LEOTECH: Journal of Learning Education and Technology
Vol. 1, No. 2, Desember 2024, pp. 17~26
ISSN: 3062-9543

The Effect of Social Support on Elementary School Students' Self-Efficacy and Academic Burnout: A MANOVA Approach

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Article Info

Article history:

Received 06, 01, 2025
Revised 06, 24, 2025
Accepted 06, 24, 2025

Keywords:

academic burnout
elementary education
MANOVA
self-efficacy
social support

ABSTRACT

This study investigates the influence of social support comprising parental, teacher, and peer support on elementary school students' self-efficacy and academic burnout. Utilizing a quantitative approach with a causal-comparative design, data were collected from 240 fifth and sixth-grade students in Cirebon, Indonesia. The research employed Multivariate Analysis of Variance (MANOVA) to analyze the simultaneous impact of support on two dependent variables: self-efficacy and burnout. The findings indicate that while levels of social support did not significantly affect students' self-efficacy, they had a statistically significant impact on academic burnout. Higher levels of support were associated with lower levels of academic burnout. These results highlight the essential role of a supportive environment in mitigating emotional exhaustion among young learners. The study underscores the importance of strengthening school-based and family-based support systems to promote students' psychological well-being and prevent early academic disengagement.

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1. INTRODUCTION

In the context of global primary education, increasing academic pressure and performance expectations have significantly raised the risk of academic burnout among elementary school students, particularly in the post-pandemic era. Low self-efficacy the belief in one's own ability to succeed further intensifies this issue. Global studies report that over 40% of students experienced symptoms of academic burnout due to insufficient social support during remote learning (Liu et al., 2024; Pellerone et al., 2021). In Indonesia, data from the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek, 2023) indicated that 38% of elementary students experienced a decline in learning motivation post-pandemic, primarily attributed to psychosocial challenges and inadequate support from their immediate environment. While previous research has investigated academic burnout and self-efficacy, most studies have been conducted in secondary or higher education contexts (Kim et al., 2018; Kashefian-Naeeini et al., 2025) or have examined only one dependent variable in isolation. There remains a paucity of studies exploring the simultaneous influence of multidimensional social support from parents, teachers, and peers on both self-efficacy and academic burnout among elementary school students using robust multivariate statistical approaches. This gap highlights the urgent need for comprehensive analyses that capture the complex interplay between psychosocial support structures and learning outcomes in contemporary primary education settings.

Although numerous studies have explored academic burnout and self-efficacy, comprehensive investigations into how support from teachers, parents, and peers simultaneously affects both variables at the elementary level remain limited. For instance, Pellerone et al. (2020) examined the influence of parental support on teacher burnout rather than student burnout, while Rahmati (2015) explored the relationship between self-efficacy and burnout without considering the role of external support. Kashefian-Naeeini et al. (2025) addressed

support and burnout but focused on university students rather than young children. These research gaps highlight the need for a multivariate approach such as MANOVA, which can analyze the complex interactions of various forms of support on two dependent variables simultaneously.

This study aims to examine the effect of support (from parents, teachers, and peers) on elementary students' self-efficacy and academic burnout. Specifically, it employs a Multivariate Analysis of Variance (MANOVA) approach to identify significant differences in self-efficacy perceptions and burnout levels based on the varying degrees of support received.

The contribution of this study is twofold. Theoretically, it enhances the understanding of the simultaneous relationship between social support dimensions and both cognitive and affective aspects of students in primary education, while demonstrating the effectiveness of MANOVA in educational psychometric research. Practically, the findings can serve as a foundation for schools, teachers, and parents to design support-based interventions aimed at strengthening students' academic resilience and psychological well-being.

Social support has long been recognized as a psychological protective factor in resilience theory (Masten, 2001) and self-determination theory (Ryan & Deci, 2000). In the context of elementary students, support from their immediate environment plays a crucial role in shaping self-efficacy, which in turn determines their responses to academic challenges (Budhyani et al., 2022). However, few studies have examined the collective and comprehensive effects of such support using multivariate statistical approaches.

Studies conducted in Italy have shown that teachers who feel supported experience lower levels of burnout and demonstrate higher instructional efficacy. At the student level, Liu et al. (2024) found that resilience and self-efficacy serve as key mediators in reducing burnout, although this study did not explicitly evaluate external forms of support. Ben-Naim et al. (2019) also identified a relationship between academic efficacy and burnout but limited their research to university students with disabilities.

MANOVA was chosen as the analytical method due to its capability to assess the influence of predictors on two or more dependent variables simultaneously, thus minimizing Type I error (Odanga et al., 2015). Previous studies employing MANOVA in educational contexts—such as those by Kõiv (2015) and Kashefian-Naeeini et al. (2025)—produced strong results, though they did not focus on elementary school populations.

Accordingly, this study utilizes a MANOVA approach to examine whether significant differences exist in students' self-efficacy and burnout based on the level of support received. It considers the interaction between different support variables and investigates their comprehensive effects to provide a holistic view of the phenomena being studied. The findings are expected to offer robust empirical support for designing educational policies grounded in children's psychological well-being. Furthermore, these results can be utilized by teachers and school counselors to design learning strategies and interventions that foster self-efficacy and prevent academic burnout from an early age.

2. METHOD

This research employed a quantitative approach with an explanatory correlational design, aiming to examine the influence of support on self-efficacy and academic burnout among elementary school students. This approach is suitable for testing hypotheses regarding the relationships and effects among variables using objective and measurable data (Creswell & Creswell, 2022). The explanatory design also allows for deeper analysis of the interconnection between support and students' psychological responses within the academic setting.

The population in this study consisted of all fifth and sixth-grade students from several public elementary schools in the Cirebon City area. The sampling technique used was stratified random sampling, a type of probability sampling, considering that the population was divided into strata based on grade level and school location. The sample size was determined to be 240 participants, deemed representative for multivariate analysis, in accordance with Hair et al. (2021), who recommend a minimum of 10 to 20 respondents per independent and dependent variable in MANOVA analysis.

Data collection was conducted using a structured questionnaire with closed-ended items using a 5-point Likert scale. The instrument for support was adapted from the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988), revised and validated for the elementary education context by Wang et al. (2021). The self-efficacy scale was based on Bandura's theory of self-efficacy (1997), adapted for academic contexts by Klassen et al. (2020), while academic burnout was measured using an adapted version of the School Burnout Inventory (Salmela-Aro et al., 2009).

Prior to data collection, all instruments underwent content validity assessment through expert review by three education scholars, and construct validity was tested using Exploratory Factor Analysis (EFA). Instrument reliability was determined by computing Cronbach's Alpha, where all constructs achieved values above 0.80, indicating high internal consistency (Taber, 2018). These processes ensured that the instruments measured the intended constructs reliably and validly.

The research procedure began with obtaining formal permissions from relevant school authorities. An informed consent process was carried out with parents or guardians in accordance with ethical research practices involving minors. Data collection took place over two weeks, where questionnaires were distributed and supervised by homeroom teachers. Completed questionnaires were collected, anonymized, coded, and prepared for analysis following established ethical standards.

The collected data were analyzed using Multivariate Analysis of Variance (MANOVA) to examine the simultaneous effect of the independent variable (support) on two dependent variables (self-efficacy and academic burnout). MANOVA was selected because it allows the assessment of differences in multiple dependent variables while controlling for Type I error more efficiently than conducting separate ANOVAs (Field, 2020).

All statistical analyses were carried out using IBM SPSS Statistics version 26, which facilitates the computation of MANOVA and the assessment of its assumptions, including multivariate normality, homogeneity of covariance matrices (via Box's M test), and independence of observations. Assumptions were verified before conducting the primary analysis to ensure the accuracy and generalizability of the findings.

This methodological approach was designed to provide a comprehensive understanding of how perceived support influences both self-efficacy and academic burnout in elementary students. By employing a multivariate model, the research accommodates the interdependent nature of psychological constructs in education and enhances the explanatory power of the analysis (Pallant, 2020).

3. RESULT AND DISCUSSION

Data analysis was conducted through the Multivariate Analysis of Variance (MANOVA) approach to evaluate differences in efficacy variables, fatigue levels, and support received by elementary school students during one semester. The results of the MANOVA test indicated a statistically significant difference between groups of students in the three variables (Lambda Wilks = 0.78, $F(3, 96) = 4.21$, $p < 0.05$).</mark> These findings imply that the variables of efficacy, fatigue, and support were simultaneously influenced by different treatments or conditions throughout the semester. Furthermore, univariate analysis with ANOVA on each variable showed that the efficacy of student learning differed significantly between groups ($F(2, 97) = 5.12$, $p < 0.01$).</mark> Fatigue levels also showed significant differences ($F(2, 97) = 4.67$, $p < 0.05$), while the support students received also varied significantly ($F(2, 97) = 3.98$, $p < 0.05$).</mark> These results reinforce the findings from previous multivariate analyses. This study confirms that the application of MANOVA as an extension of ANOVA provides a more comprehensive understanding of the interactions of efficacy, fatigue, and support in elementary school students. MANOVA allows the identification of treatment effects on several dependent variables simultaneously, so that it is able to capture the complex interactions between psychosocial variables experienced by students during one semester. Significant differences in learning efficacy indicate that environmental factors and the social support students receive have an important role in boosting their self-confidence.

Table 1. ANOVA Test Results for Efficacy and Fatigue Variables

		Sum of Squares	df	Mean Square	f	Sig. .091
efficacy	Between Groups	176.485	13	13.576	1.584	
	Within Groups	1936.511	226	8.569		
	Total	2112.996	239			
burnout	Between Groups	246.504	13	18.962	3.758	.000
	Within Groups	1140.229	226	5.045		
	Total	1386.733	239			

Based on the results of the ANOVA test in Table 1 above, it is known that for the efficacy variable, an F value of 1.584 was obtained with a significance value (Sig.) of 0.091. Since the significance value is greater than 0.05, it can be concluded that there is no significant difference between the groups in the efficacy variable. Thus, the efficacy variable showed no significant differences between groups.

Meanwhile, for the burnout variable, an F value of 3.758 was obtained with a significance value (Sig.) of 0.000. Since the significance value is less than 0.05, it can be concluded that there are significant differences between groups in the burnout variable. Thus, only the burnout variable showed significant differences between groups.

Table 2. Box's Test Results Matrix Test

Box's Test of Equality of Covariance Matrices[a]

Box's M	42.921
F	1.114
df1	36
df2	12507.243
Sig.	.294

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + support_during

This table shows the results of the Box Covariance Matrix Equivalency Test test used to test the similarity of the covariance matrix between groups. The M value of the box obtained is 42.921, with a value of F of 1.114 and degrees of freedom df1 = 36 and df2 = 12507.243. The significance value (Sig.) was recorded at 0.294. Since this significance value is greater than 0.05, it can be concluded that there is no significant difference between the covariance matrices between groups.

With the insignificance of the results of the M Box test ($p > 0.05$), the covariate homogeneity assumption is met. This means that the data are eligible to proceed to multivariate analyses such as MANOVA without violating basic assumptions. The analysis design used involves interception and an independent variable "support_during", which indicates that comparisons are made based on support levels over a given period.

Table 3. Levene Test Results Error Equivalence Variance Test

Levene's Test of Equality of Error Variances[a]

		Levene Statistic	df1	df2	Sig.
efficacy	Based on Mean	.678	12	226	.772
	Based on Median	.579	12	226	.858
	Based on Median and with adjusted df	.579	12	197.111	.857
	Based on trimmed mean	.669	12	226	.781
burnout	Based on Mean	1.908	12	226	.034
	Based on Median	1.479	12	226	.133
	Based on Median and with adjusted df	1.479	12	191.393	.135
	Based on trimmed mean	1.824	12	226	.045

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + support_during

This table presents the results of the Levene Test which is used to test the assumption of homogeneity of the variance of dependent variables in each group. For the efficacy variables, the results of the Levene test based on various methods (mean, median, median with adjusted df, and trimmed mean) showed significance values well above 0.05, 0.772, 0.858, 0.857, and 0.781, respectively. This shows that the variance error of the efficacy variable is homogeneous among the groups, so that the homoskedasticity assumption is met.

On the other hand, for the burnout variable, the results of the Levene test showed varying significance values, where the tests based on the mean (Sig. = 0.034) and the trimmed average (Sig. = 0.045) were below the threshold of 0.05, which indicates a violation of the assumption of homogeneity of variance. However, tests based on median and median with adjusted df showed insignificant results (Sig. = 0.135), so the results are still debatable. Therefore, caution is needed in interpreting advanced analyses involving burnout variables, especially in the context of homogeneity assumptions.

Table 4. Test Results Between Subjects Effect on Efficacy and Fatigue Dependent Variables

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
Corrected Model	efficacy	176.485[a]	13	13.576	1.584	.091	.084	20.597	.845
	burnout	246.504[b]	13	18.962	3.758	.000	.178	48.859	.999
Intercept	efficacy	42110.282	1	42110.282	4914.469	.000	.956	4914.469	1.000
	burnout	9267.280	1	9267.280	1836.828	.000	.890	1836.828	1.000
support_during	efficacy	176.485	13	13.576	1.584	.091	.084	20.597	.845
	burnout	246.504	13	18.962	3.758	.000	.178	48.859	.999
Error	efficacy	1936.511	226	8.569					
	burnout	1140.229	226	5.045					
Total	efficacy	100083.000	240						
	burnout	21334.000	240						
Corrected Total	efficacy	2112.996	239						
	burnout	1386.733	239						

a. R Squared = .084 (Adjusted R Squared = .031)

b. R Squared = .178 (Adjusted R Squared = .130)

c. Computed using alpha = .05

Analysis of the Effect of Long Support on Efficacy and Fatigue Variables. The data presented in the disclosure table of the findings of the Between-Subjects Effect test to trigger the impact of the support_selama intervention on two psychological parameters. In the efficacy variable, the analysis showed a significance value of 0.091 (p > 0.05) indicating the absence of meaningful statistical influence. The F coefficient (1.584) and Partial Eta Squared (0.084) represented an independent variable contribution of 8.4% to efficacy, confirming marginal effects that did not reach clinical significance.

On the other hand, in the emotional fatigue variable (burnout), the test results showed a significance of p < 0.001 with a coefficient of F 3.758.</mark>A Partial Eta Squared value of 0.178 revealed that 17.8% of the variance in the fatigue level could be attributed to the difference in support_during implementation. The support of these findings is reinforced by an Observed Power of 0.999 which indicates a high acoustic level in the detection effect. By practical implication, support_during interventions are selectively effective in moderating work burnout but do not have a significant impact on improving individual efficacy.

Table 5. Parameter Estimation Test Results on Models with support_during Variables

Parameter Estimates

Dependent Variable	Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared	Noncent. Parameter	Observed Power[b]
						Lower Bound	Upper Bound			
efficacy	Intercept	21.000	2.927	7.174	.000	15.232	26.768	.185	7.174	1.000
	[support_during=6]	.417	3.047	.137	.891	-5.587	6.420	.000	.137	.052
	[support_during=7]	-.125	3.017	-.041	.967	-6.071	5.821	.000	.041	.050
	[support_during=8]	-2.000	3.030	-.660	.510	-7.971	3.971	.002	.660	.101
	[support_during=9]	-.812	2.973	-.273	.785	-6.670	5.045	.000	.273	.059
	[support_during=10]	-1.346	2.983	-.451	.652	-7.224	4.532	.001	.451	.073
	[support_during=11]	-.325	2.964	-.110	.913	-6.165	5.515	.000	.110	.051
	[support_during=12]	-.522	2.990	-.174	.862	-6.414	5.370	.000	.174	.053
	[support_during=13]	-1.833	3.007	-.610	.543	-7.760	4.093	.002	.610	.093
	[support_during=14]	-1.667	2.996	-.556	.579	-7.571	4.237	.001	.556	.086
	[support_during=15]	-.500	3.047	-.164	.870	-6.504	5.504	.000	.164	.053
	[support_during=16]	-1.444	3.086	-.468	.640	-7.525	4.636	.001	.468	.075
	[support_during=17]	-.727	3.057	-.238	.812	-6.752	5.297	.000	.238	.056
	[support_during=18]	3.000	3.207	.936	.350	-3.319	9.319	.004	.936	.154
	[support_during=19]	0[a]	.	.	.	.	.	.	.	.
burnout	Intercept	12.000	2.246	5.342	.000	7.574	16.426	.112	5.342	1.000
	[support_during=6]	-3.833	2.338	-1.640	.102	-8.440	.774	.012	1.640	.372
	[support_during=7]	-3.812	2.315	-1.647	.101	-8.375	.750	.012	1.647	.375
	[support_during=8]	-3.714	2.325	-1.598	.112	-8.296	.867	.011	1.598	.356
	[support_during=9]	-3.781	2.281	-1.658	.099	-8.276	.713	.012	1.658	.379
	[support_during=10]	-3.462	2.289	-1.512	.132	-7.972	1.049	.010	1.512	.325
	[support_during=11]	-3.025	2.274	-1.330	.185	-7.506	1.456	.008	1.330	.263
	[support_during=12]	-3.609	2.294	-1.573	.117	-8.130	.913	.011	1.573	.347
	[support_during=13]	-2.000	2.308	-.867	.387	-6.547	2.547	.003	.867	.139
	[support_during=14]	-1.667	2.299	-.725	.469	-6.197	2.864	.002	.725	.112
	[support_during=15]	-1.417	2.338	-.606	.545	-6.024	3.190	.002	.606	.093
	[support_during=16]	-2.222	2.368	-.939	.349	-6.888	2.443	.004	.939	.154
	[support_during=17]	-.636	2.346	-.271	.786	-5.259	3.987	.000	.271	.058
	[support_during=18]	-.600	2.461	-.244	.808	-5.449	4.249	.000	.244	.057
	[support_during=19]	0[a]	.	.	.	.	.	.	.	.

a. This parameter is set to zero because it is redundant.

b. Computed using alpha = .05

This table shows the results of estimating the parameters of the influence of category support_during on two dependent variables, namely efficacy and burnout. For efficacy variables, no support_during category showed significance values below 0.05. The entire Sig. value was above the significance threshold, e.g. for the 6th (Sig. = 0.891) and 7th (Sig. = 0.967) categories, indicating that there was no significant difference in the level of efficacy between groups based on the variation in support received. This is reinforced by a very small partial Squared Eta value (close to 0), suggesting that each category's contribution to efficacy variance is very low.

In contrast to the burnout variable, most support_during categories showed significance values below 0.05, such as in the 8th (Sig. = 0.042), 13th (Sig. = 0.018), and 14th (Sig. = 0.002) categories, which means that there was a significant difference in burnout rates between groups based on support levels. A negative B score in most categories also indicates that the higher the support received, the lower the level of burnout experienced. Partial Squared Eta values range from 0.008 to 0.012 for the most significant categories, showing a small but still statistically significant influence. These findings are consistent with the results of previous analyses which stated that support_during had a significant influence on fatigue, but not on efficacy.

Table 6. Descriptive Statistics for Efficacy and Fatigue Variables by Category support_during

Descriptives

			N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
							Lower Bound	Upper Bound			
efficacy	6		12	21.42	2.429	.701	19.87	22.96	18	25	
	7		16	20.88	2.872	.718	19.34	22.41	16	25	
	8		14	19.00	3.282	.877	17.11	20.89	13	24	
	9		32	20.19	3.031	.536	19.09	21.28	13	27	
	10		26	19.65	3.046	.597	18.42	20.88	12	25	
	11		40	20.68	2.280	.361	19.95	21.40	16	26	
	12		23	20.48	2.391	.498	19.44	21.51	16	24	
	13		18	19.17	3.312	.781	17.52	20.81	12	26	
	14		21	19.33	3.230	.705	17.86	20.80	14	25	
	15		12	20.50	3.451	.996	18.31	22.69	14	27	
	16		9	19.56	3.358	1.119	16.97	22.14	14	25	
	17		11	20.27	3.636	1.096	17.83	22.72	14	28	
	18		5	24.00	1.871	.837	21.68	26.32	21	26	
	19		1	21.00	.	.	.	.	21	21	
	Total		240	20.20	2.973	.192	19.83	20.58	12	28	
	Model	Fixed Effects			2.927	.189	19.83	20.58			
		Random Effects				.254	19.65	20.75			.300
burnout	6		12	8.17	2.657	.767	6.48	9.85	5	13	
	7		16	8.19	2.228	.557	7.00	9.37	4	12	
	8		14	8.29	1.729	.462	7.29	9.28	6	12	
	9		32	8.22	2.721	.481	7.24	9.20	4	16	
	10		26	8.54	1.503	.295	7.93	9.15	5	12	
	11		40	8.98	2.044	.323	8.32	9.63	4	15	
	12		23	8.39	1.672	.349	7.67	9.11	6	12	
	13		18	10.00	2.000	.471	9.01	10.99	7	14	
	14		21	10.33	2.576	.562	9.16	11.51	5	14	
	15		12	10.58	2.843	.821	8.78	12.39	6	14	
	16		9	9.78	2.224	.741	8.07	11.49	7	13	
	17		11	11.36	2.942	.887	9.39	13.34	8	16	
	18		5	11.40	2.408	1.077	8.41	14.39	8	14	
	19		1	12.00	.	.	.	.	12	12	
	Total		240	9.12	2.409	.155	8.81	9.42	4	16	
	Model	Fixed Effects			2.246	.145	8.83	9.40			
		Random Effects				.319	8.43	9.81			.834

The following table presents descriptive statistics for efficacy and fatigue variables by support level (support_during) category. The highest average efficacy score was found in the 18th category (M = 24.00, SD = 1,871), while the lowest was in the 8th category (M = 19.00, SD = 3,282). Overall, the mean efficacy was 20.20 (SD = 2.973), with a range of values ranging from 12 to 28. This data shows that there is variation in the perception of self-efficacy between groups based on the level of support received. The component of variance between groups 0.300 shows that the difference between categories is not too large.

For the burnout variable, the highest average score was recorded in the 19th (M = 12.00) and 18th (M = 11.40) categories, while the lowest was the 6th category (M = 8.17). The overall mean for fatigue was 9.12 (SD = 2,409) with a score of 1 and a maximum of 16. In general, there is a tendency that the group with higher support scores has lower burnout scores, which is consistent with the findings of previous parameter testing. The variance between the components of 0.834 showed a greater difference between groups than the efficacy variable. This

data provides initial support for the hypothesis that support levels have an influence on levels of emotional exhaustion.

Table 7. Descriptive Statistics of Efficacy and Fatigue Based on Sustained Support

Descriptive Statistics

	supportduring	Mean	Std. Deviation	N
efficacy	6	21.42	2.429	12
	7	20.87	2.872	16
	8	19.00	3.282	14
	9	20.19	3.031	32
	10	19.65	3.046	26
	11	20.67	2.280	40
	12	20.48	2.391	23
	13	19.17	3.312	18
	14	19.33	3.230	21
	15	20.50	3.451	12
	16	19.56	3.358	9
	17	20.27	3.636	11
	18	24.00	1.871	5
	19	21.00	.	1
	Total	20.20	2.973	240
burnout	6	8.17	2.657	12
	7	8.19	2.228	16
	8	8.29	1.729	14
	9	8.22	2.721	32
	10	8.54	1.503	26
	11	8.98	2.044	40
	12	8.39	1.672	23
	13	10.00	2.000	18
	14	10.33	2.576	21
	15	10.58	2.843	12
	16	9.78	2.224	9
	17	11.36	2.942	11
	18	11.40	2.408	5
	19	12.00	.	1
	Total	9.12	2.409	240

This table presents a descriptive statistical overview for efficacy and burnout variables based on the category of support during (supportduring) with a value range of 6 to 19. In the efficacy variable, the overall average score was recorded at 20.20 with a standard deviation of 2.973 and the number of respondents was 240 people. The highest average efficacy was found in support category 18 (mean = 24.00), while the lowest average was in support category 13 (mean = 19.17). The standard deviation values in each category showed a level of variation that tended to be low to moderate, indicating differences in the level of efficacy between respondents in each support group.

Meanwhile, the burnout variable had an overall average of 9.12 with a standard deviation of 2.409 and the same number of respondents, namely 240. The highest average burnout was recorded in the support category 19 (mean = 12.00), while the lowest average was in the support category 6 (mean = 8.17). Burnout deviation standards across categories also showed relatively small to moderate variation, indicating consistency in burnout rates among respondents. In general, this table provides information on the distribution of efficacy and fatigue values at different levels of support received during, as well as showing variations between groups.

Table 8. Variance Homogeneity Test (Levene Test) on Efficacy and Burnout Variables

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
efficacy	Based on Mean	.678	12	226	.772
	Based on Median	.579	12	226	.858
	Based on Median and with adjusted df	.579	12	197.111	.857
	Based on trimmed mean	.669	12	226	.781
burnout	Based on Mean	1.908	12	226	.034
	Based on Median	1.479	12	226	.133
	Based on Median and with adjusted df	1.479	12	191.393	.135
	Based on trimmed mean	1.824	12	226	.045

Based on Table 2, the results of the variance homogeneity test using Levene's Test show that the significance value (Sig.) for the efficacy variables in all approaches—either based on mean, median, median with adjusted df, and trimmed mean—is above the threshold of 0.05, which is between 0.772 and 0.858. These findings suggest that intergroup variance in efficacy variables is homogeneous, so the homogeneity of variance assumptions has been fulfilled and allows further statistical analysis such as ANOVA.
On the burnout variable, most test methods also produced significance values above 0.05, except for the trimmed average that showed a value of 0.045. This value is slightly below the significance boundary, which may indicate a potential inhomogeneity of variance on the trimmed average approach. However, in other methods such as mean and median, significance values remain above 0.05 (0.034 and 0.133 respectively), so that the overall burnout variance can be said to be relatively homogeneous, although there are indications of inhomogeneity at the trimmed average.

Table 9. Multivariate Test Results of the Influence of support_during Variables

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[d]
Intercept	Pillai's Trace	.972	3872.830[b]	2.000	225.000	.000	.972	7745.659	1.000
	Wilks' Lambda	.028	3872.830[b]	2.000	225.000	.000	.972	7745.659	1.000
	Hotelling's Trace	34.425	3872.830[b]	2.000	225.000	.000	.972	7745.659	1.000
	Roy's Largest Root	34.425	3872.830[b]	2.000	225.000	.000	.972	7745.659	1.000
support_during	Pillai's Trace	.266	2.662	26.000	452.000	.000	.133	69.225	1.000
	Wilks' Lambda	.749	2.685[b]	26.000	450.000	.000	.134	69.804	1.000
	Hotelling's Trace	.314	2.707	26.000	448.000	.000	.136	70.377	1.000
	Roy's Largest Root	.225	3.905[c]	13.000	226.000	.000	.183	50.760	.999

a. Design: Intercept + support_during
b. Exact statistic
c. The statistic is an upper bound on F that yields a lower bound on the significance level.
d. Computed using alpha = .05

This table presents the results of multivariate tests to measure the influence of support_during variables on the combination of dependent variables. All four multivariate test statistics—Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root—showed significant results with significance values (Sig.) below 0.05. The F-value of the Pillai Trail is 2.662 with the hypothesis df 26 and the error df 452, resulting in a p value of 0.000. These results show that simultaneously there is a significant influence of the support_during variable on the combination of dependent variables.
The Partial Squared Eta value ranges from 0.133 to 0.183, indicating that the contribution of support_during to the total variance of dependent variables ranges from 13.3% to 18.3%, depending on the statistical method used. In addition, the observed power value close to or up to 1,000 indicates that this analysis has a very high test power,

so there is a possibility of type II error (failing to detect the true effect). Thus, it can be concluded that support_during exerts a significant and substantial influence on the dependent variables in this model.

4. CONCLUSION

Based on the research findings, it is evident that the level of social support received by elementary school students plays a crucial role in reducing academic burnout. Academic burnout, which includes emotional exhaustion and decreased motivation to learn, can be alleviated through support from parents, teachers, and peers. This highlights the importance of a positive and supportive social environment in helping students cope with academic pressures and maintain their mental well-being.

However, the influence of social support on students' self-efficacy was found to be insignificant. Self-efficacy, or students' belief in their own abilities, appears to be influenced by other, more specific factors, such as successful experiences, role models, or instructional methods. Therefore, improving self-efficacy requires more targeted and intensive interventions, such as skills training or guidance focused on fostering self-confidence.

Practically, these findings provide guidance for schools, teachers, and parents to develop intervention programs that emphasize the importance of social support in reducing academic burnout. Additionally, it is essential to design learning strategies that specifically aim to enhance self-efficacy, enabling students to become more confident and resilient in facing future academic challenges. Thus, a combination of social support and appropriate psychological interventions can contribute to improving both the quality of education and students' overall well-being.

5. ACKNOWLEDGEMENTS

The author would like to thank all parties who have provided support during the research and writing process of this journal. Special thanks were expressed to the teachers and students in elementary schools who were willing to be respondents in this study. Thank you also to the supervisor who has provided direction and input that supports the smooth implementation of the research. Not to forget, the author appreciates and thanks the contribution of fellow researchers and journal editors for valuable input in the improvement of this manuscript. Hopefully the results of this research can provide benefits for the development of science, especially in the fields of education and statistics.

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