A STUDY OF THE RELATIONSHIP BETWEEN STUDENTS' PERCEPTIONS TOWARDS SCHOOL CLIMATE AND THEIR SATISFACTION AT SHEHONG MIDDLE SCHOOL, SICHUAN, CHINA

Hongbin Luo[1]
Yan Ye[2]

Abstract: This study aimed to investigate the relationship between students' perceptions of school climate and their satisfaction at SheHong Middle School, Sichuan, China. By applying the Framework of school climates of Emmons, Haynes, & Comer (2002) and Maslow's Hierarchy of Needs Theory (1987) theories, this study identified students' perceptions towards school climate of six dimensions: 1) Order and Discipline 2) Fairness 3) Parent Involvement 4) Sharing Resources 5) Student Interpersonal Relationship 6) Student-Teacher Relationship, compared their perceptions according to 3 pieces of demographics. The results of this study indicated a significant relationship between students' perceptions towards school climate and students' satisfaction. The findings for research objective one revealed that the total mean score of the level of students' perceptions of school climate was 3.43, which was interpreted as Moderate. The findings for research objective two showed that the total mean score of the level of students' satisfaction was 3.46, which was interpreted as Moderate as well. The correlation result showed a positive relationship between students' perceptions of school climate and students' satisfaction. The researcher discussed the research findings and provided corresponding suggestions to related principals, teachers, and administrators at the selected school in Sichuan, China.

Keywords: Students' perceptions; School Climate; Students' satisfaction; SheHong Middle School in Sichuan.

Introduction
With the development of the whole nation's society and economic status, the gap between the rich and the poor, the tradition and the modern, has become

[1] M Ed. Candidate, Assumption University, Thailand. 1062067037@qq.com
[2] Ph.D., Assistant Professor, Graduate School of Education, Stamford International University, Thailand. yan.ye@stamford.edu

wider and wider, resulting in a terrible impact on students at all levels (Long, 2014). Students from the poor and the rich are very likely to have different achievements, then those who perform worse than their peers may feel they are not important in school in the eyes of their teachers and parents. It could cause some student satisfaction towards the whole school.

In this fast-changing 21st century, most school leaders, both abroad and domestically, have been meeting a challenge concerned with students' satisfaction and academic improvement (Kutsyuruba, Klinger, & Hussain, 2015). In China, the whole nation's school leaders across the east and west part of China's mainland struggle with the same problems, and they have never been so eager to find out how student satisfaction can be raised. One possible means would be a positive and healthy school climate. Few studies on the relationship between student academic achievements and school climate (Watson 2001; Malecki & Demaray, 2006; Tenenbaum, 2018) suggest that there is some positive impact on student academic achievements given by a positive and healthy school climate. Here school climate refers to the quality and character of school life, which the US National School Climate Council (2007) has defined as one of the most important factors for school improvement in the 21st century.

Over the last 50 years, many empirical studies and research (Baker, 2003; Gonder,2004; Amrit, 2013) have shown us that student retention, teacher retention, parent satisfaction, staff satisfaction, and student academic student graduation rate could benefit a lot from a positive and healthy school climate. A sustainable, positive school climate fosters youth development and learning necessary for a productive, contributing, and satisfying life in a democratic society. This climate includes norms, values, and expectations that support people feeling socially, emotionally, and physically safe. People are engaged and respected. Students, families, and educators work together to develop, live and contribute to a shared school vision. Educators model and nurture attitudes that emphasize the benefits and satisfaction gained from learning. Each person contributes to the school's operations and the care of the physical environment. More and more educators realize how important a positive and healthy school climate is for the education process (Tenenbaum, 2018).

The supportive and safe climate leads to a decrease in the rate of developmental stress in early adolescence and enlarges the level of academic motivation and achievement Barber (2004). In addition, a positive climate can protect against the negative impact of poverty on educational outcomes (Malecki & Demaray, 2006). The school climate in which students feel insecure and unpleasant to learn and stay has a ruinous effect on student

satisfaction and achievement Watson (2001). The school climate has a significant impact on the health of the learning environment. For students to flourish emotionally, socially, and academically, safe learning and supportive learning environment is a necessity (Kutsyuruba, Klinger, & Hussain, 2015)

Undoubtedly, an effective education system could benefit the whole society a lot in terms of school future and societal development. The 21st century is a century of innovations and creativity, and the digitalized world requires future students or us to have the ability to create, accept and make new things. But the current education system in China could not meet this goal as the traditional teaching method and teacher-centered teaching model limits students' innovation and critical thinking, many students in China could not find their interest in learning, and the learning environment could not satisfy their needs (Long, 2014).

The researcher believes that this problem could be solved easily by cultivating the school climate. As presented earlier, some considerable studies showed that school climate or environment is a major factor contributing to student satisfaction (Samdal, Nutbeam & Kannas,1998). Hence, this study is to determine whether the students are satisfied with their school climate and determine if there is a significant relationship between school climate and student satisfaction at SheHong Middle School.

Research Objectives
1. To identify the levels of students' perceptions towards school climate at SheHong Middle School.
2. To identify the levels of students' satisfaction at SheHong Middle School.
3. To identify the levels of students' satisfaction and school climate at SheHong Middle School, China.

Literature Review
School climate
School Climate refers to the quality and character of school life. School climate is based on patterns of students', parents', and school personnel's experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures.

Dimensions of School Climate
Different researchers provided different dimensions of school climate to measure the school environment or school climate. There are main areas that should be paid more attention to when we discuss the school climate: students' safety, teaching and learning, relationship, institutional environment, and

school connectedness (Brand et al., 2003). The school climate applied in this research comprises six dimensions: 1. Order and discipline, 2. Fairness, 3. Parent Involvement, 4. Sharing Resources, 5. Student Interpersonal Relations; and 6. Student-teacher Relationship.

Students' Satisfaction
The assessment of students' satisfaction at a school becomes an essential measurement plan in an institution or university as the survey result can provide administrators with important direction for strategic planning in terms of teaching and learning, campus life, and services that can be utilized in improving the quality of student life and developing policies that encounter students' needs (Edens, 2012).

Maslow's Hierarchy of Needs Theory
Maslow (1943) argues that it was the responsibility of the organizational leader to enhance the level of employees' job satisfaction and motivation by attending to the basic needs of the individual. In an institution, according to Howard et al. (1987), the basic needs of the individuals from the school community-students, teachers, and administrators, must be fulfilled (as cited in Han, 2013). Maslow's theory helps leaders from every organization, including the school, better understand the psychological process that involves motivating and retaining the employee. In the education field, Maslow's study can be utilized to promote the most conducive learning environment and help school administrators and educators identify the areas where students are satisfied with the school climate, which might greatly influence their academic achievement (Schunk, 1991).

Herzberg's Two-Factor (motivation-hygiene) Theory
In the mid-1960, management theorist Frederick Herzberg proposed the two-factor (motivation-hygiene) theory regarding job satisfaction: Job dissatisfaction was influenced by hygiene factors, and motivation factors influenced Job satisfaction or motivation. Hygiene factors describe the extrinsic factors that have no influence and cause job dissatisfaction in the workplace (Reed & Watmough, 2015). Extrinsic factors relate to a working environment, such as politics, quality of leadership, interpersonal relationships, working conditions, job security, etc. These extrinsic factors do not motivate employees but lacking these factors can cause worker dissatisfaction. Motivators describe the intrinsic factors of the job that motivate employees, such as recognition, work itself, job satisfaction, an opportunity for personal growth, and advancement (Herzberg, 1967).

Several substantial studies regarding student satisfaction use Herzberg's motivation-hygiene theory (Timmreck, 1977; Reed & Watmough, 2015; Chyung, 2005). According to Timmreck (1977), adapted for education, hygiene factors comprised the school policy and rules, the supervision of teachers and administrators, students' relationship with teachers, principal, administrators, and peers, classroom environment, status, and security. If those factors are not available at the desired level, students become dissatisfied, but their presence does not motivate or satisfy students. These hygiene factors could be used only to prevent or avoid unhappiness and dissatisfaction in the school, not to motivate students. Herzberg (1967) demonstrated clearly that these hygiene factors fail to provide satisfaction or motivation because the characteristics necessary for personal growth are lacking. Mainsera & Kooiji (2003) state that the administration must continually maintain these hygiene factors because they are never completely satisfied (as cited in Chyung, 2005). When hygiene factors are low or lacking, a person tends to fill these factors rather than factors that satisfy or motivate a person that leads to a person's achievement.

According to Timmreck (1977), this Herzberg's theory could loosely compare to Maslow's hierarchy of needs theory. Maslow's lower needs- physical and safety or Herzberg's hygiene factors need to be addressed before the higher needs of love, self-esteem, and self-actualization or motivation. This researcher, Timmreck, discovered that factors that were discovered to cause unhappiness and dissatisfaction among students were being treated unequally or finding a classroom condition unpleasant. All students want to get equal treatment. Revealed that unbiased treatment of students could decrease students' feelings of alienation and have a significant positive result on students' feelings about school experiences.

Previous Studies on School Climate and Students' Satisfaction
The study of life satisfaction is included in a perspective that emphasizes healthy and positive aspects of development at different life cycle stages. Life satisfaction has been related to the individual's cognitive assessment of his/her life in different domains (Segabinazi, Giacomoni, Dias, Teixeira, & Moraes, 2010).

Adolescents' specific life satisfaction domains include satisfaction with school, family, and leisure. In Brazil, in general, young people present good levels of life satisfaction (Segabinazi et al., 2010), which corroborates the findings of the international literature (Huebner & McCullough, 2000; Huebner, Gilman, Reschly, & Hall, 2009). However, among the specific domains of life satisfaction for adolescents, the school has presented the

lowest means in national and international studies (Huebner & McCullough, 2000; Segabinazi et al., 2010). Low satisfaction with school experiences has generated questions related to the schools' role in preventing and promoting adolescent health. As young people spend most of their time at school, this context should be considered a key scenario for interventions designed to promote students' well-being.

School satisfaction is related to the students' assessment of how they feel about that environment, considering the importance of the school, the school community, and the interpersonal relationships experienced in this context (Huebner & McCullough, 2000). This measure, however, is complex and non-linear since the student's perception of the school experience does not only derive from events and feelings related to the school itself. Other life experiences related to family, friends, leisure, and physical and mental health may affect this judgment.

Studies have demonstrated the importance of contextual and individual variables (self-perceptions, individual resources) for a better comprehension of students' satisfaction with their school experience. Among the existing empirical evidence, some of the key factors that correlate with school satisfaction are age and academic performance (Alves, Zappe, Patias, & Dell'Aglio, 2015), feelings of self-esteem (Karatzias, Power, Flemming, Lennan, & Swanson, 2002), support of teachers and peers, general and academic self-efficacy (Suldo, Bateman, & Gelley, 2014), expectations for the future and school climate.
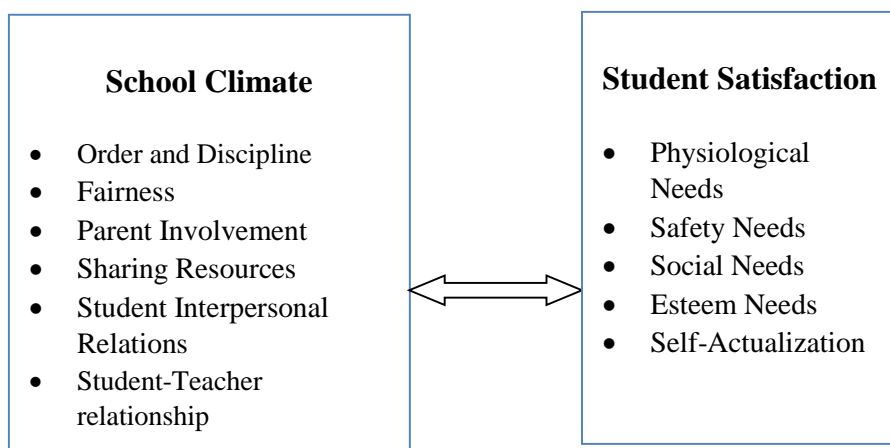
From this positive perspective, the evaluation of the schooling process (school results) should not only focus on variables related to academic success. It is important to consider more comprehensive outcomes, including non-academic results, such as students' perceptions regarding the quality of their school settings and their psychological well-being (Huebner et al., 2009). Studies have shown that school experience and levels of satisfaction with the school influence overall satisfaction with life and well-being (Suldo et al., 2014). Therefore, it is important to understand which factors promote school satisfaction for students.

The school climate has been associated with important school results. Growing evidence suggests that the school climate can affect students' learning levels and academic performance. According to a study by the Organization of Economic Cooperation and Development (OECD, 2017), school climate was the element that most explained the variation in performance results among the schools analyzed. Also, the environment or the

school climate students experience can predict and promote their satisfaction with life and the school (Suldo et al., 2013). Almost all definitions of school climate include references to the importance of positive interpersonal relationships. For example, Aldridge et al. (2016) defined school climate as the quality of the interactions with the school community, which influences the students' cognitive, social, and psychological development. Other definitions include the importance of students and staff feeling psychologically and physically safe in this environment (Cohen, Mccabe, & Michelli, 2009).

Conceptual Framework

Based on the theoretical framework, the framework of this study was designed as:

School Climate

- Order and Discipline
- Fairness
- Parent Involvement
- Sharing Resources
- Student Interpersonal Relations
- Student-Teacher relationship

Student Satisfaction

- Physiological Needs
- Safety Needs
- Social Needs
- Esteem Needs
- Self-Actualization

Figure 1. *Conceptual Framework*

Research Instrument

In this study, the researcher applied the questionnaire based on the literature review to identify the relationship between student satisfaction and school climate. The research instrument was a questionnaire including two parts to identify the relationship. Part (1): the questionnaire was designed to measure the students' perceptions of the school climate. The researcher adopted the questionnaire from a previous study developed by Long (2014). Long (2014) used "the Concept of the School Climate" (Emmons et al., 2002) to conduct his study. Among 37 items of Long's (2014) school climate, the researcher removed some items discovered not relevant to the school environment of the Chinese students. Part (2): the questionnaire was designed to measure the level of students' satisfaction. The questionnaire was an adaptation from previous research developed by (Taormina & Gao, 2013), based on "Maslow's

Satisfaction of Needs." Taormina & Gao (2013) used Maslow's Satisfaction of Needs" to measure the level of satisfaction in their study.

Population
With the principal's permission, reminding, and requirement, the school coordinated with this study for allowing this researcher to select only two classes of Grade 12 students as the sample, so this study used this convenient sampling method and used two classes of Grade 12 students for the investigation of this study, the total students number were 80 (the sampling class 1 and 2 was 80)

Validity and Reliability
Part (1): School Climate Survey (SCS) for this research was adopted from the previous study done by Long (2014). Long (2014) adopted his items from Petrucci et al. (2016). They developed a "Student survey on school climate" to measure students" perception of school climate based on the six dimensions of school climate identified by Emmons et al. (2002). In regard to the content validity of "Students' perception of School Climate," Long (2014) stated that Petrucci et al. (2016) developed the "School Climate Survey" through a comprehensive literature review and conducted confirmatory factor analysis (CFA) to provide the evidence of the validity of the SCS-MS.

Part (2): The items of the "Student Satisfaction Survey" for this research study were adapted from a previous study done by Taormina & Gao (2013). Taormina & Gao (2013) developed a questionnaire with 50 items based on "Maslow's Satisfaction of Needs." Taormina & Gao (2013) used "Maslow's Satisfaction of Needs" to measure the level of satisfaction in their study. The reliability results were analyzed using a statistical program to compute Cronbach's alpha (α) coefficient to find the reliability of the questionnaire. Among 50 items of Taormina & Gao's (2013) "Measuring the satisfaction of the Needs," the researcher removed some questionnaire items that were not relevant to students.

Table 1. *Reliability of the questionnaire of the School Climate*

Variables	Dimensions	Cronbach's alpha form Long (2014)	Cronbach's alpha from current study
	Order and Discipline	.75	.77
	Fairness	.83	.62
	Parent Involvement	.68	.76
School	Sharing Resources	.75	.75
Climate	Student Interpersonal Relation	.84	.87

	Student-Teacher Relations	.87	.68
	Total	.73	.74

Table 2. *Reliability of the questionnaire of Need Satisfaction*

Variables	Dimensions	Cronbach's alpha from Taormina & Gao (2013)	Cronbach's alpha from current study
Students' Satisfaction	Physiological needs	.81	.76
	Safety Needs	.87	.80
	Belongingness needs	.90	.57
	Esteem Needs	.91	.74
	Self-Actualization needs	.86	.78
	Total	.83	.73

Findings

Research Objective One

This objective was to identify the students' perceptions toward the school climate at SheHong Middle School in China.

Table 3. *The Total Mean Score of Each Dimension of School Climate*

Item	Mean	SD	Interpretation
Student-Teacher Relation	3.52	1.042	High
Student Interpersonal Relation	3.50	1.01	Moderate
Sharing Resources	3.41	1.072	Moderate
Oder and Discipline	3.40	1.04	Moderate
Parent Involvement	3.40	1.068	Moderate
Fairness	3.36	1.082	Moderate
Total	3.43	1.052	Moderate

Table 3 shows the total mean score, SD, and Interpretations of six dimensions of School Climate, which were put in from the highest to the lowest.

Research Objective two

This objective was to identify the students' satisfaction at SheHong Middle School in China. To identify students' satisfaction, the second part of the questionnaire survey included 21 Items in total, which was based on five different dimensions as the research mentioned in the pre-chapter.

Table 4. *The Total Mean Score of Each Dimension of Students' Satisfaction.*

Item	Mean	SD	Interpretation
Social Needs	3.52	1.052	High
Self-Actualization	3.51	1.065	High
Self-Esteem Needs	3.46	1.056	Moderate
Safety Needs	3.42	1.078	Moderate

Physiological Needs	3.39	.999	Moderate
Total	3.46	1.05	Moderate

Table 4 shows the total score of students' satisfaction at each level, which was put in order from the highest to the lowest.

Research Objective Three

The perceptions survey of grade 12 students was utilized to state research objective three: to determine if there is a significant relationship between students' perceptions towards school climate and student satisfaction at Selected schools in China.

Table 5. *Pearson Correlation between the Students' Perceptions towards School Climate and Students' satisfaction (N=79)*

		School Climate	Conclusion
Students' perceptions toward school climate	Pearson Correlation	.967	There is a significant relationship.
	Sig (2 tailed)	.000	

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5 illustrates the Pearson correlation results, indicating a significant relationship between the grade 12 students' perceptions of the school climate and their satisfaction at SheHong Middle school, Sichuan, China. ($r(79)=.967$, $p=.000<.01$)

Discussion

As a result of study findings, the total mean score of students' perceptions towards school climate was moderate on six dimensions (1) Order and Discipline, (2) Fairness, (3) Parent Involvement, (4) Sharing Resources, (5) Student Interpersonal Relations (6) Student-Teacher Relationship, and the researcher found that students only have a high perception in Student-Teacher Relationship, and as for the other dimensions, all of them were moderate, however, all of the rest five dimensions were near the point between high and moderate. Thus, we can see that the total mean score of students' perceptions towards school climate was 3.43. The average mean score of school climate illustrated that the principal and administrators at SheHong Middle School need to take some specific measures to improve more in some areas of school climate so that the students could gain more satisfaction; if the students have positive perceptions of their school climate or environment, they would be more likely to be more motivated to achieve their personal academic goal (Fraser, Docker & Fisher, 1998).

A positive and healthy school climate or environment would positively influence students' in-school behaviors. In this research, as for Student-Teacher relations, the participants showed a high level of student perception with a mean score of 3.52 in the 3.51-4.50. The high mean score of Student-Relation revealed that the students and teachers formed a caring, good, and positive relationship. What's more, the teachers were kind, easy-going, helpful, and trustworthy educators who could motivate their students in a highly positive way. A good relationship between students and teachers was crucial to gaining more students' and parents' satisfaction with schools. It could also have a good impact on student's development and progress. Forming a positive bond with students can significantly impact students' behavioral and emotional engagement and academic success (Harmre& Pianta, 2006; Brich & Ladd, 1998). According to Harmre and Pianta (2006), students who do not have a healthy relationship with their teachers are more likely to have behavioral and academic issues in class, surrender

Furthermore, the study findings on school climate showed that the Student Interpersonal relations dimension was Moderate (3.50). However, it was very near the range of high level, which revealed that many students of the selected school have already formed good and kind of positive relationships among their classmates and friends. However, a small part of students still did not show good and trustworthy relationships with their classmates. The quality of peer relations relates to the student's cognitive development, abilities, and social competence (Borovečki and Čiček, 1986). The relationship among students provided recourse for the students themselves for their future life, which played an important role in students' social skill development.

In addition, as a result of study findings, the students' perceptions towards Sharing Resources were moderate. The mean score was 3.41, which showed that not all of them could feel that they all have the same opportunity and equality to use school equipment and material such as sports balls, computers, and musical instruments, etc. As for some special activities, the material and equipment were arranged by teachers or other supervisors, which made some students feel that they did not gain the same right to use something they wanted.

Undeniably, to develop school effectiveness and students' well-being, the school must cultivate a culture of equity. Ross (2013) The lack of school resources affected students' educational achievement (Caygill, Lang & Cowles, 2006). The school should provide enough resources for each student, which is an essential part of an effective school. The students might be more

motivated to achieve their goals if the school provides more resources to share their experiences.

What's more, the finding on Order and Discipline was Moderate, which indicated that the school principal and administrators should pay more attention to building order and Discipline inside the school. One of the questionnaire Items from Order and Discipline showed that some of the students called others bad names, and there was some conflict hidden inside the school which was not discovered by the authorities, which could have a bad impact on the overall school environment. A bad overall school climate or environment would make most students feel a bad learning atmosphere where they could easily lose the passion for learning or for reaching their academic achievements.

Similarly, the finding on Parent Involvement was moderate, and the mean score of it was the same as the Order and Discipline dimension (3.40). According to the questionnaire score, the researcher found that the parents do not pay attention to their kid's school life, including the relationship between students and students, students and teachers, and their involvement in students' education. Many parents did not come to school to talk with their kid's teachers or classmates to know kid's performance at school. Many parents even did not come to the parents meeting as they were so busy with work and other things. In other words, the current parents cared more about their own business than their kids, and some held that it was the teachers' business to educate their kids and nothing to do with them.

Lastly, the research finding of the dimension of Fairness was the lowest, whose mean score was 3.36, the lowest compared with other dimensions. However, it could still be interpreted as moderate, which meant not all students felt they were treated the same as others in the school regardless of their gender, family background, cultural background, and social class. But the mean fairness score was not that low, which meant the fairness building was not so bad. Anyway, fairness was one of the most crucial factors that would influence the students' feelings. According to Walsh & Maffei (1994), fair treatment was a crucial part of promoting students' motivation and satisfaction and positively impacted the social relation between the teacher and students.

According to the research findings, the level of student satisfaction in the school was moderate, indicating that not all students were satisfied with their school. However, the level of student satisfaction was crucial for a school to develop; according to previous studies, the level of student satisfaction with

the school was essential because it affected the student's psychological well-being, school engagement, absence rate, and some behavior problems.

The students' response to their Social Needs was high, which pointed out that the school had built a good atmosphere and climate for students to satisfy their social needs, and the relationship among students was quite good. Moreover, the Social Needs got the highest mean score, indicating that the school had a good environment for students to form a strong and positive relationships with each other

The data analysis showed that the level of students' Self-Actualization was high, ranking second. The result illustrated that most of the students from samplings at SheHong Middle School, regardless of their disability, had a high self-worth, acceptance of themselves, and optimism. Self-Actualization was the fifth level of Maslow's Hierarchy Needs; once the highest level was satisfied, the students would have enough power and positive thinking to overcome most of the difficulties they met in school.

Lastly, according to the survey, the researcher had to point out that the two lowest levels were Safety Needs and Physiological Needs. Normally, these two elements should be put at the first level of the school building. Still, in this study, they were the lowest not because they were not good enough to protect the students and provide students a good enough physiological environment, but because the real reason that China has so many students and people, which was so as the school the researcher selected. It was hard for a school to provide a perfect physical environment for that many students in a school. However, the safety and physiological needs were important, so the principal and administrators should pay more attention to these two areas. Anyway, it was sure all of the students could get a guarantee that they were under good enough protection both for safety and physiological needs. Still, the current school could not satisfy every corner of students' needs.

The research found a significant relationship between the students' perceptions of the school climate and their satisfaction with the school, with a Sig value of .000, which was less than 0.01. The current study findings agreed with previous results obtained by Samdal et al. (1998, which showed a significant relationship between the school climate and students' satisfaction. Finally, the results showed that students' perception of the school climate was significantly connected with their satisfaction with the school. This previous study indicated that students' perception of fairness, safety, and student-teacher relations are the most crucial predictors of students' satisfaction with school.

Long (2014) also found that schools with a positive climate had a significant relationship with student satisfaction.

REFERENCES

Aldridge, S., & Rowley, J. (1998). Measuring customer satisfaction in higher education. *Quality Assurance in Education, 6*(4), 197-204.

Bear, G. (2010). Discipline: Effective School Practices. National Association of School Psychologists, 1-4.

Cengiz, E. (2010). Measuring Customer Satisfaction: Must or Not? Journal of Naval Science and Engineering, 6(2), 76-88.

Edens, D. (2012). The Value of Student Satisfaction Assessment at For-Profit Higher Education Institutions. Noel-Levitz, 1-12.

Fraser B.J., G. S. (2003). Classroom Learning Environments. International Handbook of Educational Research in the Asia-Pacific Region, 11, 463-475. doi: https://doi.org/10.1007/978-94-017-3368-7_32

Haynes, N. M. (1991). Expediency and school achievement: An examination of critical issues. Unpublished paper, Yale Child Study Center, New Haven, Psychological association, 23(1), 50-57

Haynes, N. M., Comer, J. P., & Hamilton-Lee, M. (1988). The School Development Program: A model for school improvement. Journal of Negro Education, 57(1),ll-21.

Haynes, N. M., Emmons, C. L., & Woodruff, D. W. (1995). School Development Program Effects: Linking Implementation to outcomes. Journal of Education for Students Placed at Risk, 71-85.

Herzberg F, Mausner B and Block Synderman B (1967) The Motivation to Work, 2dedn. New York, New York, USA: John Wiley & Sons.

Herzberg F, Mausner B and Block Synderman B (1967) The Motivation to Work, 2dedn. New York, New York, USA: John Wiley & Sons James, L.R. an Jones, A.P.,

Kutsyuruba, B., Klinger, D. A., & Hussain, A. (2015). Relationship among school climate, school safety, and student achievement and well-being: a review of the literature. Review of Education.

Long, L. (2014). A study of the relationship between school climate and students' satisfaction in Wu Han China-Britain International School. Assumption University, 37-41

Maslow's Hierarchy of Needs and Its Relation to Learning and Achievement by Sarah E. Burleson and Andrew C. Thoron. Received from http://edis.ifas.ufl.edu/pdffiles/wc/wc15900.pdf Maslow, A. H. (1987). Motivation and personality (3rd ed.;

Sullivan G. M., Artino A. R., Jr. (2013) Analyzing and interpreting data from Likert-type scales

Taormina, R. J., & Gao, J. H. (2013). Maslow and the Motivation Hierarchy: Measuring Satisfaction of the Needs. American Journal of Psychology, 126(2),   155-177.

Timmreck, T. (1977). Motivation-Hygiene Theory Adapted for Education. The High School Journal, 61(3), 105-110.

Timmreck, T. (1977). Motivation-Hygiene Theory Adapted for Education. The High School Journal, 61(3), 105-110. Retrieved from

Walsh, D. J., & Maffei, M. J. (1994). Never in a Class by Themselves: An Examination of Behaviors Affecting the Student-Professor Relationship. Journal on Excellence in College Teaching, 5(2), 23-49.