

The Effect of Self-Regulation and Social Support on Student Academic Engagement through Academic Buoyancy

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Article Info

History Articles
Received:
20 February 2024
Accepted:
10 April 2024
Published:
30 April 2024

Keywords:
self-regulation,
social support,
academic engagement,
academic buoyancy

Abstract

Academic engagement holds important and strategic potential to predict students' performance progress in carrying out academic tasks and affect their achievement at school. Such an issue motivated the present research to analyze the effect of self-regulation and social support on students' academic engagement through academic buoyancy at the Junior High School (SMP Penggerak) in Surabaya City. A total of 365 samples were selected using a proportional stratified random sampling technique from a total population of 4,170. The self-regulation, social support, academic engagement, and academic buoyancy scales were used to collect their data. The findings suggest that self-regulation and social support could predict academic engagement and buoyancy. Academic engagement was fully mediated between self-regulation and academic buoyancy. Meanwhile, academic engagement was partially mediated by social support and academic buoyancy. Further implications of this research are reviewed in the discussion.

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INTRODUCTION

School is one of the fundamental parts of life for a person to succeed and develop optimally. His academic achievement determines a person's success at school. Academic achievement is seen as a big step in continuing student's career development, so its role in education in Asian countries such as China, Japan, Korea, Taiwan, and Singapore is considerable (Shih, 2021). Unfortunately, the lack of student involvement in school has become a new national and global issue (Saqinah, 2017). Indeed, when students are fully involved in learning and academic activities at school, the goals of education will be achieved.

Academic engagement is an important mechanism through which the motivation process leads to increased academic achievement and can reduce school dropout rates (Wang & Fredricks, 2004). One of the factors underlying academic engagement is academic buoyancy. Verrier et al. (2018) found that poor academic buoyancy is related to negative outcomes, including anxiety about achievement, bad grades, and temporary loss of engagement.

The relationship between academic emotion and students' academic engagement at school is significantly mediated by academic buoyancy (Sadat & Setayeshiazhari, 2019). However, based on the results of interviews with guidance and counseling teachers at one of the Junior High Schools (SMP Penggerak) in Surabaya City, it was found that problems with students' academic buoyancy led to students'

academic engagement conditions when participating in the learning process.

Low academic buoyancy is indicated by passive attendance in class, pessimism when students get bad grades, neglect of assignments due to difficulties, skipping class, and little attention to the learning process. This phenomenon reflects problems related to academic buoyancy, which can affect student academic engagement, academic performance, and achievement.

Research by Banihashem et al. (2022) concludes that engagement and self-regulation positively relate to student academic success in online courses. Therefore, teachers must understand how to encourage student engagement so that students will be actively involved in online learning. Another finding is that self-regulation influences student engagement in an online learning environment.

Another finding by Ursin et al. (2021) shows the importance of social support in increasing academic buoyancy, coping with stress, mediating the influence of stress on student involvement at school, and reducing disengagement. This explains the positive correlation between the three variables: social support with academic buoyancy and student academic engagement.

Collie et al.'s research (2015) confirmed that social support positively relates to academic buoyancy. As an implication of the research findings, one effort to improve academic outcomes among students is to create healthy homes and communities.

Based on previous research, there is a correlation and positive influence between social support and engagement. However, Ursin et al. (2021) only focused on students' emotional and cognitive involvement in the engagement aspect and is unrelated to behavioral aspects. Hence, the researchers replicated the findings on different samples and added academic buoyancy as an intervening variable.

The present research attempted to follow up and analyze the direct and indirect effects of self-regulation and social support on students' academic engagement through academic buoyancy. Another novelty offered was the existence of a *program called Sekolah penggerak, or initiator school program, that is different from schools in general, where there is an independent curriculum as a new paradigm curriculum started in 2021 from a program launched by the government as the improvement of the 2013 curriculum implementation*. In addition, this research can be significant for guidance and counseling for teachers or school counselors.

The hypotheses in this study are: there is an effect of self-regulation on student academic engagement, there is an effect of social support on student academic engagement, there is an effect of self-regulation on student academic buoyancy, there is an effect of social support on student academic buoyancy, there is an effect of academic buoyancy on student academic engagement, there is an indirect effect of self-regulation on student academic engagement through academic buoyancy and there is an indirect effect of social support on

student academic engagement through academic buoyancy on junior high school students in Surabaya City.

METHODS

365 Junior High school (SMP Penggerak) students in Surabaya City were sampled using a proportional stratified random sampling technique in grades VII, VIII, and IX.

Several instruments were used to collect the students' data. The first instrument was a self-regulation scale developed by Miller and Brown (1991), which was later developed again by Pichardo et al. (2014) with a short version called the Short Self-Regulation Questionnaire (SSRQ), which consists of 17 statement items. It has four aspects, namely goal setting-planning (6 items), perseverance (3 items), decision-making (5 items), and learning from mistakes (3 items). The reliability coefficient based on the alpha value was 0.78.

The second instrument was the social support scale developed by the researchers based on the Zimet et al. concept (1988). It consists of three aspects of social support: family support (5 items), friend support (4 items), and significant other support (6 items). The reliability coefficient based on the alpha value was 0.87.

The third instrument was the academic engagement scale from Fredricks (2004), which covers three aspects of engagement: cognitive engagement (10 items), emotional engagement (19 items), and behavioral engagement (10 items). The reliability coefficient based on the alpha value was 0.95.

The fourth instrument was the academic buoyancy scale developed by Martin and Marsh (2006), a single-construct instrument consisting of four items. The reliability coefficient based on the alpha value was 0.76. Of the four instruments used, respondents indicated the level of agreement with the four options (Strongly Disagree = 1 and Strongly Agree = 4) if the item was favorable and vice versa.

RESULTS AND DISCUSSION

Based on the descriptive statistical test, the mean of each variable was 47.08 (SD = 6.45) for social support, 121.13 (SD = 12.70) for academic

engagement, and 12.44 (SD = 1.90) for academic buoyancy. Table 1 presents the details of these values.

Table 1. *Mean and Standard Deviation*

Variable	Mean	SD
<i>Social-support</i>	47.08	6.45
<i>Academic Engagement</i>	121.13	12.70
<i>Academic Buoyancy</i>	12.44	1.90

Following the descriptive statistical test, the path analysis method was used to obtain two regression models, the results of which are in Table 2. In addition, an online Sobel test was carried out to test the mediating effect of the intervening variable, and the results are presented in Table 2.

Table 2 *Regression Results of the Effect of Self-Regulation and Social Support on Student's Academic Engagement through Academic Buoyancy*

Predictor	β	t	p	R	R ²	F	p
Krit: <i>Academic Buoyancy</i> (Z)				0.443	0.196	44.09	<0.01
<i>Self-regulation</i> (X1)	0.28	5.81	<0.01				
<i>Social Support</i> (X2)	0.27	5.61	<0.01				
Krit: <i>Academic Engagement</i> (Y)				0.670	0.448	97.86	<0.01
<i>Self-regulation</i> (X1)	0.02	0.38	>0.05				
<i>Social Support</i> (X2)	0.44	10.50	<0.01				
<i>Academic Buoyancy</i> (Z)	0.36	8.34	<0.01				
Mediator	z	SE	t	p			
X1-Z-Y	4.719	0.05	5.81	<0.01			
X2-Z-Y	4.754	0.04	5.61	<0.01			

This research used a partial test to determine whether individually (partially) the independent variable affected the dependent variable significantly or not. In Table 2, the regression analysis showed that self-regulation ($\beta = 0.02$, $p > 0.05$) and social support ($\beta = 0.44$, $p < 0.01$) predicted the increase in students' academic

buoyancy. Both self-regulation and social support simultaneously explained the mediation of academic buoyancy by 19.6%. Then, based on the results of the Sobel test analysis in mediation path 1, the results were ($z_{\text{sobel}} = 4.719$, $p < 0.01$), while in mediation path 2, the results were ($z_{\text{sobel}} = 4.754$, $p < 0.01$).

Regarding the regression analysis results, self-regulation had no positive

and significant effect on students' academic engagement, so it was concluded that H_1 was rejected. The findings of this research are in contrast to the results of previous research, which state that initially, the factors that can influence engagement are largely influenced by variables such as self-efficacy, self-regulation, academic emotions, student's interest and environmental contexts such as parenting, family, teacher-student relationships, relationships with friends and extracurricular activities (Pekrun & Linnenbrink-Garcia, 2012). Thus, further research is needed regarding the influence of self-regulation on student academic engagement to validate the findings of this research.

Another variable, social support, had a positive and significant effect on students' academic engagement, so it was concluded that H_2 was accepted. This research's findings align with previous research, which shows a positive relationship and influence between social support and engagement.

However, a study by Ursin et al. (2021) only focused on students' emotional and cognitive engagement from the engagement aspect and did not mention the behavioral aspect. Therefore, this study shows that social support affects academic engagement, both cognitive engagement, affective engagement, and behavioral engagement.

This study's third hypothesis, or H_3 , can be accepted because the research findings prove self-regulation's positive and significant effect on students' academic buoyancy. This study's

findings also strengthen the research results of Tamannaefar and Ghohroudi (2023) and Rohinsa and Handayani (2021).

Previous research shows a positive and significant relationship between self-regulation, self-efficacy, and resilience to academic buoyancy (Tamannaefar & Ghohroudi, 2023). Furthermore, Rohinsa and Handayani (2021) conducted self-regulation training for students. The findings show that students have different abilities in overcoming academic obstacles before and after being given self-regulation training.

In this research, social support significantly affected students' academic buoyancy, so it was concluded that H_4 was accepted. This is relevant to the results of research conducted by Collie et al. (2015), which shows that social support is positively related to academic buoyancy. One implication of these findings is the importance of efforts aimed at promoting healthy homes and communities as a way to improve academic outcomes among students.

Based on Table 2, it was inferred that academic buoyancy had a positive and significant effect on students' academic engagement, so it was concluded that H_5 was accepted. This is similar to the results of research conducted by Sadat and Setayeshiazhari (2019), which states that academic buoyancy significantly mediates the relationship between academic emotions and students' academic engagement at school. A high level of academic buoyancy correlates well with attendance, student engagement in lessons, positive appreciation for school,

persistence, planning, self-confidence, and academic achievement. Therefore, academic buoyancy plays an important role in students' academic success at school.

The indirect effect of self-regulation on students' academic engagement through academic buoyancy can be seen from the results of the Sobel test analysis on mediation route 1. Based on this test, the indirect effect of self-regulation on student academic engagement through academic buoyancy was found to be acceptable. Academic buoyancy successfully mediated between self-regulation and student academic engagement, so H_6 was accepted. Meanwhile, in mediation route 2, the indirect effect of social support on students' academic engagement through academic buoyancy was acceptable. Academic buoyancy has successfully mediated between social support and student academic engagement, so H_7 was accepted.

Based on the findings of this research, academic buoyancy has succeeded in becoming the intervening variable related to the effect of self-regulation and social support on student academic engagement. Attendance, engagement in lessons, positive regard for school, perseverance, planning, self-confidence, and academic achievement were positively associated with high levels of academic buoyancy. As with the previous explanation, this research has proven that self-regulation and social support indirectly affected students' academic engagement through academic buoyancy.

This research found no effect of self-regulation on student academic engagement. However, there was an effect of social support on student academic engagement, an effect of academic buoyancy on student academic engagement, and an effect of self-regulation and social support on student academic engagement through academic buoyancy.

The findings suggest that school counselors can attain some implications, namely increasing students' academic engagement, which is oriented towards increasing their performance and academic achievement, considering that low academic engagement conditions hurt student academics.

Based on previous research, the motivational interviewing approach through group counseling is proven effective in improving students' academic engagement and career maturity (Nurhidayat et al., 2023). Then, the results of research by Putri, Wibowo, and Sugiyo (2021) also show that the cognitive restructuring approach, self-management techniques, and a combination of both effectively reduce academic procrastination through group counseling.

According to research by Dwistia, Purwanto, and Sunawan (2016), a significant increase in classroom engagement among students is achieved following group counseling. It has been confirmed that group counseling with self-management strategies can be applied to increase student classroom engagement. Then, self-instruction techniques and cognitive restructuring techniques through group counseling

also effectively reduce student academic anxiety (Mafirja et al., 2018).

Further research by Nurfitasari, Wibowo, and Sugiharto (2014) states that school counselors at Public Junior High School or SMP Negeri throughout Pati Regency have implemented group counseling services with good criteria. This shows that this region has competent school counselors who provide quality group counseling services. However, there is a need for counseling training for guidance and counseling teachers to support and improve competence in implementing individual counseling and group counseling services at schools.

Specifically, all components in the school, including guidance and counseling teachers, subject teachers, homeroom teachers, and principals, together with students' parents, should synergize and collaborate to provide assistance and guidance. In contrast, school counselors optimize it by providing guidance and counseling services to achieve academic engagement and create social support that makes students comfortable and feel supported at school, such as facing challenges that lead to academic buoyancy when facing daily school assignments. This condition is useful for improving students' academic performance and achievement at school and minimizing school dropout rates.

School counselors must lead the collaboration of all components at school as a part of their comprehensive guidance and counseling services to help students develop optimally according to their talents, interests, and potential.

Meanwhile, several guidance and counseling services are available at schools to increase student academic engagement, social support, and academic buoyancy, which can be provided through guidance and counseling services both individually and in groups.

By making previous efforts, it is expected that the condition of students' academic engagement can be stable or even increase, which later can increase their performance and academic achievement, minimize the dropout rate, and prevent disengagement. Once those are all done, it can be said that guidance and counseling services at schools have proven to be effective in developing students' strength-based or positive characteristics such as engagement and can reduce students' negative characteristics such as academic procrastination and other negative characteristics that are oriented towards improving students' academic performance and achievement at school.

CONCLUSION

The results suggest that self-regulation and social support are important factors that influence academic engagement and buoyancy. Academic engagement was a full mediator between self-regulation and academic buoyancy and a partial mediator between social support and academic buoyancy. For future researchers, it is recommended to use different analysis methods, such as qualitative methods, to obtain more in-depth results. In addition, expanding the scope of research objects and exploring

other factors that affect academic buoyancy in adolescents is very important to provide a more comprehensive understanding. The findings of this study can serve as a strong basis for developing more effective intervention strategies for improving students' academic engagement and achievement.

REFERENCES

- Af Ursin, P., Järvinen, T., & Pihlaja, P. (2021). The Role of Academic Buoyancy and Social Support in Mediating Associations Between Academic Stress and School Engagement in Finnish Primary School Children. *Scandinavian Journal of Educational Research*, 65(4), 661–675. <https://doi.org/10.1080/00313831.2020.1739135>.
- Banihashem, S. K., Farrokhnia, M., Badali, M., & Noroozi, O. (2022). The Impacts of Constructivist Learning Design and Learning Analytics on Students' Engagement and Self-Regulation. *Innovations in Education and Teaching International*, 59(4), 442–452. <https://doi.org/10.1080/14703297.2021.1890634>.
- Collie, R. J., Martin, A. J., Malmberg, L.-E., Hall, J., & Ginns, P. (2015). Academic Buoyancy, Student's Achievement and The Linking Role Of Control: A Cross-Lagged Analysis of High School Students. *The British Journal of Educational Psychology*, 85(1), 113–130. <https://doi.org/10.1111/bjep.12066>.
- Dwistia, H., Purwanto, E., & Sunawan. (2016). Keefektifan Konseling Kelompok dengan Strategi Self Management dalam Meningkatkan Classroom Engagement Siswa. *Indonesian Journal of Guidance and Counseling: Theory and Application*, 5(2). <https://doi.org/10.15294/ijgc.v3i1.3756>.
- Fredricks, J. A., 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>.
- Mafirja, S., Wibowo, M, E., & Sunawan. (2018). Group counseling with Self-Instruction Techniques and Cognitive Restructuring Techniques to Reduce Academic Anxiety. *Jurnal Bimbingan Konseling*, 7 (2) (2018): 173 – 181. <https://doi.org/10.15294/jubk.v7i2.26337>.
- Martin, A. J., & Marsh, H. W. (2006). Cooperative Behaviour in a Prisoners Dilemma–A Terror Management Perspective [R] SELF Research Centre, University of Western Sydney, Australia, 2 Department of Psychology, University of Western Sydney, Australia. *Psychology in the Schools*, 43, 267–282.

- Nurfitasari, N., Wibowo, M, E., & Sugiharto, D, Y, P. (2014). Implementasi Layanan Konseling Kelompok di SMPN Sekabupaten Pati. *Indonesian Journal of Guidance and Counseling*, 3(1).
<http://doi.org/10.15294/ijgc.v3i1.3756>.
- Nurhidayat HL, M., Purwanto, E., & Mulawarman. (2023). The Effectiveness of Group Counseling with a Motivational Interviewing Approach to Improve Students' Academic Engagement. *Jurnal Bimbingan Konseling*, 12 (2) (2023) : 87-93.
<https://journal.unnes.ac.id/sju/index.php/jubk>.
- Pekrun, R., & Linnenbrink-Garcia, L. (2012b). Academic Emotions and Student Engagement. In *Handbook of research on student engagement* (pp. 259–282). Springer.
<https://onlinelibrary.wiley.com/doi/abs/10.1002/Pits.20303>.
- Pichardo, C., Justicia F., de la Fuente J., Martínez-Vicente J. M., & Berbén, A. (2014). Factor Structure of the Self-Regulation Questionnaire (SRQ) at Spanish Universities. *Spanish Journal of Psychology*, (2014), 17, e62, 1–8. doi:10.1017/sjp.2014.63.
- Putri, M, E., Wibowo, M, E., & Sugiyo. (2021). The Effectiveness of Group Counseling with Cognitive Restructuring and Self-Management Techniques to Reduce Academic Procrastination. *Jurnal Bimbingan Konseling*, 10 (1) (2021) : 29-35.
<https://journal.unnes.ac.id/sju/index.php/jubk>.
- Sadat, S., & Setayeshiazhari, M. (2019). The Mediation Roles of Academic Buoyancy and Humor in Relationship Between Academic Emotions and Academic Engagement. *Education Strategies in Medical Sciences*, 12, 26–40.
- Saqinah, N. (2017). Hubungan antara Dukungan Sosial, Motivasi Berprestasi dan Keterlibatan Siswa di Sekolah. *El-idare: Jurnal Manajemen Pendidikan Islam*, 3(2), 53–64.
<http://jurnal.radenfatah.ac.id/index.php/El-idare>.
<https://doi.org/https://doi.org/10.19109/elidare.v3i2.1925>.
- Shih, S.-S. (2021). Factors Related to Taiwanese Adolescents' Academic Engagement and Achievement Goal Orientations. *The Journal of Educational Research*, 114(1), 1–12.
<https://doi.org/10.1080/00220671.2020.1861584>.
- Verrier, D., Johnson, S., & Reidy, L. (2018). The Teacher Academic Buoyancy Scale: Is it possible to keep TABS on students' academic buoyancy? *International Journal of Assessment Tools in Education*, 5(4), 659–667
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52(1), 30–41.