graduation (Brown et al., 2019; Simonsen & Rundmo, 2020). Similarly, other studies confirm that students with high self-efficacy are strongly engaged in learning (Liem et al., 2008; Majer, 2009; Thijs & Verkuyten, 2008). According to Bandura (2003), self-efficacy directly and indirectly increases positive student behaviors including wider and deeper participation in learning. Such factors are strongly correlated with student satisfaction which in turn results in students persisting in school. In a similar vane, Multan et al. (1991) found that the correlation between self-efficacy and student engagement is more significant among high school students than elementary school students.

In the current study, there was a weak effect of mentorship on school satisfaction ( $\beta = .02$ ). In contrast, there was a more significant effect of mentorship on intention to persist in school ( $\beta = .23$ ). This result is supported by Herrera et al. (2007) who stated that mentoring

increases positive high school outcomes including intention to persist in school. Likewise, according to Bruce and Bridgeland (2014), mentoring increases the likelihood of at-risk students persisting in school by 55% compared to their non-mentored peers. Overall, the influence of mentoring on school satisfaction and intention to persist in school may be small since the mentoring program at BATA is a new initiative and not all respondents in the survey were paired with mentors.

The present study also showed that there were some direct correlations among the exogenous variables. There was a correlation between mentorship and school climate ( $\beta = .26$ ) and between school climate and self-efficacy ( $\beta = .24$ ). These findings are supported by the research of other studies (Johnson & Stevens, 2006; Lubienski et al., 2008; Reyes et al., 2012) who posit that school climate consists of the psychosocial atmosphere of the school and the group interactions that impact student learning and functioning. Mentoring is one example of these multiple people interactions that impact school climate.

Mentoring has the potential to increase students' cognitive and social development, learning engagement, and successful school completion (Bruce & Bridgeland, 2014). Together these characteristics support a healthy school climate (Cohen et al., 2009; Suldo et al., 2012). The research of Ackerman and Gross (2018), and Wang et al. (2017) on self-efficacy showed that efficacious teachers and mentors tend to model positivity and inspire self-confidence whilst simultaneously engendering respect from students, administration, and colleagues. In turn, these wholesome attributes promote student self-efficacy and by extension create a positive school climate.

A study by Scribner (2019) found that there was no difference in the perception of school satisfaction among mentored and unmentored students, but this was prior to an intervention.

Post-intervention measures revealed that the perception of school satisfaction among mentored students was significantly greater than the perception of satisfaction among unmentored students. Perhaps there needs to be a similar mentoring intervention among BATA students with pre-and post-test measures to find out if mentoring truly impacts students' perception about school satisfaction. Alternately, it could be possible that the correlation between mentoring and school satisfaction could be indirect with some other variable acting as a mediating variable.

In another study by Ibáñez García et al. (2020), which sought to find out the degree of satisfaction reported by participants in two university high school mentorship programs in Spain it was discovered that there was no difference in the perceived level of satisfaction. However, the bulk of research on mentoring suggests that mentoring generally and specifically improves student outcomes at many different levels (Berk et al., 2005; Ibáñez García et al., 2020; Karcher et al., 2010).

Lastly, the current study revealed that the level of student perception of school climate was influenced by whether students worked. The study participants who did not work (non-working students) reported a higher level of student satisfaction than those who worked. This finding is in accordance with previous research which shows that the more quality time students invest in learning in a supportive school climate, the greater their level of satisfaction and self-efficacy (Cohen et al., 2009; Ito & Smith, 2006; Jia et al., 2016; Zullig et al., 2010).

### **Conclusions**

In this section, the conclusions documented for this research study are presented. These conclusions were synthesized by the researcher from the analysis of data done by regression analysis, path analysis, arithmetic means, and null hypotheses. It is concluded that:

1. School climate and student self-efficacy are significant predictors of school satisfaction and intention to persist in school.

2. Self-efficacy is the single best predictor of both school satisfaction and intention to persist in school.

3. Mentorship and school climate have a significant moderate effect on each other.

4. School climate and self-efficacy have a moderate effect on each other.

5. Mentorship has a significant influence on the intention to persist in school.

6. Hypotheses one, two, and three as proposed have a high level of value fit and are accepted. All null hypotheses have been rejected.

### **Recommendations**

Action plan recommendations for Boston Adult Technical Academy (BATA) to enhance students' school satisfaction and intention to persist in school are that the school's administration:

1. Establishes a cyclical assessment of the school climate to maintain and increase a supportive and nurturing school climate.

2. Performs a thorough assessment of its new mentorship program to find ways to both increase the effectiveness of the program and extend it to all students.

3. Develops and implements a mentorship intervention designed to train mentors to increase their mentoring capacity and teachers could also develop mentoring actions that enhance students' progress.

4. Teachers should design and establish multiple opportunities for building student self-efficacy.

5.offers students more flexible schedules and multiple alternate pathways of study to enhance their school satisfaction and encourage their intention to persist in school.

6.develops and establishes external partnerships that increase student participation in mentorships that make them more efficacious and that undergird their intention to persist in school.

7.trains all school personnel to improve service in all areas and thus increase student satisfaction and students' intention to persist in school.

APPENDIX A

INSTRUMENTS

## Mentorship

Source: Berk, R. A., Berg, J., Mortimer, R., Walton-Moss, B., & Yeo, T. P. (2005). Measuring the Effectiveness of Faculty Mentoring Relationships. *Academic Medicine*, 80(1), 66–71. Mentorship Effectiveness Scale (MES).

### Directions

The purpose of this scale is to evaluate the mentoring characteristics of whom he/she has had a professional, mentor/mentee relationship. Indicate the extent to which you agree or disagree with each statement listed below. Circle the number that corresponds to your response. Your responses will be kept confidential.

0=Strongly Disagree (SD)

1= Disagree (D)

2= Slightly disagree (SID)

3=Slightly Agree (SIA)

4= Agree (A)

5= Strongly Agree (SA)

6= Not Applicable (NA)

SAMPLE: My mentor was hilarious.

Item	0 SD	1 D	2 SID	3 SIA	4 A	5 SA	6 NA
My mentor was martble.							
My mentor demonstrated professional integrity.							
My mentor demonstrated content expertise in my area of need.							
My mentor was approachable.							
My mentor was supportive and encouraging.							
My mentor provided constructive and useful critiques of my work.							
My mentor motivated me to improve my work product.							
My mentor was helpful in providing directions and guidance on professional issues (e.g., networking)							
My mentor answered my questions satisfactorily (e.g., timely response, clear comprehensive)							
My mentor acknowledged my contributions appropriately (e.g. committee contributions, awards)							
My mentor suggested appropriate resources (e.g., experts, electronic contacts, source materials)							
My mentor challenged me to extend my abilities (e.g., risk taking, try a new professional activity, draft a section of an article							

## High School Intention Completion

Source: Hardre, P. L., & Reeve, J. (2003). A motivational model of rural students' intentions to persist in, versus drop out of, high school. *Journal of Educational Psychology, 95*(2), 347–356.

### Instruction

Please respond to each of the following statements by selecting the number that is most aligned with level of agreement or disagreement. Please be sure to respond to each of the questions (no items to be left blank).

1= Strongly Agree

2=Disagree

3=Neither agree nor disagree

4=Agree

5=Strongly Disagree

Item	1	2	3	4	5
I sometimes consider dropping out of school					
I intend to drop out of school					
I sometimes feel unsure about continuing my studies year after year					

### School Climate Scale

Source: The CSCI: The Comprehensive School Climate Inventory by The National School Climate Center (NSCC) (2013).

#### Instructions

Think about your experience in your school as you read each statement below. Then fill tick the box that best describes how much you agree or disagree with each statement.

	Items	Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
1	My school tries to get students to join afterschool activities.					
2	Adults in my school are good examples of the values the school teaches (like respect, responsibility, and fairness)					
3	In my school, adults teach me how to express emotions in proper ways.					
	Adults in my school seem to work well with one another.					
5	Students in my school respect each other's differences (for example, gender, race, culture, disability, sexual orientation, learning differences).					
6	In my school, we learn ways to resolve disagreements so that everyone can be satisfied with the outcome.					
7	My school tries to get all families to be part of school events					
8	My teachers encourage me to try out my own ideas					
9	I have been insulted, teased, harassed or otherwise verbally abused more than once in my school.					
10	In my school, we talk about the way our actions will affect others					
11	Many students in my school will try to stop other students from threatening or harassing others using social media.					
12	Students have friends at school they can turn to if they have questions about homework					
13	In my school, we talk about ways to be a good person.					

## Student Satisfaction Scale

Source: Lodi et al. (2019) High-School Satisfaction Scale (H-Sat Scale): Evaluation of Contextual Satisfaction in Relation to High-School Students' Life Satisfaction.

### Instructions

Please respond to each of the following statements by selecting the statement that is most aligned with your level of satisfaction about your school (BATA). Please be sure to respond to each of the questions (no items to be left blank).

#### School Satisfaction Scale

	I Am Satisfied...	Not at all	Slightly	Moderately	Very	Extremely
1	About choosing this school.					
2	Because the classrooms where we carry out our lessons are comfortable.					
3	Of the relationships with my classmates.					
4	About my way of studying.					
5	Because my studies will be useful for my educational and/or professional future.					
6	Because I like what I am studying in this school.					
7	Of the school's equipment.					
8	Because I can study well with my classmates.					
9	About the school goals I am achieving.					
10	Because I feel that my studies will be useful for my educational and/or professional future career.					
11	For having undertaken this school.					
12	About the services for the students (secretariat, library, gym, cafeteria, etc.).					
13	Because I can count on the help of my classmates.					
14	For my motivation in my studies.					
15	Because this school will have a positive effect on my future professional career.					
16	Because, after all, this school's courses suit me.					
17	About the availability of those who work in the school toward the students.					
18	About my friendship with my classmates.					
19	About my school results.					
20	Because what I'm learning in this school will be useful to find a good job.					

**Children’s Perceived Academic Self-Efficacy subscale from The Morgan-Jinks Student Efficacy Scale (MJSES)**

Source: Jinks, J. L., & Morgan, V. L. (1999). Children’s perceived academic self-efficacy: An inventory scale. *The Clearing House*, 72 (4), 224–230.

**Instructions**

Think about how you feel about your learning experience here at BATA. Please respond to each of the following statements by selecting the statement that is most aligned with the way you really feel about your own learning about your own learning. Please be sure to respond to each of the questions (no items to be left blank).

	Really Agree 1	Kind of Agree 2	Neutral (neither agree nor disagree) 3	Kind of disagree 4	Really disagree 5
I work hard in school.					
I could get the best grades in class if I tried enough.					
Most of my classmates like to do Math because it is easy.					
I would get better grades if my teacher liked me better.					
Most of my classmates work harder on their homework than I do.					
I am a good science student.					
I will graduate from high school.					
I go to a good school.					
I always get good grades when I try hard.					
Sometimes I think an assignment is easy when the other students in the class think it is hard.					
I am a good social studies student.					
Adults who have good jobs probably were good students when they were kids.					
When I am old enough, I will go to college.					
I am one of the best students in my class.					
No one cares if I do well in school.					
My teachers think I am smart.					
It is important to go to high school.					
I am a good Math Student.					
My classmates usually get better grades than I do.					
What I learn in school is not important.					
I usually understand my homework assignments.					
I usually do not get good grades in Math because it is too hard.					
It does not matter if I do well in school.					
Students who do better than I do get more help from the teacher than I do.					
I am a good reading student.					
It is not hard for me to get good grades in school.					
I am smart.					
I will quit school as soon as I can.					

## APPENDIX B

### DEMOGRAPHIC INFORMATION

## Demographic information

### Frequencies

		Statistical
1. Age		
N	Valid	72
	Lost	0
Mean		20.43
Standard Desviation		2.115
symmetry		3.397
Standard assymetry error		.283
Kurtosis		13.311
Standard Kurtosis error		.559

1. Age					
		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	18	2	2.8	2.8	2.8
	19	17	23.6	23.6	26.4
	20	31	43.1	43.1	69.4
	21	16	22.2	22.2	91.7
	22	2	2.8	2.8	94.4
	24	1	1.4	1.4	95.8
	28	1	1.4	1.4	97.2
	29	1	1.4	1.4	98.6
	31	1	1.4	1.4	100.0
	Total		72	100.0	100.0

## Frequencies

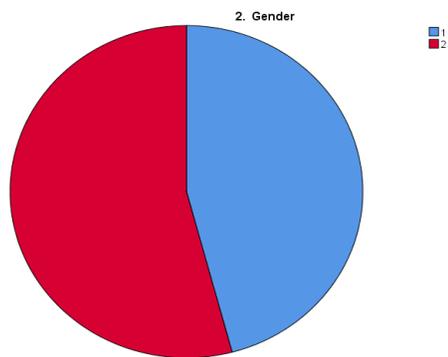
### Statistical

2. Gender

N	Valid	72
	Lost	0

### 2. Gender

		<i>n</i>	%	Valid percentage	Cumulative percentage
Valid	1 Male	33	45.8	45.8	45.8
	2 Female	39	54.2	54.2	100.0
	Total	72	100.0	100.0	



## Frequencies

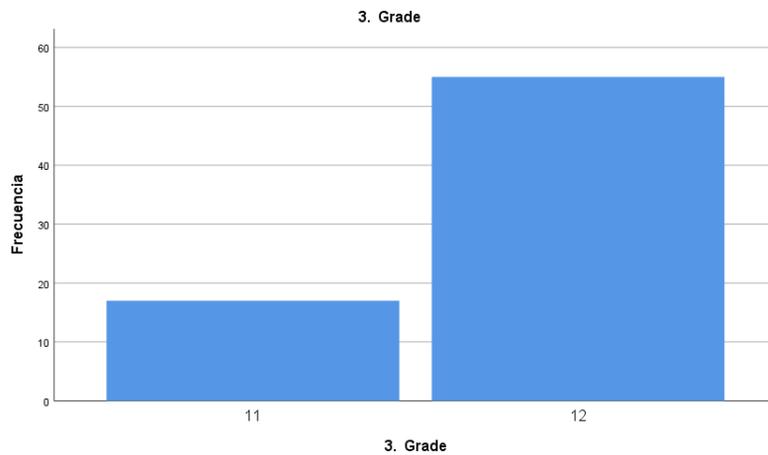
### Statistical

3. Grade

N	Válid	72
	Lost	0

### 3. Grade

		n	%	Valid percentage	Cumulative percentage
Válid	11	17	23.6	23.6	23.6
	12	55	76.4	76.4	100.0
	Total	72	100.0	100.0	



## Frequencies

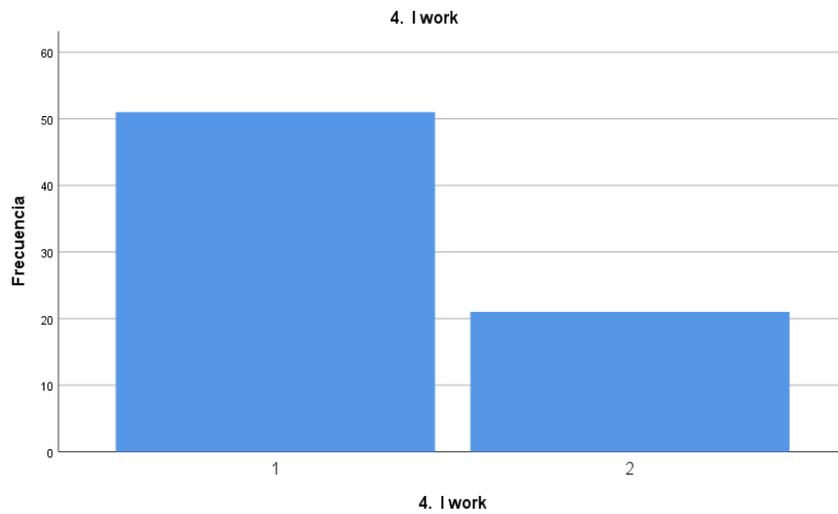
### Statistical

4. I work

N	Valid	72
	Lost	0

### 4. I work

		n	%	Valid percentage	Cumulative percentage
Valid	1= Yes	51	70.8	70.8	70.8
	2= Not	21	29.2	29.2	100.0
	Total	72	100.0	100.0	



## Frequencies

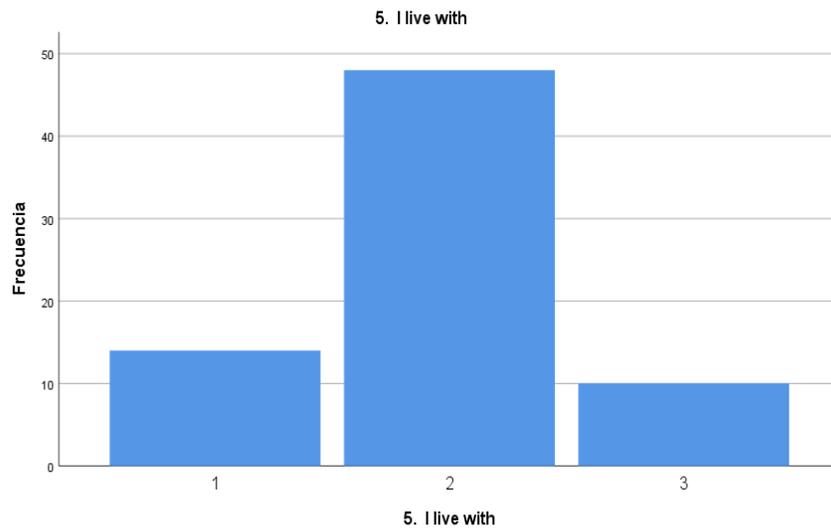
### Statistical

5. I live with

N	Valid	72
	Lost	0

### 5. I live with

		n	%	Valid percentage	Cumulative percentage
Valid	1= Myself	14	19.4	19.4	19.4
	2= Parents	48	66.7	66.7	86.1
	3= Others	10	13.9	13.9	100.0
	Total	72	100.0	100.0	



## Frequencies

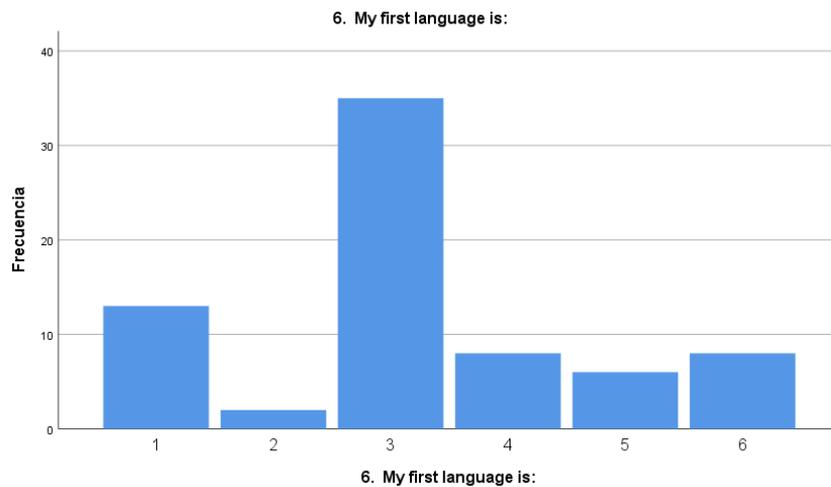
### Statistical

6. My first language is:

N	Valid	72
	Lost	0

### 6. My first language is:

		n	%	Valid percentage	Cumulative percentage
Valid	1= English	13	18.1	18.1	18.1
	2= French	2	2.8	2.8	20.8
	3= Spanish	35	48.6	48.6	69.4
	4= Haitian Creole	8	11.1	11.1	80.6
	5= Portuguese	6	8.3	8.3	88.9
	6= Others	8	11.1	11.1	100.0
	Total	72	100.0	100.0	



## APPENDIX C

### RELIABILITY OF VARIABLES

## Reliability of variables

### Reliability MENTORSHIP

#### Case Processing Summary

		N	%
Cases	Valid	72	100.0
	Excluded	0	.0
	Total	72	100.0

#### Reliability statistics

Chronbach's alpha	N of elements
.979	12

#### Total Item Statistics

	Scale average if the item has been deleted	Scale variance if the item has been suppressed	Corrected total item correlation	Cronbach's alpha if the item has been deleted
1. My mentor is martble.	64.43	146.333	.835	.978
2. My mentor demonstrates professional integrity.	64.33	147.915	.895	.977
3. My mentor demonstrated content expertise in my area of need.	64.33	146.169	.954	.975
4. My mentor is approachable (friendly, easy to talk to ).	64.28	147.443	.911	.976
5. My mentor is supportive and encouraging.	64.40	144.019	.897	.977
6. My mentor makes useful suggestions about how I can improve my school work.	64.29	146.717	.902	.976
7. My mentor motivates me to improve my work product.	64.33	147.324	.908	.976
8. My mentor is helpful in providing directions and guidance on professional (school related) issues e.g., networking with peers.	64.47	144.985	.851	.978
9. My mentor answers my questions satisfactorily (e.g. suggests workable solutions, timely responses etc.)	64.46	143.829	.862	.977
10. My mentor acknowledges my contributions appropriately (e.g. Committee contributions, awards etc.)	64.50	144.225	.843	.978
11. My mentor suggests appropriate resources (e.g. suggests experts that I could talk to or online resources I can use).	64.44	142.842	.931	.976
12. My mentor challenges me to extend my abilities (e.g. trying a new approach to doing an assignment, or completing homework).	64.32	150.530	.828	.978

## Reliability SCHOOL CLIMATE Case Processing Summary

	N	%
Valid	70	97.2
Excluded	2	2.8
Total	72	100.0

### Reliability statistics

Cronbach's alpha	N of elements
.815	13

### Item total statistics

	Scale average if the item has been deleted	Scale variance if the element has been suppressed	Corrected total item correlation	Cronbach's alpha if the element has been deleted
13. My school tries to get students to join after-school activities.	46.09	31.877	.477	.800
14. Adults in my school are good examples of the values the school teaches (like respect, responsibility, and fairness)	45.69	33.871	.394	.807
15. In my school, adults teach me how to express emotions in proper ways.	46.01	31.377	.592	.790
16. Adults in my school seem to work well with each other.	45.60	34.243	.525	.800
17. Students in my school respect each other's differences (e.g. gender, race, culture, disability, sexual orientation, learning differences)	45.79	33.765	.454	.802
18. In my school, we learn ways to resolve disagreements so that everyone can be satisfied with the outcome (result).	45.76	34.534	.585	.799
19. My school tries to get all families to be part of school events.	45.97	31.883	.645	.788
20. My teachers encourage me to try out my own ideas.	45.54	33.121	.619	.793
21. I have been insulted, teased, harassed or otherwise verbally abused (bullied) more than once in my school.	47.71	34.294	.127	.849
22. In my school, we talk about the way our actions will affect others.	46.06	31.678	.535	.795
23. Many students in my school will try to stop other students from threatening or harassing (bullying) others using social media.	46.51	32.659	.349	.814
24. Students have friends at school they can turn to if they have questions about homework.	45.90	32.903	.619	.792
25. In my school, we talk about ways to be a good person.	45.83	33.477	.552	.797

## Reliability STUDENT SELF-EFFICACY

Casos	Válido	69	95.8
	Excluido <sup>a</sup>	3	4.2
	Total	72	100.0

### Reliability statistics

Cronbach's alpha	N of elements
.848	28

### Item total statistics

	Scale average if the item has been deleted	Scale variance if the element has been suppressed	Corrected total item correlation	Cronbach's alpha if the element has been deleted
SSE1. I work hard in school.	65.54	190.870	.373	.843
SSE2. I could get the best grades in class if I tried enough.	65.78	191.467	.430	.842
SSE3. Most of my classmates like to do Math because it is easy.	64.55	186.869	.402	.842
SSE4. I would get better grades if my teacher liked me better.	63.91	183.139	.429	.842
SSE5. Most of my classmates work harder on their homework than I do.	64.59	186.362	.441	.841
SSE6. I am a good science student.	65.09	183.051	.539	.838
SSE7. I will graduate from high school.	65.94	194.320	.279	.846
SSE8. I go to a good school.	65.88	194.339	.357	.844
SSE9. I always get good grades when I try hard.	65.86	194.273	.369	.844
SSE10. Sometimes I think an assignment is easy when the other students in the class think it is hard.	64.91	180.728	.643	.834
SSE11. I am a good social studies student.	65.25	182.630	.627	.836
SSE12. Adults who have good jobs probably were good students when they were kids.	64.75	185.835	.433	.841
SSE13. When I am old enough, I will go to college.	65.12	185.839	.472	.840
SSE14. I am one of the best students in my class.	64.84	178.548	.671	.833
SSE15. No one cares if I do well in school.	63.80	180.811	.504	.838
SSE16. My teachers think I am smart.	65.32	190.338	.377	.843
SSE17. It is important to go to high school.	66.01	197.279	.217	.847
SSE18. I am a good Math student.	64.72	182.997	.469	.840
SSE19. My class mates usually get better grades than I do.	64.49	193.960	.206	.849
SSE20. What I learn in school is not important.	63.41	194.715	.141	.852
SSE21. I usually understand my homework assignments.	65.41	187.980	.523	.840
SSE22. I usually do not get good grades in Math because it is hard.	64.06	201.585	-.034	.858
SSE23. It does not matter if I do well in school.	63.32	196.573	.091	.854
SSE24. Students who do better than I do get more help from the teacher than I do.	63.62	187.856	.373	.843
SSE25. I am a good reading student.	65.19	190.155	.439	.842
SSE26. It is not hard for me to get good grades in school.	64.99	187.573	.421	.842
SSE27. I am mart.	65.48	190.488	.368	.843
SSE28. I will quit school as soon as I can.	63.43	189.896	.265	.848

## RELIABILITY INTENTION TO PERSIST IN SCHOOL

### Case Processing Summary

	N	%
Valid	72	100.0
Excluded	0	.0
Total	72	100.0

### Reliability statistics

Cronbach's alpha	N of elements
.823	3

### Item total statistics

	Scale average if the item has been deleted	Scale variance if the element has been suppressed	Corrected total item correlation	Cronbach's alpha if the element has been deleted
IPS1. I sometimes consider dropping out of school.	4.67	7.859	.729	.704
IPS2. I sometimes feel unsure about continuing my studies year after year.	4.31	9.736	.595	.835
IPS3. I intend to drop out of school.	5.19	9.342	.724	.716

## SCHOOL SATISFACTION RELIABILITY

### Case Processing Summary

		N	%
Cases	Valid	69	95.8
	Excluded	3	4.2
	Total	72	100.0

### Reliability statistics

Chronbach's alpha	N of elements
.955	20

### Item Total Statistics

	Scale average if the item has been deleted	Scale variance if the element has been suppressed	Corrected total item correlation	Cronbach's alpha if the element has been deleted
SS1. I am satisfied that I chose to come to this school.	72.43	201.514	.741	.952
SS2. I am satisfied because the classrooms where we carry out our lessons are comfortable.	72.65	200.377	.796	.952
SS3. I am satisfied with my relationships with my classmates.	72.81	196.832	.795	.951
SS4. I am satisfied about my ways of studying.	72.90	199.622	.659	.953
SS5. I am satisfied that my studies will be useful for my educational and/or professional future career.	72.65	201.995	.651	.953
SS6. I am satisfied because I like what I am studying in this school.	72.91	195.492	.800	.951
SS7. I am satisfied with the school's equipment (textbooks, furniture, chalkboard, computers etc.)	72.77	198.828	.691	.953
SS8. I am satisfied because I can study well with my classmates.	72.91	200.522	.721	.952
SS9. I am satisfied with the school goals I am achieving.	73.01	197.897	.698	.953
SS10. I am satisfied because I feel that my studies will be useful for my educational/professional future career.	72.77	197.651	.712	.953
SS11. I am satisfied for having undertaken this school (coming to this school).	72.58	200.218	.764	.952
SS12. I am satisfied about the school services for the students (cafeteria, gym, library, administrative offices etc.)	73.07	195.980	.750	.952
SS13. I am satisfied because I can count on the help of my classmates.	72.99	197.191	.688	.953
SS14. I am satisfied for motivation in my studies.	72.94	201.026	.663	.953
SS15. I am satisfied because this school will have a positive effect on my future professional career.	72.51	205.401	.664	.953
SS16. I am satisfied because after all, this school's courses suit me.	72.78	201.290	.766	.952
SS17. I am satisfied about the availability of those who work in the school towards the students. (Students have access to those who work in the school).	72.74	203.402	.626	.954
SS18. I am satisfied about my friendship with my classmates.	72.75	199.865	.649	.954
SS19. I am satisfied about my school results.	72.87	201.027	.598	.954
SS20. I am satisfied that what I am learning in this school will be useful to find a good job.	72.51	203.018	.676	.953

APPENDIX D

DESCRIPTIVE INFORMATION

## Descriptive Information

### Descriptive: Mentorship

	Descriptive statistics			Asymmetry		Kurtosis	
	N	Mean	Desv. Deviation	Statistics	Desv. Error	Statistical	Desv. Error
M1. My mentor is accessible.	72	5.81	1.263	-1.476	.283	3.892	.559
M2. My mentor demonstrates professional integrity.	72	5.90	1.115	-1.244	.283	3.541	.559
M3. My mentor demonstrated content expertise in my area of need.	72	5.90	1.128	-1.197	.283	3.269	.559
M4. My mentor is approachable (friendly, easy to talk to).	72	<b>5.96</b>	1.119	-1.468	.283	3.955	.559
M5. My mentor is supportive and encouraging.	72	5.83	1.289	-1.465	.283	2.883	.559
M6. My mentor makes useful suggestions about how I can improve my schoolwork.	72	5.94	1.161	-1.276	.283	2.963	.559
M7. My mentor motivates me to improve my work product.	72	5.90	1.128	-1.258	.283	3.361	.559
M8. My mentor is helpful in providing directions and guidance on professional (school related) issues e.g., networking with peers.	72	5.76	1.305	-1.188	.283	1.852	.559
M9. My mentor answers my questions satisfactorily (e.g., suggests workable solutions, timely responses etc.)	72	5.78	1.345	-1.438	.283	2.821	.559
M10. My mentor acknowledges my contributions appropriately (e.g., Committee contributions, awards etc.)	72	<b>5.74</b>	1.353	-1.221	.283	1.771	.559
M11. My mentor suggests appropriate resources (e.g. suggests experts that I could talk to or online resources I can use).	72	5.79	1.299	-1.185	.283	1.848	.559
M12. My mentor challenges me to extend my abilities (e.g., trying a new approach to doing an assignment, or completing homework).	72	5.92	1.071	-.466	.283	-.835	.559
N válido (por lista)	72						

## Descriptive: SCHOOL CLIMATE

	Descriptive statistics						
	N	Mean	Desv. Deviation	Asymmetry		Curtosis	
				Statistical	Desv. Error	Statistical	Desv. Error
SC1. My school tries to get students to join after-school activities.	72	3.79	.992	-.989	.283	1.032	.559
SC2. Adults in my school are good examples of the values the school teaches (like respect, responsibility, and fairness)	72	4.21	.804	-1.738	.283	5.418	.559
SC3. In my school, adults teach me how to express emotions in proper ways.	72	3.88	.903	-1.164	.283	1.851	.559
SC4. Adults in my school seem to work well with each other.	71	4.27	.585	-.557	.285	1.994	.563
SC5. Students in my school respect each other's differences (e.g., gender, race, culture, disability, sexual orientation, learning differences)	72	4.11	.742	-1.032	.283	3.033	.559
SC6. In my school, we learn ways to resolve disagreements so that everyone can be satisfied with the outcome (result).	72	4.14	.512	.222	.283	.589	.559
SC7. My school tries to get all families to be part of school events.	72	3.93	.793	-.397	.283	-.190	.559
SC8. My teachers encourage me to try out my own ideas.	72	<b>4.33</b>	.650	-.774	.283	1.047	.559
SC9. I have been insulted, teased, harassed or otherwise verbally abused (bullied) more than once in my school.	72	3.82	1.397	-.815	.283	-.804	.559
SC10. In my school, we talk about the way our actions will affect others.	71	3.83	.941	-1.028	.285	1.195	.563
SC11. Many students in my school will try to stop other students from threatening or harassing (bullying) others using social media.	72	<b>3.35</b>	1.128	-.728	.283	-.283	.559
SC12. Students have friends at school they can turn to if they have questions about homework.	72	3.99	.682	-.532	.283	.868	.559
SC13. In my school, we talk about ways to be a good person.	72	4.07	.678	-.364	.283	.219	.559
N valid (per list)	70						

## Descriptive: STUDENT SELF-EFFICACY

### Descriptive statistics

	N	Mean	Desv. Deviation	Asymmetry		Curtosis	
				Statistical	Desv. Error	Statistical	Desv. Error
SSE1. I work hard in school.	72	4.32	.976	-1.623	.283	2.506	.559
SSE2. I could get the best grades in class if I tried enough.	72	4.56	.820	-2.151	.283	5.020	.559
SSE3. Most of my classmates like to do Math because it is easy.	72	3.35	1.235	-.283	.283	-.729	.559
SSE4. I would get better grades if my teacher liked me better.	72	<b>2.74</b>	1.453	.222	.283	-1.284	.559
SSE5. Most of my classmates work harder on their homework than I do.	72	3.36	1.166	-.420	.283	-.352	.559
SSE6. I am a good science student.	72	3.85	1.206	-1.084	.283	.417	.559
SSE7. I will graduate from high school.	72	4.72	.876	-3.562	.283	12.376	.559
SSE8. I go to a good school.	72	4.67	.712	-2.782	.283	9.666	.559
SSE9. I always get good grades when I try hard.	72	4.63	.701	-1.850	.283	2.726	.559
SSE10. Sometimes I think an assignment is easy when the other students in the class think it is hard.	72	3.72	1.153	-.564	.283	-.520	.559
SSE11. I am a good social studies student.	72	4.01	1.068	-1.027	.283	.706	.559
SSE12. Adults who have good jobs probably were good students when they were kids.	72	3.53	1.222	-.495	.283	-.550	.559
SSE13. When I am old enough, I will go to college.	72	3.86	1.190	-.806	.283	-.184	.559
SSE14. I am one of the best students in my class.	72	3.62	1.238	-.387	.283	-.878	.559
SSE15. No one cares if I do well in school.	72	3.46	1.424	-.471	.283	-1.107	.559
SSE16. My teachers think I am smart.	72	4.11	1.015	-1.227	.283	1.551	.559
SSE17. It is important to go to high school.	72	<b>4.78</b>	.697	-3.783	.283	15.440	.559
SSE18. I am a good Math student.	72	3.51	1.363	-.527	.283	-.867	.559
SSE19. My class mates usually get better grades than I do.	72	2.75	1.160	.063	.283	-.499	.559
SSE20. What I learn in school is not important.	72	3.85	1.370	-.933	.283	-.457	.559
SSE21. I usually understand my homework assignments.	72	4.18	.924	-1.033	.283	.811	.559
SSE22. I usually do not get good grades in Math because it is hard.	71	3.18	1.313	-.271	.285	-1.072	.563
SSE23. It does not matter if I do well in school.	71	3.94	1.382	-1.098	.285	-.205	.563
SSE24. Students who do better than I do get more help from the teacher than I do.	72	3.60	1.218	-.473	.283	-.613	.559
SSE25. I am a good reading student.	72	3.99	.911	-.546	.283	.008	.559
SSE26. It is not hard for me to get good grades in school.	72	3.72	1.178	-.767	.283	-.086	.559
SSE27. I am smart.	72	4.25	1.031	-1.556	.283	2.252	.559
SSE28. I will quit school as soon as I can.	71	3.77	1.386	-.676	.285	-.909	.563
N valid (per list)	69						

Likert Scale: 1(really disagree), 2 (disagree), 3(neutral), 4(agree), 5(really agree).

## Descriptive: INTENTION TO PERSIST IN SCHOOL

### Descriptive statistics

	N	Mean	Desv. Deviation	Asymmetry		Curtosis	
				Statistical	Desv. Error	Statistical	Desv. Error
IPS1. I sometimes consider dropping out of school.	72	5.58	1.813	-.896	.283	-.464	.559
IPS2. I sometimes feel unsure about continuing my studies year after year.	72	5.22	1.646	-.211	.283	-1.419	.559
IPS3. I intend to drop out of school.	72	<b>6.11</b>	1.543	-1.468	.283	.724	.559
N valid (per list)	72						

Likert Scale: 1(completely disagree), 2(moderately agree), 3(slightly agree), 4(neutral), 5(agree), 6(strongly agree), 7(completely agree).

## Descriptive: STUDENT SATISFACTION

	Descriptive statistics			Asymmetry		Curtosis	
	N	Mean	Desv. Deviation	Statistics	Desv. Error	Statistics	Desv. Error
SS1. I am satisfied that I chose to come to this school.	72	<b>4.13</b>	.948	-1.071	.283	.856	.559
SS2. I am satisfied because the classrooms where we carry out our lessons are comfortable.	71	3.96	.869	-.589	.285	-.187	.563
SS3. I am satisfied with my relationships with my classmates.	72	3.76	1.068	-.722	.283	.125	.559
SS4. I am satisfied about my ways of studying.	72	3.69	1.121	-.659	.283	-.310	.559
SS5. I am satisfied that my studies will be useful for my educational and/or professional future career.	72	3.94	.991	-.868	.283	.229	.559
SS6. I am satisfied because I like what I am studying in this school.	72	3.71	1.067	-.601	.283	-.316	.559
SS7. I am satisfied with the school's equipment (textbooks, furniture, chalkboard, computers etc.)	72	3.83	1.088	-.874	.283	.243	.559
SS8. I am satisfied because I can study well with my classmates.	72	3.71	.941	-.316	.283	-.724	.559
SS9. I am satisfied with the school goals I am achieving.	72	3.61	1.108	-.577	.283	-.391	.559
SS10. I am satisfied because I feel that my studies will be useful for my educational/professional future career.	72	3.83	1.113	-.857	.283	.070	.559
SS11. I am satisfied for having undertaken this school (coming to this school).	71	4.03	.910	-.642	.285	-.375	.563
SS12. I am satisfied about the school services for the students (cafeteria, gym, library, administrative offices etc.)	72	<b>3.56</b>	1.124	-.570	.283	-.339	.559
SS13. I am satisfied because I can count on the help of my classmates.	72	3.61	1.145	-.397	.283	-.869	.559
SS14. I am satisfied for motivation in my studies.	72	3.68	1.005	-.514	.283	-.055	.559
SS15. I am satisfied because this school will have a positive effect on my future professional career.	71	4.07	.816	-.618	.285	-.047	.563
SS16. I am satisfied because after all, this school's courses suit me.	72	3.81	.882	-.616	.283	.475	.559
SS17. I am satisfied about the availability of those who work in the school towards the students (Students have access to those who work in the school).	72	3.81	1.002	-.805	.283	.371	.559
SS18. I am satisfied about my friendship with my classmates.	72	3.83	1.088	-.604	.283	-.633	.559
SS19. I am satisfied about my school results.	72	3.71	1.106	-.869	.283	.200	.559
SS20. I am satisfied that what I am learning in this school will be useful to find a good job.	72	4.12	.887	-.749	.283	-.216	.559
N válido (por lista)	69						

## APPENDIX E

### HYPOTHESES TESTS

# Hypothesis Test 1

## Regression

(2 lines were eliminated because they were outliers. Then, the sample were 70).

### Variables entered/eliminated<sup>a</sup>

Model	Variables entered	Variables eliminated	Method
1	School Climate		.By steps (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-para-delete >= .100).
2	Self- Efficacy		.By steps (Criteria: Probability-of-F-to-enter <= .050, Probability of F to eliminate >= .100).

a. Dependent variable: School satisfaction

## Assumption

### 1- Independence of residuals

#### Summary of model

Model	R	R <sup>2</sup>	R <sup>2</sup> adjusted	Standard error of estimation	Durbin-Watson
1	.524 <sup>a</sup>	.274	.263	.64721	
2	.635 <sup>b</sup>	.403	.385	.59127	2.426

a. Predictor: (Constant), School climate

b. Predictors Constant), School climate, Self-efficacy

c. Dependent variable: School satisfaction

ANOVA <sup>a</sup>						
Modelo		Sum of squares	gl	Quadratic mean	F	Sig.
1	Regression	10.755	1	10.755	25.677	.000 <sup>b</sup>
	Residual	28.484	68	.419		
	Total	39.239	69			
2	Regression	15.816	2	7.908	22.620	.000 <sup>c</sup>
	Residual	23.423	67	.350		
	Total	39.239	69			

Dependent variable: School satisfaction

b. Predictor: (Constant), School climate

c. Predictors: (Constant), School climate, Self-efficacy

## 2- Non-Collinearity

Coefficients <sup>a</sup>								
Model		Non-standardized coefficients		Standardized coefficients	t	Sig.	Collinear statistics	
		B	Desv. Error	Beta			Tolerance	VIF
1	(Constant)	.385	.682		.565	.574		
	School climate	.863	.170	.524	5.067	.000	1.000	1.000
2	(Constant)	-1.281	.762		-1.681	.097		
	School climate	.714	.160	.433	4.449	.000	.940	1.063
	Self- efficacy	.586	.154	.370	3.805	.000	.940	1.063

a. Dependent variable : School satisfaction

Variables excluded <sup>a</sup>								
Model		In beta	t	Sig.	Partial Correlation	collinearity statistics		
						Tolerance	VIF	Minimal Tolerance
1	Self-efficacy	.370 <sup>b</sup>	3.805	.000	.422	.940	1.063	.940

a. Dependent variable: School satisfaction

b. Predictors in the model: (Constant), School climate

### Collinearity statistics

Model	Dimension	Self-value	Condition Index	Proportions of variance		
				(Constant)	School climate	Self-efficacy
1	1	1.994	1.000	.00	.00	
	2	.006	17.584	1.00	1.00	
2	1	2.984	1.000	.00	.00	.00
	2	.011	16.826	.01	.49	.75
	3	.006	22.878	.99	.51	.25

a. Dependent variable: School satisfaction

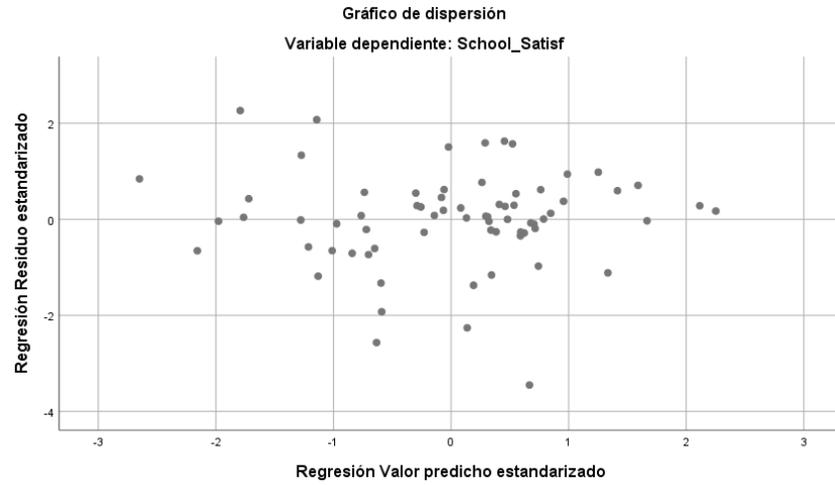
### Residual Statistics

	Minimal	Maximum	Mean	Desv. Deviation	N
Forecasted value	2.5517	4.8984	3.8205	.47877	70
Residual	-2.03957	1.33811	.00000	.58263	70
Desv. Forecasted value	-2.650	2.251	.000	1.000	70
Desv. Residual	-3.449	2.263	.000	.985	70

a. Dependent variable: School satisfaction

### 3 – Normality of residuals

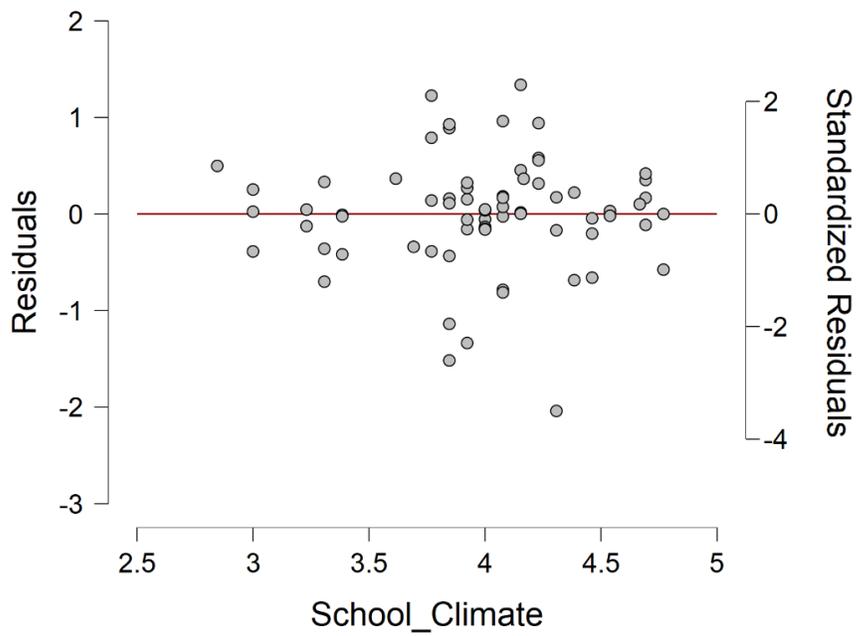
## 0- Homocedasticity



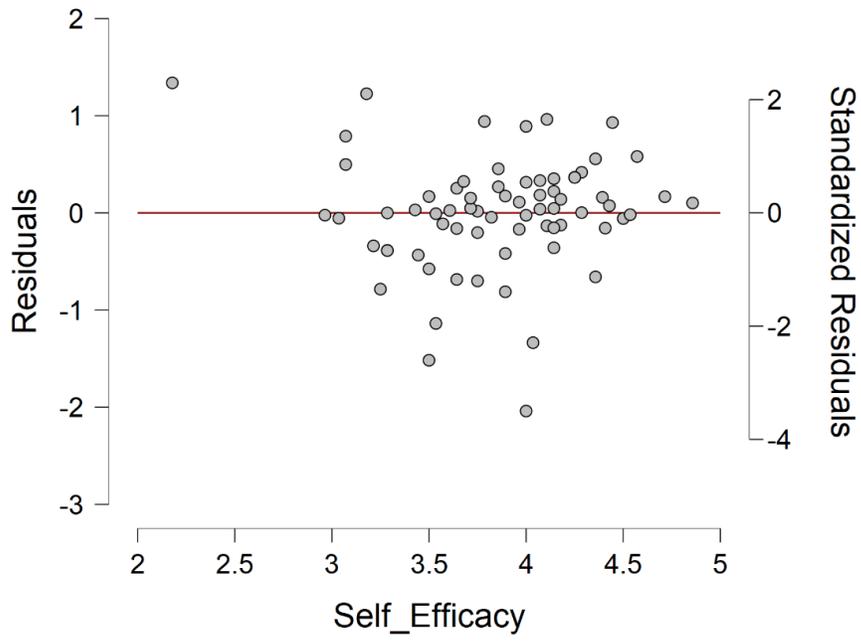
## 5- Linearity

Residuals vs. Covariates

Residuals vs. School Climate



### Residuals vs. Self-Efficacy



## Hypothesis Test 2

### Regression

#### Variables entered/eliminated

Model	Variables entered	Variables eliminated	Method
1	Self-Efficacy		By steps (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-delete >= to-delete >= .100).
2	Mentorship		By steps (Criteria: Probability-of-F-for-enter <= .050, Probability-of-F-to-delete >= .100).

a. Dependent variable: Intention to persist in school

#### Summary of model

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Standard estimation error	Durbin-Watson
1	.449 <sup>a</sup>	.201	.190	1.18294	
2	.521 <sup>b</sup>	.271	.249	1.13845	.015

a. Predictors: (Constant), Self – Efficacy

b. Predictors: (Constant), Self – Efficacy, Mentorship

c. Variable dependent: Intention to persist in school

#### ANOVA<sup>a</sup>

Model		Sum of the squares	gl	Quadratic mean	F	Sig.
1	Regression	23.993	1	23.993	17.146	.000 <sup>b</sup>
	Residual	95.156	68	1.399		
	Total	119.149	69			
2	Regression	32.313	2	16.157	12.466	.000 <sup>c</sup>
	Residual	86.836	67	1.296		
	Total	119.149	69			

a. Dependent variable: Intention to persist in school

b. Predictor: (Constant), Self- efficacy

c. Predictors: (Constant), Self- efficacy, Mentorship

#### Coefficients

Model		Non standardized coefficients		Standardized coefficients	t	Sig.	Colinear Statistics	
		B	Desv. Error				Tolerance	VIF
1	(Constant)	.971	1.161		.837	.406		
	Self-efficacy	1.238	.299	.449	4.141	.000	1.000	1.000

2	(Constant)	-.718	1.301		-.552	.583		
	Self-efficacy	1.197	.288	.434	4.154	.000	.997	1.003
	Mentorship	.315	.124	.265	2.534	.014	.997	1.003

a. Dependent variable: Intention to persist in school

### Excluded variables

Model		In beta	t	Sig.	Partial correlation	Collinear statistics		
						Tolerance	VIF	Minimum Tolerance
1	Mentorship	.265 <sup>b</sup>	2.534	.014	.296	.997	1.003	.997
	School Climate	.218 <sup>b</sup>	1.990	.051	.236	.940	1.063	.940
2	School Climate	.158 <sup>c</sup>	1.434	.156	.174	.879	1.138	.879

a. Dependent variable: Intention to persist in school

b. Predictors in the model: (Constant), Self- efficacy

c. Predictors in the model: (Constant), Self-efficacy, Mentorship

### Diagnoses of collinearity <sup>10</sup>

Model	Dimension	Self-value	Condition Index	Proportions of variance		
				(Constant)	Self-Efficacy	Mentorship
1	1	1.993	1.000	.00	.00	
	2	.007	16.362	1.00	1.00	
2	1	2.968	1.000	.00	.00	.00
	2	.025	10.906	.03	.17	.87
	3	.007	20.987	.97	.83	.13

a. Dependent variable: Intention to persist in school

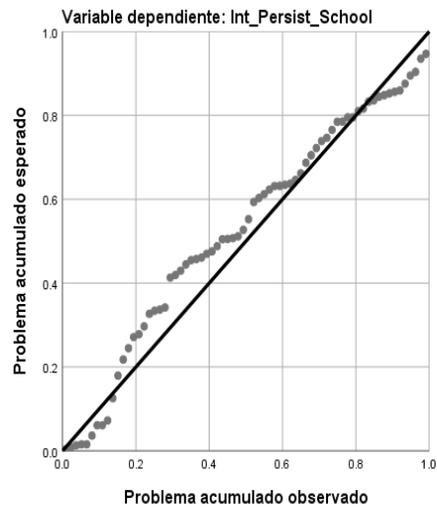
### Residual Statistics

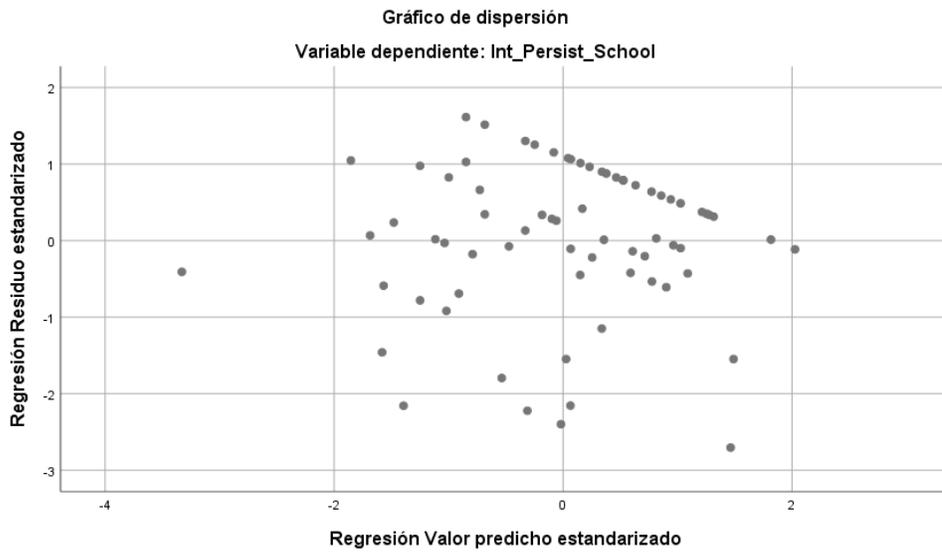
	Mínimal	Maximum	Mean	Desv. Deviation	N
Forecasted value	3.4641	7.1292	5.7429	.68433	70
Residual	-3.07780	1.83729	.00000	1.12183	70
Desv. Forecasted value	-3.330	2.026	.000	1.000	70
Desv. Residual	-2.704	1.614	.000	.985	70

a. Dependent variable: Intention to persist in school

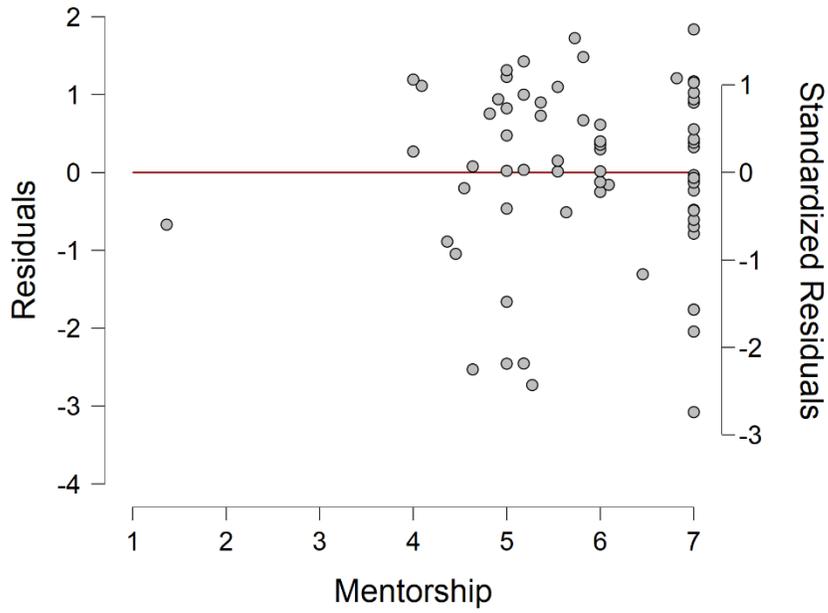
## Graphs

Gráfico P-P normal de regresión Residuo estandarizado

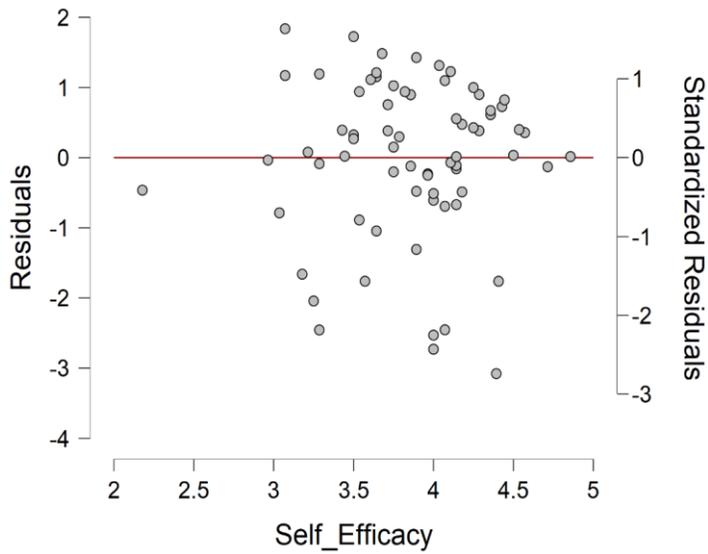




### Residuals vs. Mentorship



### Residuals vs. Self-efficacy



### Hypothesis Test 3

#### Regression

##### Variables entered/eliminated

Model	Variables entered	Variables eliminated	Method
1	School Satisfaction		By steps (Criteria: Probability of F- to enter <= .050, Probability of F- to eliminate >= .100).

a. Dependent variable: Intention to persist in school

### Summary of model

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Standard error of estimation	Durbin-Watson
1	.293 <sup>a</sup>	.086	.072	1.26571	.578

- a. Predictor: (Constant), School satisfaction  
 b. Dependent variable: Intention to persist in school

### ANOVA<sup>a</sup>

Model		Sum of squares	gl	Quadratic mean	F	Sig.
1	Regression	10.211	1	10.211	6.374	.014 <sup>b</sup>
	Residue	108.938	68	1.602		
	Total	119.149	69			

- a. Dependent variable: Intention to persist in school  
 b. Predictors: (Constant), School Satisfaction

### Coefficients<sup>a</sup>

Model		Non standardized coefficients		Standardized coefficients	t	Sig.	Collinear statistics	
		B	Desv. Error	Beta			Tolerance	VIF
1	(Constance)	3.794	.787		4.823	.000		
	School Satisf	.510	.202	.293	2.525	.014	1.000	1.000

- a. Dependent variable: Intention to persist in school

### Collinearity Diagnoses

Model	Dimension	Self-value	Condition Index	Proportions of variance	
				(Constant)	School Satisfaction
1	1	1.981	1.000	.01	.01
	2	.019	10.303	.99	.99

- a. Dependent variable: Intention to persist in school

### Residual statistics

	Minimal	Maximum	Mean	Desv. Deviation	N
Forecasted value	4.8142	6.3446	5.7429	.38470	70
Residual value	-3.19152	1.90526	.00000	1.25651	70
Desv. Forecasted value	-2.414	1.564	.000	1.000	70
Desv. Residual	-2.522	1.505	.000	.993	70

- a. Dependent variable: Intention to persist in school

# Graphs

Gráfico P-P normal de regresión Residuo estandarizado

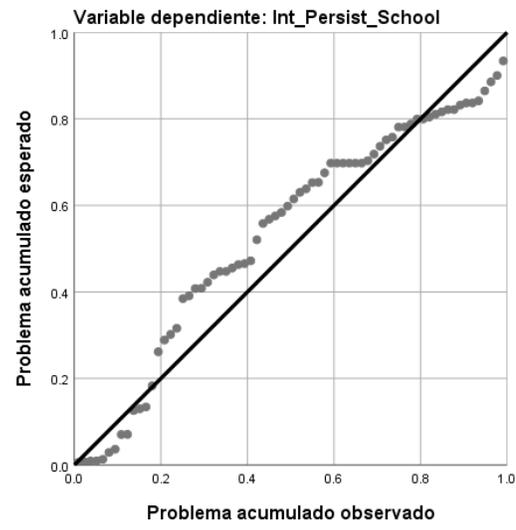
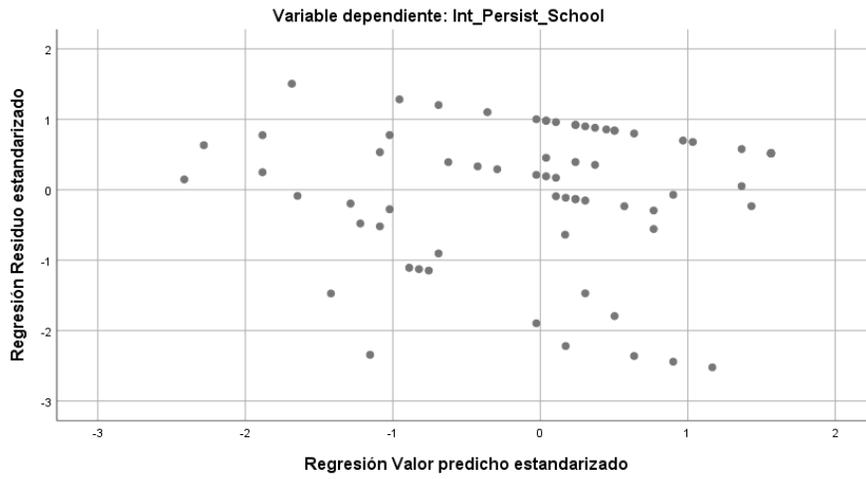
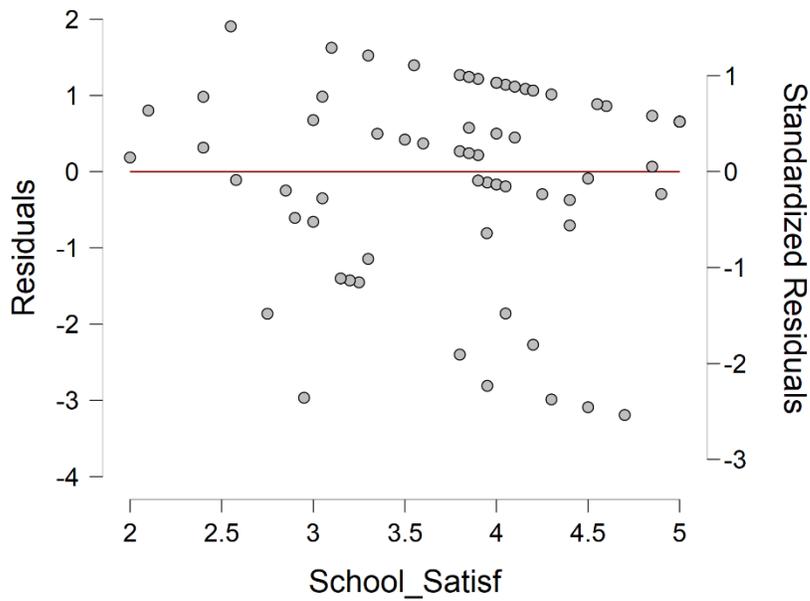


Gráfico de dispersión



## Residuals vs. School Satisfaction



## Secondary Results

### Test T

Work and don't work groups

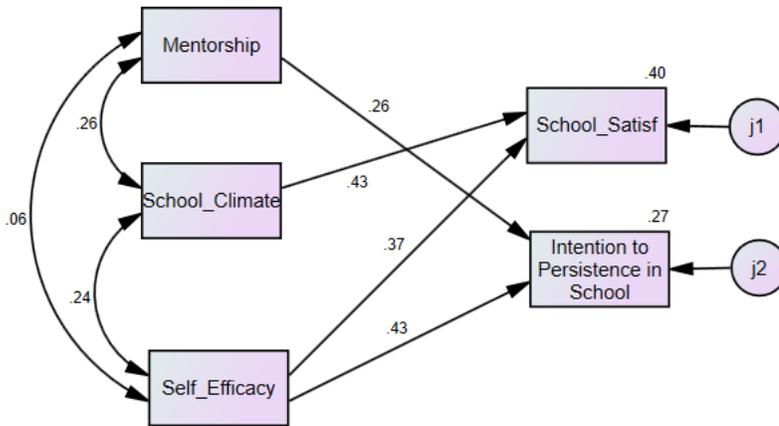
### Group statistics

	4. I work	N	Average	Standard Deviation	Desv. Error average
School climate	1= Yes	49	<b>3.9024</b>	.49053	.07008
	2= Not	21	<b>4.1612</b>	.30856	.06733

### Independent sample testing

		Levene test of equality of variances		T-test for equality of means						
		F	Sig.	T	gl	Sig. (bilateral)	Mean difference	Standard error difference	95% confidence interval difference	
									Inferior	Superior
School climate	Equal variances are assumed	3.544	.064	-2.230	68	<b>.029</b>	-.25877	.11602	-.49027	-.02726
	No equal variances are assumed			-2.663	58.293	.010	-.25877	.09718	-.45328	-.06425

## Path Analysis



CMINDF=.735, CMIN=2.204, P=.531, RMSEA=.000, CFI=1.000,  
TLI=1.045, GFI=.988, NFI=.968, RMR=.025

### Computation of degrees of freedom (Default model)

Number of distinct sample moments:	15
Number of distinct parameters to be estimated:	12
Degrees of freedom (15 – 12):	3

### Result (Default model)

Minimum was achieved  
 Chi-square = 2.204  
 Degrees of freedom = 3  
 Probability level = .531

**Assessment of normality (Group number 1)**

Variable	min	max	skew	c.r.	kurtosis	c.r.
Mentorship	1.364	7.000	-1.012	-3.456	2.056	3.511
School_Climate	2.846	4.769	-.461	-1.576	-.123	-.210
Self_Efficacy	2.179	4.857	-.618	-2.111	.892	1.524
School_Satisf	2.000	5.000	-.392	-1.338	-.441	-.754
Int_Persist_School	2.333	7.000	-.881	-3.008	-.260	-.444
Multivariate					6.972	3.486

Observation number	Mahalanobis d-squared	p1	p2
16	21.009	.001	.055
18	18.493	.002	.012
15	14.426	.013	.065
59	13.435	.020	.049
64	11.291	.046	.218
39	10.079	.073	.404
1	10.068	.073	.253
9	9.324	.097	.366
70	9.053	.107	.332
2	8.695	.122	.347
6	8.623	.125	.255
24	8.480	.132	.206
62	7.605	.179	.494
7	7.487	.187	.436
4	7.479	.187	.327
66	7.365	.195	.281
3	7.291	.200	.223
5	7.124	.212	.212
19	6.391	.270	.535
26	6.355	.273	.452
37	5.863	.320	.681
53	5.852	.321	.591
11	5.812	.325	.519
34	5.677	.339	.518
55	5.580	.349	.489
29	5.234	.388	.655
65	5.119	.402	.650
8	5.106	.403	.566
12	4.909	.427	.630
23	4.334	.502	.912
25	4.305	.506	.882

Observation number	Mahalanobis d-squared	p1	p2
44	4.229	.517	.869
10	4.160	.527	.852
63	4.006	.549	.880
67	3.909	.563	.880
42	3.704	.593	.927
43	3.439	.633	.972
13	3.420	.635	.957
27	3.380	.642	.943
49	3.379	.642	.911
33	3.248	.662	.928
69	3.109	.683	.946
40	3.106	.684	.914
38	3.081	.688	.883
45	2.972	.704	.894
57	2.705	.745	.963
60	2.573	.765	.974
58	2.463	.782	.978
35	2.458	.783	.962
48	2.424	.788	.947
54	2.352	.799	.942
68	2.330	.802	.914
52	2.240	.815	.916
51	2.205	.820	.886
47	1.927	.859	.968
31	1.848	.870	.966
56	1.771	.880	.963
46	1.700	.889	.957
14	1.676	.892	.929
17	1.639	.897	.895
21	1.554	.907	.886
50	1.529	.910	.821
30	1.495	.914	.744
32	1.425	.922	.690
61	1.405	.924	.555
20	1.085	.955	.798
28	.796	.977	.925
22	.738	.981	.849
36	.422	.995	.946
41	.234	.999	.913

Number of distinct sample moments: 15

Number of distinct parameters to be estimated: 12

Degrees of freedom (15 – 12): 3

	Estimate	S.E.	C.R.	P	Label
Int Persist_School <input type="checkbox"/> - Self-Efficacy	1.197	.284	4.216	***	
School Satisf <input type="checkbox"/> - Self-Efficacy	.586	.152	3.861	***	
School Satisf <input type="checkbox"/> - School Climate	.714	.158	4.515	***	
Int Persist School <input type="checkbox"/> - Mentorship	.315	.122	2.571	.010	

	Estimate
Int_Persist_School <input type="checkbox"/> - Self-Efficacy	.434
School_Satisf <input type="checkbox"/> - Self-Efficacy	.370
School_Satisf <input type="checkbox"/> - School Climate	.433
Int_Persist_School <input type="checkbox"/> - Mentorship	.265

	Estimate	S.E.	C.R.	P	Label
Self_Efficacy <input type="checkbox"/> > School-Climate	.052	.027	1.971	.049	
School_Climate <input type="checkbox"/> > Mentorship	.130	.062	2.103	.035	
Self_Efficacy <input type="checkbox"/> > Mentorship	.029	.063	.464	.643	

	Estimate
Self_Efficacy <input type="checkbox"/> > School-Climate	.244
School_Climate <input type="checkbox"/> > Mentorship	.262
Self_Efficacy <input type="checkbox"/> > Mentorship	.056

	Estimate	S.E.	C.R.	P	Label
Self-Efficacy	.224	.038	5.874	**	*
School Climate	.206	.035	5.874	**	*
Mentorship	1.202	.205	5.874	**	*
j2	1.241	.211	5.874	**	*
j1	.335	.057	5.874	**	*

	Estimate
School Satisf	.403
Int Persist School	.271

	Mentorship	School Climate	Self-Efficacy
School Satisf	.000	.714	.586
Int Persist School	.315	.000	1.197

	Mentorship	School Climate	Self-Efficacy
School Satisf	.000	.433	.370
Int Persist School	.265	.000	.434

	Mentorship	School Climate	Self-Efficacy
School Satisf	.000	.714	.586
Int Persist School	.315	.000	1.197

	Mentorship	School Climate	Self-Efficacy
School Satisf	.000	.433	.370
Int Persist School	.265	.000	.434

	Mentorship	School Climate	Self-Efficacy
School Satisf	.000	.000	.000
Int Persist School	.000	.000	.000

	Mentorship	School_Climate	Self_Efficacy
School Satisf	.000	.000	.000
Int Persist School	.000	.000	.000

Iteration		Negative values	Condition #	Smallest value	Diameter	F	N Tries	Ratio
0	e	0	19.206		9999.000	47.980	0	9999.000
1	e	0	7.574		.498	21.648	4	.000
2	e	0	11.566		.682	14.130	1	.329
3	e	0	7.766		.213	3.874	1	1.192
4	e	0	5.781		.105	2.288	1	1.131
5	e	0	5.897		.030	2.205	1	1.043
6	e	0	5.860		.002	2.204	1	1.003
7	e	0	5.801		.000	2.204	1	1.000

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	12	2.204	3	.531	.735
Saturated model	15	.000	0		
Independence model	5	68.781	10	.000	6.878

Model	RMR	GFI	AGFI	PGFI
Default model	.025	.988	.938	.198
Saturated model	.000	1.000		
Independence model	.175	.690	.534	.460

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.968	.893	1.012	1.045	1.000
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Model	PRATIO	PNFI	PCFI
Default model	.300	.290	.300
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Model	NCP	LO 90	HI 90
Default model	.000	.000	6.760
Saturated model	.000	.000	.000
Independence model	58.781	36.155	88.898

Model	FMIN	F0	LO 90	HI 90
Default model	.032	.000	.000	.098
Saturated model	.000	.000	.000	.000
Independence model	.997	.852	.524	1.288

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.000	.000	.181	.601
Independence model	.292	.229	.359	.000

Model	AIC	BCC	BIC	CAIC
Default model	26.204	28.490	53.186	65.186
Saturated model	30.000	32.857	63.727	78.727
Independence model	78.781	79.734	90.024	95.024

Model	ECVI	LO 90	HI 90	MECVI
Default model	.380	.391	.489	.413
Saturated model	.435	.435	.435	.476
Independence model	1.142	.814	1.578	1.156

Model	HOELTER .05	HOELTER .01
Default model	245	356
Independence model	19	24

Minimization: .036  
 Miscellaneous: .184  
 Bootstrap: .000  
 Total: .220

## Secondary Results

ANOVA

### ANOVA – School Climate

Homogeneity Correction	Cases	Sum of Squares	df	Mean Square	F	p	$\eta^2$
None	I work	0.984	1.000	0.984	4.975	0.029	0.068
	Residuals	13.454	68.000	0.198			
Welch	I work	0.984	1.000	0.984	7.090	0.010	0.068
	Residuals	13.454	58.293	0.231			

*Note.* Type III Sum of Squares

Descriptives

### Descriptives – School Climate

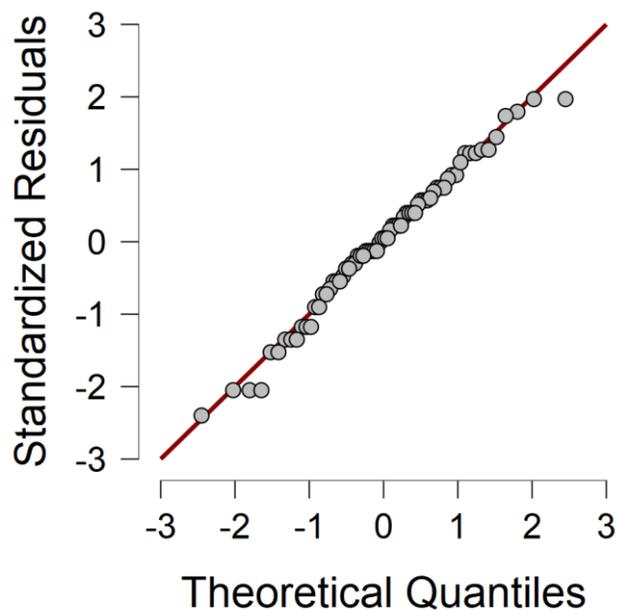
I work	Mean	SD	N
No	4.161	0.309	21
Yes	3.902	0.491	49

Assumption Checks

### Test for Equality of Variances (Levene's)

F	df1	df2	p
3.544	1.000	68.000	0.064

Q-Q Plot



Kruskal-Wallis Test

**Kruskal-Wallis Test**

Factor	Statistic	df	p
I_work	3.303	1	0.069

ANCOVA

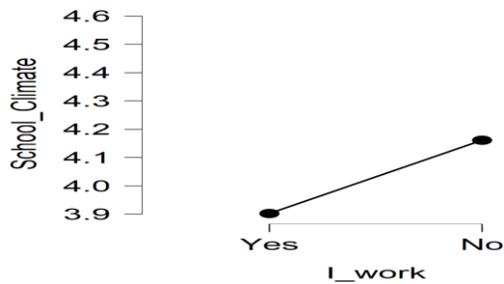
**ANCOVA – School\_Climate**

Cases	Sum of Squares	df	Mean Square	F	p	$\eta^2$
I_work	0.955	1	0.955	5.071	0.028	0.066
Self_Efficacy	0.833	1	0.833	4.420	0.039	0.058
Residuals	12.621	67	0.188			

Note. Type III Sum of Squares

Descriptives

**Descriptives plots**



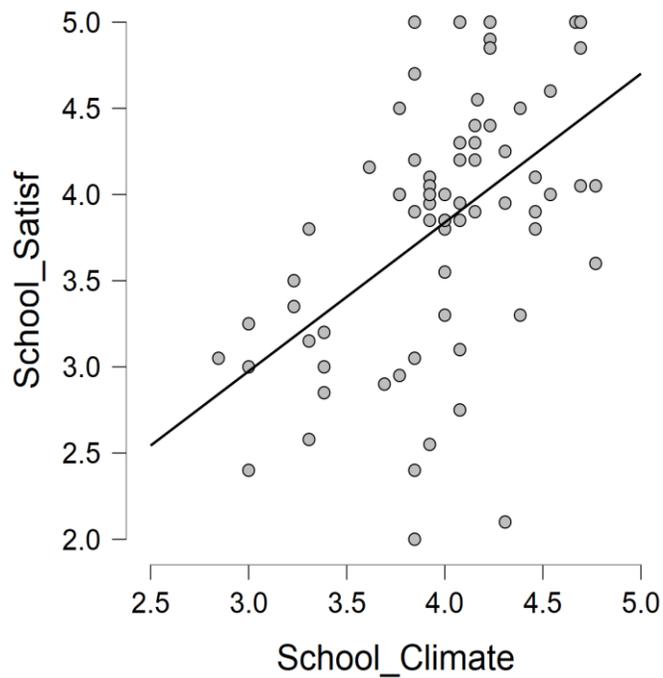
Correlation

**Pearson's Correlations**

		Pearson's r	p
School Climate	- School Satisf	0.524	< .001

Scatter plots

### School Climate vs. School Satisfaction



### Descriptive Statistics

#### Descriptive Statistics

	School climate		Intention to persist in school		Mentorship	
	Yes	No	Yes	No	Yes	No
Valid	49	21	49	21	49	21
Missing	0	0	0	0	0	0
Mean	3.902	4.161	5.619	6.032	5.716	6.212
Std. Deviation	0.491	0.309	1.232	1.479	1.160	0.893
Minimum	2.846	3.769	3.000	2.333	1.364	4.636
Maximum	4.769	4.692	7.000	7.000	7.000	7.000

### Boxplots

## Mentorship

Independent Samples T-Test

### Independent Samples T-Test

	<b>t</b>	<b>df</b>	<b>p</b>	<b>Cohen's d</b>
Mentorship	-1.747	6 8	0.08 5	-0.456

*Note.* Student's t-test.

Assumption Checks

### Test of Normality (Shapiro-Wilk)

		<b>W</b>	<b>p</b>
Mentorship	Yes	0.876	< .001
	No	0.792	< .001

*Note.* Significant results suggest a deviation from normality.

### Test of Equality of Variances (Levene's)

	<b>F</b>	<b>df</b>	<b>p</b>
Mentorship	0.460	1	0.500

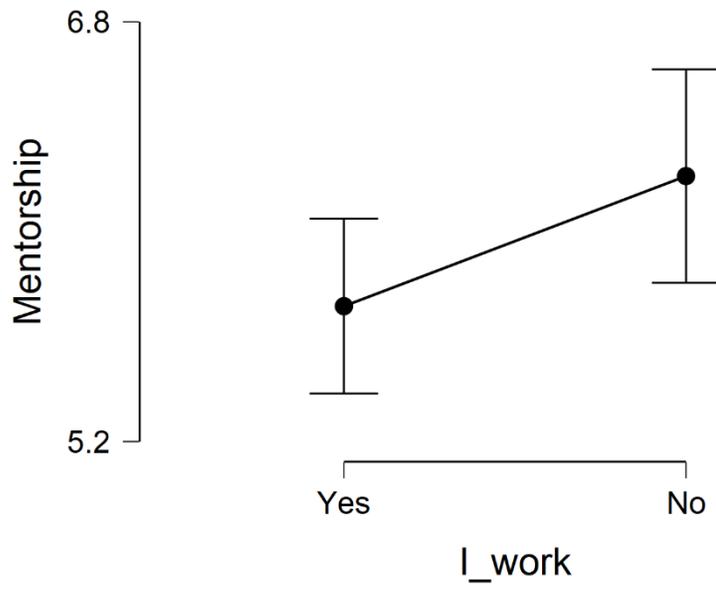
Descriptives

### Group Descriptives

	<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>SE</b>
	<b>p</b>				
Mentorship	Yes	4 9	5.716	1.16 0	0.16 6
	No	2 1	6.212	0.89 3	0.19 5

## Descriptives Plots

### Mentorship



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