



# The Role of School Climate and Self-efficacy on Student Engagement in a Junior High School in Malang

Muallifah<sup>a</sup>, Marthen Pali<sup>b</sup>, Imanuel Hitipeuw<sup>c</sup>, Sudjiono<sup>d</sup>, <sup>a</sup>Doctoral Student, Universitas Negeri Malang, Indonesia, Lecture at Universitas Islam Negeri (UIN) Maliki Malang, Indonesia, <sup>b,c,d</sup>Department of Psychology, Universitas Negeri Malang, Indonesia, Email: <sup>a</sup>[aliefaha@gmail.com](mailto:aliefaha@gmail.com), <sup>b</sup>[profmarten@gmail.com](mailto:profmarten@gmail.com), <sup>c</sup>[imanuel.hitipeuw.fip@um.ac.id](mailto:imanuel.hitipeuw.fip@um.ac.id), <sup>d</sup>[sudjiono.fppsi@um.ac.id](mailto:sudjiono.fppsi@um.ac.id)

School climate and self-efficacy are factors that affect student engagement. This study aims to examine the impact of school climate and self-efficacy on student engagement of junior high school. The population of this study was a student in Junior High School, who are registered as active students. The number of samples of the study was 236 junior high school students in Malang taken randomly. The data collection method used the school climate scale, self-efficacy scale, and student engagement scale. The results of multiple linear regression analysis showed that school climate and self-efficacy had a very significant impact on student engagement at school ( $R = 0.501$ .  $P = 0,000$ ). School climate and self-efficacy contributed 50.1% to student engagement, and other factors influenced the remaining 49.9%. The contribution of school climate to student engagement is more dominant than the contribution of self-efficacy to student engagement at school.

**Keywords:** *School Climate, Self-Efficacy, Student Engagement, Academic Success*

## Introduction

Student engagement is one of the essential factors that determine student success in school. Students who have a high level of involvement have an impact on the level of achievement achieved. Some research results show that student engagement at school has an effect on (1) students' ability to optimise their potential; (2) students are more motivated to be involved in participating in various activities at school; and (3) students can increase academic achievement. The involvement of these students ultimately encourages student academic achievement (Sedaghat, Abedin, & Hejazi, 2011; Chase et al., 2014). Further findings also



show that low student engagement will have an impact on (1) the risk of student failure is more natural; (2) student achievement decreases; and (3) the quality of learning decreases.

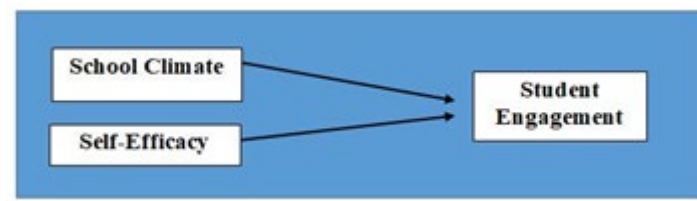
Gibbs and Poskitt (2010) said that student engagement is influenced by psychological sources that can support the level of student engagement in school. Psychological causes are categorised as follows: (1) internal sources within students, including self-efficacy; and (2) external sources in the form of school climate. The school climate supports student involvement because it is capable of comfort, optimism, and enthusiasm of students to increase their participation in school. Likewise, self-efficacy becomes an important driver, which results in students' confidence in their ability to be involved in the school. Both of these psychological sources have been influential factors in shaping the quality of student engagement at school.

When students are not involved in participating in academic or non-academic activities in the school, it has an impact on punishment and suspension from the school to students. It will undoubtedly have an effect on academic failure on students. Subjectively students understand the risk of failure that is accepted, even though the cause of student involvement is also external. School climate is one factor that plays an essential role in supporting the level of academic success of students in school. Through favourable school climate conditions, teachers who pay attention to complaints and difficulties of students have an impact on students' efforts to show better performance in engaging in class (Shukla, Cornell, & Konold, 2015). Interpersonal relationships that support each other between one student and another are also able to help students to solve difficulties in the learning process (Zahid, 2014; Sujisha & Manikandan, 2014). Also, a positive and supportive school climate makes students comfortable with optimising their potential in learning and extracurricular activities at school. When teachers, students, and staff at school help and support students to show their performance at school will have an impact on the level of student involvement to achieve learning outcomes and achievement at school.

Student success is determined by the level of active student engagement in participating in academic activities at school and self-development activities through extracurricular activities. To engage in various activities requires students' self-confidence in their abilities. Self-efficacy is an essential factor in supporting student involvement. Self-efficacy is believed to be a form of student's confidence in his ability to be optimistic in dealing with all the difficulties that are felt in school (Shaukat, 2012). So that self-confidence in their abilities, students can develop strategies to follow the learning process well. Self-efficacy is an internal resource related to students' beliefs in acting. Self-Efficacy is interpreted as a student's confidence in his ability to achieve the desired goals through the actions shown (Bandura, 2009; Schunk, 1991; Chang & Chien, 2015). It shows that when students have high self-efficacy, students tend to show high motivation and optimism that they are involved in academic activities in developing their potential to achieve the desired goals of success (Dogan, 2015; Avsec & Szewczyk-Zakrzewska, 2018).



The purpose of this study is to look at the effects of school climate and self-efficacy on student engagement. The results of this study are expected to provide an overview of the role schools in increasing the involvement of school students in schools. Besides, schools can prepare various programs that can encourage student engagement. Based on the explanation above, the role of school climate and self-efficacy towards the level of student engagement can be illustrated in the following Figure 1.



**Figure 1. The Role of School Climate and Self-Efficacy to Student Engagement Illustration**

## Literature Review

### Student Engagement

Student engagement is defined as a form of active student participation, both in academic activities and in extracurricular activities. This form of involvement leads to a psychological component, which is a form of a sense of belonging to the school and accepting the values of the school (Veiga et al., 2012; Abbing, 2013; Reeve, 2012). Among the intended engagement activities are (a) student participation in activities at school; (b) student preparation before entering class; and (c) students doing assignments and engaging in extracurricular activities. Student engagement is further defined as a form of student engagement through emotional engagement, cognitive engagement, and behavioural engagement (Fredricks, Blumenfeld, & Paris, 2004; Christenson, Reschly, & Wylie, 2012).

### School Climate

School climate is defined as the atmosphere, the quality of relationships at school that is felt by students. School climate is a concept related to the conditions of a conducive and supportive environment in supporting student success. School climate is defined as a school atmosphere that is related to norms, goals, values in schools, and interpersonal relationships that are built-in schools (Cornell, Shukla, & Konold, 2016; Cohen et al., 2009).

Cohen et al. (2009) said the school climate related to the effectiveness of learning refers to an essential component to realise an active and productive school. The quality of a positive school climate affects the level of productivity and student engagement. The school climate leads to the quality of the school environment, which creates healthy learning. A positive



school climate also mediates parents' aspirations for children, stimulates the creativity and enthusiasm of teachers to carry out the learning process in favour of student development (Gunbayi, 2007; Sujisha & Manikandan, 2014).

### **Self Efficacy**

Self-efficacy is a student's confidence in his ability to achieve desired goals through the actions shown (Bandura, 2009; Schunk & Pajares, 2000; Chang & Chien, 2015). Students' beliefs further explain self-efficacy in assessing their ability to do a job, able to complete a task and be able to achieve the desired result (Caraway, Tucker, Reinke, & Hall, 2003). Self-efficacy is the students' confidence in their abilities. The success of a goal is determined by students' confidence in doing the desired action.

### **Methods**

#### **Population and Sample**

The population in this study was the eighth-grade students of Junior High School in Malang. All respondents were students who are registered as an active student in school and were teenagers (between 12-15 years). The sample of this study consisted of 236 students from several public high schools in Malang. The sampling technique was used in a cluster random sampling technique, i.e., the sampling was done randomly by determining the cluster (Public Junior High School).

#### **Instrument**

The scale used to collect in this study was the Likert scale. The research scale includes three research variables, namely: student engagement scale, school climate scale, and self-efficacy scale. To measure student engagement, it used a range that covering three dimensions, namely; emotional engagement, cognitive engagement, and behavioural engagement refers to the theory (Fredricks et al., 2004). To measure school climate, it used the scale proposed by Cohen et al. (2009), consisting of four dimensions, namely: safety, teaching and learning, interpersonal relationships, and institutional environment. While measuring self-efficacy, it used the scale that referred to the theory of Bandura (1997). This scale consists of three dimensions, namely, magnitude, generality, and strength.

#### **Validity and Reliability**

From the results of the initial trial analysis of the student engagement scale on 236 subjects, it obtained a reliability coefficient ( $\alpha$ ) of 0.907 with a total-item correlation power index ranging from 0.227 to 0.664. Valid and reliable items that were used for research are 24



items. School climate scale trial analysis on 236 subjects obtained a reliability coefficient ( $\alpha$ ) of 0.925 with a corrected total-item correlation power index that moved from 0.398 to 0.665. Valid and reliable items used for research were 27 items. While the self-efficacy scale trial test on 236 subjects obtained a reliability coefficient ( $\alpha$ ) of 0.907 with a corrected total-item correlation power index that moved from 0.359 to 0.638, the items that are considered valid and can be used for research were 26 items.

## Data Analysis

The data analysis in this study used multiple linear regression analysis. This analysis is a statistical analysis technique to determine the effect of school climate and self-efficacy variables on student engagement in junior high school students in Malang. Before conducting a hypothesis test, assumption tests (that was, a test for normality, a linearity test, and a multicollinearity test) were performed. Data analysis was performed using the IBM SPSS 24.0 program for windows.

## Results and Discussion

### Assumption Test

#### 1. Normality Test

The result of the normality test can be seen in table 1. Based on the results of the normality test analysis listed in table 1, it shows that the significance value was  $0.020 > p > 0.05$ , indicating that the data were normally distributed. In other words, the research data was normally distributed.

**Table 1. Normality Test Results**

N		236
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	2.13697986
Most Extreme Differences	Absolute	.064
	Positive	.064
	Negative	-.045
Test Statistic		.064
Asymp. Sig. (2-tailed)		.020 <sup>c</sup>

#### 2. Linearity Test

The result of the linearity test can be seen in Table 2. Based on the results of the linearity analysis in Table 2, the relationship between school climate and self- efficacy to student engagement shows all levels of significance  $p < 0.05$ , meaning that the effect of has a linear line equation in this research.



**Table 2. Linearity Test**

Variable	P Linearity	Sig.	Threshold	Annotation
School Climate* Student Engagement	0,06	.000	P<..05	Linear
Self- Efficacy* Student Engagement	0.386	.000	P<..05	Linear

Source: Research Result, 2020 (processed data)

### 3. Multicollinearity Test

The result of the multicollinearity test can be seen in Table 3. Based on table 3 shows that school climate and self-efficacy have a value of VIF = 1.847 (VIF <10) and tolerance = 0.542 (tolerance > 0.1), indicating no multicollinearity between school climate and self-efficacy in this research.

**Table 3 Multicollinearity Test**

Variable	Tolerance	VIP	Annotation
School Climate	.542	1.847	No multicollinearity
Self- Efficacy	.542	1.847	No multicollinearity

Source: Research Result, 2020 (processed data)

### 4. Heteroscedasticity Test

The result of the heteroscedasticity test can be seen in table 4. Based on table 4 show that significance value of school climate to be 0.628 ( $p > 0.05$ ) and self-efficacy 0.745 ( $p > 0.05$ ). It indicates that there is no heteroscedasticity problem of research variables.



**Table 4 Heteroscedasticity Test**

Variable	Sig.	Threshold	Annotation
School Climate	.628	$P > .05$	No Heteroscedasticity
Self-Efficacy	.745	$P > .05$	No Heteroscedasticity

Source: Research Result, 2020 (processed data)

### 5. Multiple Regression Analysis

The result of multiple regression analysis can be seen in Table 5. The results of multiple linear regression analysis obtained  $R = 0.711$  with  $p = 0,000$  ( $p < 0, 01$ ), which means that school climate and self-efficacy have a very significant effect on student engagement in Junior High School around Malang. These results indicate that the level of student involvement can be determined by the quality of the school climate and self-efficacy. School climate and self-efficacy have a contribution to student engagement by 50.1%, and other factors affect student engagement by 49.9%. Among other factors that can affect student engagement are: self-regulation, motivation, parental involvement, emotional regulation, and so on. In this study, the school climate is an external source that supports and provides environmental comfort to students. Thus students are brave and get encouragement always to be involved and exhibit the best performance. School climate contributes 49.1% to the level of student engagement in schools. This is in line with several research findings which state that school climate is an essential factor to encourage student engagement and success in achieving desired success (Bozkurt & Ozden, 2010; Wang & Eccles, 2013; Adeogun & Olisaemeka, 2011). School climate also shapes the culture of school organisations to be mutually supportive between teachers and students, as well as between fellow students. Such conditions will undoubtedly have an impact on the enthusiasm of students to keep the spirit of completing work, involved in participating in all activities, despite facing difficulties in real life.

**Table 5. Multiple Regression Analysis**

Variable	Adjusted R	R	Sig	Threshold	Annotation
School Climate					
Self-Efficacy					
Student Engagement	0.501	0.711	0.000	$P < 0.01$	Significant Effect



Fredricks and Mccolskey (2012); Gibbs and Poskitt (2010) said that the school climate is an essential factor influencing student engagement in school. Based on the results of a research study conducted by Dary and Pickeral (2013), Lenzi et al. (2014), and Ostroff et al. (2012) show that a positive school climate can encourage students to increase their potential development, increase student engagement in participating in academic activities. School climate has an impact on security, comfort, and students feel they have the support of the school environment to develop more optimally. Thus the school climate influences the increase in student engagement in schools to achieve student academic success.

While self-efficacy includes internal factors that must be possessed by students to foster confidence in their ability to be actively involved and achieve desired achievements (Sun & Rueda, 2012; Abd-Elmotalieb & Saha, 2013), self-efficacy contributed to student engagement by 28%. The results showed that self-efficacy affects the emotional condition of students to believe that they can complete all the work given by the teacher (Martin & Rimm-Kaufman, 2015). Also, self-efficacy encourages engaging in activities in various ways, including discussion and collaboration with friends in completing various assignments. Besides, self-efficacy has an impact on students' confidence that they can solve problems, even though the task given is difficult. It is due to students' confidence in their abilities, which will bring more energy in carrying out activities and showing the best results. Self-efficacy also encourages students to focus on academic activities that lead to the level of cognitive engagement, which is related to focus on completing work (Lindsey, 2011; Arabzadeh & Shafynadery, 2013).

Christenson et al. (2012) said that internal sources influence the process of student engagement in the form of students' confidence in their ability to be actively involved. Self-efficacy of students has a positive impact on the cognitive engagement of all skills possessed by students to be implemented in school involvement (Gibbs & Poskitt, 2010; Christenson et al., 2012). Psychologically it can be described that students who have self-efficacy have an impact on students' optimistic attitude, commitment to participate in activities, and are sure to solve the difficulties of each task received. Students who are confident about facing challenges to complete assignments have an impact on the results of targeted assignments (Fredricks et al., 2011; Linnenbrink & Pintrich, 2003).

Based on the results of this study, the level of student engagement is influenced by internal and external factors in students, namely school climate as an external factor, and self-efficacy is called an internal factor that must be owned by students. The results of this research can also be a reference in developing modules on how to increase student involvement, especially being able to focus on making school climate formulations that have a more dominant contribution in increasing student engagement at school. Therefore, students can improve academic achievement through involvement in the school.





## **Conclusion**

School climate and self-efficacy contribute to the level of student involvement in Junior High School around Malang. There was a very significant influence between school climate and self-efficacy on student engagement. School climate and self-efficacy contributed 50.1% to student engagement, and other factors influenced the remaining 49.9%. The contribution of school climate to student engagement is more dominant than the contribution of self-efficacy to student engagement at school.

## **Recommendation**

Based on the results of this study, there are several recommendations so that students are more involved. The results show that school climate has a more significant influence than self-efficacy. Therefore, schools need to make several programs that support student involvement in school. Schools must build excellent interpersonal skills to support the development of students' potential. In further researchers, data retrieval can be done by triangulation and involving more schools and at all levels. The researcher can then associate various variables related to student engagement, including characteristics, self-regulation, and parental involvement.



## REFERENCES

- Abbing, J. (2013). the Effect of Students' Engagement on Academic Achievement in Different Stages of Their Academic Career From a Dropout Perspective. Retrieved from [http://essay.utwente.nl/64264/1/Abbing J. - S0215767 - bachelorscriptie.pdf](http://essay.utwente.nl/64264/1/Abbing_J_-_S0215767_-_bachelorscriptie.pdf)
- Abd-Elmoteleb, M., & Saha, S. K. (2013). The Role of Academic Self-Efficacy as a Mediator Variable between Perceived Academic Climate and Academic Performance. *Journal of Education and Learning*, 2(3), 117–129. <https://doi.org/10.5539/jel.v2n3p117>
- Adeogun, A., & Olisaemeka, B. (2011). Influence of School Climate on Students' Achievement and Teachers' Productivity for Sustainable Development. *Online Submission*, 8(4), 552–557.
- Arabzadeh, M., & Shafynadery, M. (2013). The effects of teaching self-efficacy on students' cognitive engagement. *Journal of Education Research and Review*, 1(December 2012), 99–103.
- Avsec, S., & Szewczyk-Zakrzewska, A. (2018). Engineering students' self-efficacy and goal orientations about their engineering design ability. *Global Journal of Engineering Education*, 20(2), 85–90.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. (2009). *Cultivate self-efficacy for personal and organizational effectiveness*. In E.A. Locke (Ed.), *Handbook of principles of organization behavior*. (2nd Ed.). New York: Wiley.
- Bozkurt, T., & Ozden, M. S. (2010). The relationship between empathetic classroom climate and students' success. *Procedia - Social and Behavioral Sciences*, 5, 231–234. <https://doi.org/10.1016/j.sbspro.2010.07.078>
- Caraway, K., Tucker, C. M., Reinke, W. M., & Hall, C. (2003). Self-efficacy, goal-orientation and fear of failure as predictors of school engagement in high school students. *Psychology in the Schools*, 40(4), 417–427. <https://doi.org/10.1002/pits.10092>
- Chang, D., & Chien, W. (2015). Determining the Relationship between Academic Self-efficacy and Student Engagement by Meta- analysis. In *2nd International Conference on Education Reform and Modern Management* (pp. 142–145). Atlantis Press.
- Chase, P. A., Hilliard, L. J., John Geldhof, G., Warren, D. J. A., & Lerner, R. M. (2014). Academic achievement in the high school years: The changing role of school engagement. *Journal of Youth and Adolescence*, 43(6), 884–896. <https://doi.org/10.1007/s10964-013-0085-4>
- Christenson, S. L., Reschly, A. L., & Wylie, C. (2012). *Handbook of research on student engagement*. New York: Springer.



- Cohen, J., McCabe, E. M., Michelli, N. M., & Pickeral, T. (2009). Practice , and Teacher Education. *Teachers College Record*, *111*(1), 180–213.
- Cornell, D., Shukla, K., & Konold, T. R. (2016). Authoritative school climate and student academic engagement, grades, and aspirations in middle and high schools. *AERA Open*, *2*(2), 1–18. <https://doi.org/10.1177/2332858416633184>
- Dary, T., & Pickeral, T. (2013). *School Climate Practices for Implementation and Sustainability. A school climate practice brief*. New York. Retrieved from <https://www.schoolclimate.org/publications/documents/SchoolClimatePracticeBriefs-2013.pdf#page=47>
- Dogan, U. (2015). Student engagement academic self efficacy and academic motivation as predictors of academic performance. *Anthropologist*, *20*(3), 553–561.
- Fredricks, J. A., & McColskey, W. (2012). *Handbook of Research on Student Engagement*. Ney York: Springer. <https://doi.org/10.1007/978-1-4614-2018-7>
- Fredricks, J., Blumenfeld, P. C., & Paris, A. H. (2004). School Engagement: potential of the concept, state of the evidence. *Review of Educational Research*, *74*(1), 59–109. <https://doi.org/10.3102/00346543074001059>
- Fredricks, J., McColskey, W., Meli, J., Mordica, J., Montrosse, B., & Mooney, K. (2011). Measuring student engagement in upper elementary through high school: A description of 21 instruments. *Issues and Answers Report*, *098*, 26–27. Retrieved from <http://ies.ed.gov/ncee/edlabs>
- Gibbs, R., & Poskitt, J. (2010). *Student engagement in the middle years of schooling (year 7-10): A literature review*. New Zealand: Ministry of Education.
- Gunbayi, I. (2007). School climate and teachers' perceptions on climate factors: research into nine urban high schools. *The Turkish Online Journal of Educational Technology*, *6*(3), 1303–6521. Retrieved from <http://files.eric.ed.gov/fulltext/ED500058.pdf>
- Lenzi, M., Vieno, A., Sharkey, J., Mayworm, A., Scacchi, L., Pastore, M., & Santinello, M. (2014). How school can teach civic engagement besides civic education: The role of democratic school climate. *American Journal of Community Psychology*, *54*(3–4), 251–261. <https://doi.org/10.1007/s10464-014-9669-8>
- Lindsey, H. (2011). *Self-efficacy, student engagement, and learning in instruductory statistic*. Montana State University. <https://doi.org/10.1360/zd-2013-43-6-1064>
- Linnenbrink, E. a, & Pintrich, P. R. (2003). The role of self-efficacy belief in student engagment and learning in the classroom. *Reading Writing Quarterly*, *19*, 119–137. <https://doi.org/10.1080/10573560390143076>



- Martin, D. P., & Rimm-Kaufman, S. E. (2015). Do student self-efficacy and teacher-student interaction quality contribute to emotional and social engagement in fifth grade math? *Journal of School Psychology, 53*(5), 359–373. <https://doi.org/10.1016/j.jsp.2015.07.001>
- Ostroff, C., Kinicki, A. J., Osteroff, C., Kinicki, A. J., & Muhammad, R. S. (2012). *Organizational Culture and Climate* (Vol. 2). London: John Wiley & Sons. <https://doi.org/10.1002/9781118133880.hop212007>
- Reeve, J. (2012). Handbook of Research on Student Engagement, 149–172. <https://doi.org/10.1007/978-1-4614-2018-7>
- Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Journal, 26*, 207–231.
- Schunk, D. H., & Pajares, F. (2000). Development of Academic Self-Efficacy 1, *1446*, 1–27.
- Sedaghat, M., Abedin, A., & Hejazi, E. (2011). *Motivation , cognitive engagement , and academic achievement. Procedia - Social and Behavioral Sciences* (Vol. 15). <https://doi.org/10.1016/j.sbspro.2011.04.117>
- Shaukat, S. (2012). Teacher Self-Efficacy as a Function of Student Engagement , Instructional Strategies and Classroom Management, *10*(2), 82–85.
- Shukla, K. D., Cornell, D., & Konold, T. R. (2015). School Climate and Student Engagement : A Concurrent Validity Investigation through a Multilevel Multivariate Approach. In *Paper presented at the 2015 Annual Meeting of the American Educational Research Association*. Chicago: Paper.
- Sujisha, T., & Manikandan, K. (2014). Influence of school climate on school engagement among higher secondary. *International Journal of Social Science and Interdisciplinary Research, 3*(6), 188–198.
- Sun, J. C. Y., & Rueda, R. (2012). Situational interest, computer self-efficacy and self-regulation: Their impact on student engagement in distance education. *British Journal of Educational Technology, 43*(2), 191–204. <https://doi.org/10.1111/j.1467-8535.2010.01157.x>
- Veiga, F. H., Galvão, D., Almeida, A., Carvalho, C., Janeiro, I., Nogueira, J., ... Caldeira, S. (2012). Student's engagement in school: A literature review. *Proceedings of ICERI2012 Conference 19th-21 St November*, (November), 1336–1344.
- Wang, M. Te, & Eccles, J. S. (2013). School context, achievement motivation, and academic engagement: A longitudinal study of school engagement using a multidimensional perspective. *Learning and Instruction, 28*, 12–23. <https://doi.org/10.1016/j.learninstruc.2013.04.002>
- Zahid, G. (2014). Direct and indirect impact of perceived school climate upon student outcomes. *Asian Social Science, 10*(8), 90–102. <https://doi.org/10.5539/ass.v10n8p90>