



Resilience's Role in Self-Efficacy and Well-Being of Primary Students in Mathematics: Mediation and Moderation Effects

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Abstract: This study explores the role of resilience in influencing self-efficacy and well-being among primary school students in the context of mathematics education. Specifically, the study investigates whether resilience mediates and moderates the relationship between self-efficacy and well-being. The research adopts an explanatory quantitative design with a survey approach, involving 252 primary students from Indonesia. Data were collected using three questionnaires measuring resilience, self-efficacy, and well-being, along with demographic data. The analysis employed mediation and moderation techniques, using SPSS PROCESS macro, to examine the complex interplay between these psychological constructs. The results indicate that resilience acts as a significant mediator in the relationship between self-efficacy and well-being, enhancing the positive effects of self-efficacy on well-being. Moreover, resilience was found to moderate the relationship between self-efficacy and well-being, amplifying the positive impact of self-efficacy. These findings contribute to the understanding of how resilience supports both academic success and emotional well-being in mathematics education, providing new insights into the ways resilience can be leveraged to promote a positive learning environment. The study's significance lies in its potential to inform educational interventions aimed at improving students' resilience, self-efficacy, and well-being, with implications for enhancing academic performance and reducing math-related stress. The findings highlight the importance of fostering resilience in primary school students as a key factor for promoting overall academic success and emotional health.

Keywords: Multifaced, Resilience, Self-Efficacy, Well-Being.

Introduction

Mathematics is a cornerstone of primary education, laying the foundation for logical thinking, problem-solving, and cognitive development (Khairunnisa et al., 2020). Despite its importance, many students face significant challenges in mathematics, including math anxiety, low self-esteem, and a lack of confidence in their mathematical abilities. These challenges not only hinder academic performance but also affect students' emotional and psychological well-being (Costigan et al., 2019; Páez-Gallego et al., 2020). Consequently, addressing these issues in primary education is vital to fostering both academic success and emotional health. Recent educational psychology research has emphasized the critical role of self-efficacy and well-being in overcoming academic difficulties, especially in subjects like mathematics that tend to generate stress and anxiety in young learners.

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Received : 11-09-2025, Revised : 15-11-2025, Accepted : 06-12-2025. DOI: <https://doi.org/10.25217/numerical.v9i2.6630>

Self-efficacy, as defined by Bandura in (Wang & Neihart, 2015), refers to an individual's belief in their ability to succeed in specific tasks. In the context of mathematics, self-efficacy influences how students approach problems, persevere through challenges, and ultimately perform academically. High self-efficacy is linked to better academic outcomes, as students with stronger beliefs in their capabilities are more likely to engage actively with tasks, remain persistent in the face of difficulties, and succeed in their academic pursuits (Cera et al., 2014). However, fostering self-efficacy in mathematics can be challenging for primary students, especially those facing cognitive or emotional barriers such as math anxiety or past academic struggles (Cai, 2019; Ramadhani & Kusuma, 2020). This highlights the need for additional psychological support in helping students build confidence in their mathematical abilities.

Alongside self-efficacy, students' emotional and psychological well-being plays a significant role in their academic performance (Khatri et al., 2024; Petillion, 2020). Well-being encompasses emotional, social, and psychological dimensions, influencing how students cope with stress, maintain motivation, and engage with school-related tasks. Studies have consistently shown that students with higher levels of well-being tend to perform better academically and exhibit greater resilience in the face of However, the relationship between well-being and academic success is complex, particularly in subjects like mathematics, where stress and anxiety can detract from students' overall mental health (Cavanagh & Sparrow, 2010; Wahid et al., 2014). Thus, understanding the factors that enhance both self-efficacy and well-being is critical to improving educational outcomes.

Resilience, broadly defined as the ability to adapt positively to adversity, has been identified as a key factor that supports both self-efficacy and well-being in students (Atahan & Mert Uyangor, 2024). Research suggests that resilient students are better equipped to cope with academic and personal challenges, including difficulties in mathematics. Resilience helps students manage stress, persevere through failure, and maintain positive attitudes toward learning (Aldridge et al., 2020; Dvorsky et al., 2021). In the context of mathematics, resilience could be the key to overcoming math-related stress and anxiety, enabling students to approach problems with confidence and perseverance. Moreover, studies have shown that resilience is a significant predictor of academic success, particularly in challenging subjects like mathematics (Yusuf & Apriliyanti, 2020).

Despite the growing recognition of resilience's role in academic success, there is a significant gap in literature regarding how resilience specifically influences self-efficacy and well-being in mathematics. While some studies have explored the impact of resilience on general academic achievement, few have examined its specific effects in mathematics education (Lee & Ward-Penny, 2022; Turgut & Uğurlu, 2024). Additionally, although resilience has been identified as a factor that promotes well-being, its role in moderating the effects of math-related stress or anxiety is under-researched. Most existing studies tend to focus on resilience in broader academic contexts, without delving into its mediation and moderation effects within a subject-specific domain like mathematics.

This gap in the literature suggests that resilience may play a dual role in influencing students' experiences in mathematics, both by mediating the relationship between self-efficacy and well-being and by moderating the negative effects of math-related stress. By examining resilience from both perspectives, the current study aims to fill this gap and provide a more comprehensive understanding of how resilience impacts primary students' academic and emotional outcomes in mathematics. The novelty of this research

lies in its exploration of resilience as a mediating and moderating factor, providing new insights into the complex interplay between psychological traits and academic success.

This study aims to investigate the role of resilience in the self-efficacy and well-being of primary students, focusing specifically on their experiences in mathematics. The findings of this study will not only contribute to the growing body of literature on resilience but also offer practical implications for educational practice, particularly in developing interventions that promote both academic success and emotional well-being in primary school students.

Method

Research Design

This study adopts an explanatory quantitative research design with a survey approach, utilizing a questionnaire as the data collection instrument (Hair et al., 2019). This design enables systematic measurement of the variables involved and the application of appropriate statistical analyses to address the research questions. The primary aim of the study is to explore the role of resilience in the relationship between self-efficacy and well-being, specifically within the context of primary school students' mathematics achievement. Mediation and moderation analyses will be employed to examine how resilience influences these relationships, providing a deeper understanding of the interactions among self-efficacy, well-being, and academic performance in mathematics.

Participant

The participants in this study are primary school students in Indonesia, specifically focusing on their experiences in mathematics. The sample will be randomly selected, ensuring diversity across various characteristics such as age, gender, and geographical location (Creswell, 2014). Participation in the study will be voluntary, with all participants provided with a Letter of Intent to ensure informed consent. The study aims to involve approximately 252 students to ensure statistical validity in data analysis. Demographic data will also be collected to help identify potential variables for mediation and moderation analysis. The details of the participants are summarized in Table 1 below.

Table 1. Demographic of Participant

Aspect	Amount	Percentage (%)
Gender		
Male	98	38.89
Female	154	61.11
Age		
9 years old	50	19.84
10 years old	108	42.86
11 years old	94	37.30
Geographical Location		
Rural	171	67.86
Urban	81	32.14

The demographic characteristics of the participants in this study are summarized in Table 1. The sample consists of 252 primary school students, with a gender distribution of 38.89% male (n=98) and 61.11% female (n=154), indicating a higher proportion of female students. Regarding age, the participants are divided into three groups: 19.84% (n=50) are 9 years old, 42.86% (n=108) are 10 years old, and 37.30% (n=94) are 11 years

old, ensuring a balanced representation across the different age groups. In terms of geographical location, most of the participants (67.86%, n=171) are from rural areas, while 32.14% (n=81) are from urban locations. This demographic breakdown provides a comprehensive overview of the participants, offering valuable context for the study's focus on resilience, self-efficacy, and well-being in primary school students' mathematics education.

Measurement

In this study, the researcher utilizes two questionnaire instruments and one documentation instrument for data collection. The survey instruments are designed to measure the role of resilience in relation to self-efficacy and well-being among primary school students in the context of mathematics. The first questionnaire assesses students' resilience, while the second questionnaire evaluates their self-efficacy and well-being in mathematics. These instruments aim to explore how resilience influences students' confidence in their mathematical abilities and their overall emotional health.

Student Resilience. The student resilience instrument was adapted from various well-established frameworks to measure students' ability to persevere, reflect, adapt, and manage emotional responses in learning situations (Rahmawati et al., 2024). This instrument consists of three main dimensions: Increased Perseverance (4 items), Increased Reflection and Adaptation (6 items), and Increased Avoidance of Negative Affect and Emotional Response (4 items). These items are designed to capture how students respond to challenges and how they utilize past successes to motivate themselves, as well as how they manage emotions like frustration or anger when facing academic difficulties. The examples provided, such as "I would not accept the tutor's feedback" and "I would probably get annoyed," aim to gauge students' emotional and cognitive responses in the face of learning obstacles. Instrument details can be seen in Table 2 below.

Table 2. Student Resilience Instrument

Dimenssion	Items	Example
Increased perseverance	1-4	I would not accept the tutor's feedback
Increased reflecting and adaptive	5-10	I would use my past successes to help motivate myself
Increased avoidance of negative affect and emotional response	11-14	I would probably get annoyed

Table 3. Student Self-Efficacy Instrument

Dimenssion	Items	Example
Self-Efficacy Scale	1-5	Think of my students as active learners as opposed to information receivers

Student Self-Efficacy. The student self-efficacy instrument measures the students' belief in their own abilities to achieve learning goals, particularly in mathematics. Adapted from established self-efficacy scales, this instrument comprises one-dimension Self-Efficacy Scale, with 5 items (Clark & Raker, 2021). The items are designed to assess how students perceive their own capacity to be active participants in their learning process, as opposed to passive receivers of information. An example item is: "Think of my students as active learners as opposed to information receivers." This dimension helps evaluate students'

confidence in their abilities to take ownership of their learning. Instrument details can be seen in [Table 3](#).

Student Well-Being. The student well-being instrument is designed to evaluate various aspects of students' emotional and psychological health in the context of their learning experiences ([Hill & Seah, 2023](#)). This instrument consists of seven dimensions: Accomplishment (4 items), Cognitions (3 items), Engagement (3 items), Meaning (3 items), Perseverance (3 items), Positive Emotions (3 items), and Relationships (3 items). Each dimension captures a different facet of well-being. For example, the Accomplishment dimension measures how students perceive their progress towards academic goals, with items such as "I feel like I am making progress towards accomplishing my goals in maths." Meanwhile, the Engagement dimension assesses how deeply students become absorbed in their learning, as reflected in items like "When I am doing maths I get completely absorbed in what I'm doing." The overall goal of the instrument is to understand the psychological state of students, including their motivation, emotional response, and social connections in the learning process. Instrument details can be seen in [Table 4](#) below.

Table 4. Student Well-Being Instrument

Dimenssion	Items	Example
Accomplishment (A)	1-4	I feel like I am making progress towards accomplishing my goals in maths
Cognitions (C)	5-7	In maths I understand what I have been learning
Engagement (E)	8-10	When I am doing maths, I get completely absorbed in what I'm doing
Meaning (M)	11-13	I feel like my maths learning is valuable and worthwhile
Perseverance (P)	14-16	I work hard at my maths learning
Positive Emotions (PE)	17-19	When I am doing maths, I have a lot of fun
Relationships (R)	20-22	I have friends that support me with my maths learning when I need it

These three instruments (Student Resilience, Student Self-Efficacy, and Student Well-Being) will be administered to students via online survey platforms. The data collection will span over two months, after which the results will be analyzed to examine the students' emotional and cognitive preparedness, self-confidence, and overall well-being in relation to their learning experiences.

Data Analysis

The data analysis in this study was conducted using a combination of statistical methods to examine the relationships between self-efficacy, resilience, well-being, and mathematics achievement among primary school students. Descriptive statistics were first calculated using SPSS to summarize participant demographics, including age, gender, and geographical location. Means, standard deviations, and frequency distributions were reported to provide an overview of the sample characteristics. To test the hypothesized relationships, Confirmatory Factor Analysis (CFA) was performed using Robust Maximum Likelihood Estimation (RMLE) on the Pearson correlation matrix. The CFA was conducted to evaluate the fit of the measurement model and ensure the reliability of the

constructions. Construct Reliability (CR) and Average Variance Extracted were calculated to assess the internal consistency and validity of the latent variables used in the study.

Mediation and moderation analyses were carried out using the SPSS PROCESS macro to explore the role of resilience in the relationship between self-efficacy, well-being, and mathematics achievement. The analysis focused on understanding whether resilience mediated the effects of self-efficacy on well-being and moderated the impact of self-efficacy on academic performance.

Result and Discussion

Preliminary Studies

Confirmatory Factor Analysis (CFA) was performed on an instrument measuring resilience, self-efficacy, well-being, and mathematics achievement. The CFA model was assessed based on the Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA). According to the guidelines provided by (Hair et al., 2019), a CFI value greater than 0.90 and an RMSEA value less than 0.08 indicate a good model fit. Additionally, the Composite Reliability (CR) value should exceed 0.70, and the Average Variance Extracted value should be greater than 0.50 to ensure the reliability and validity of the constructs.

Resilience. The CFA results for the resilience instrument demonstrated a very good fit for the factor structure, with the CFI value of $\alpha = 0.998$ and RMSEA value of $\alpha = 0.020$. These indices indicate an excellent fit of the model, suggesting that the factor structure is appropriate for measuring resilience in the context of primary school students' mathematics achievement. The factor loadings for each item were found to be statistically significant, with values exceeding the recommended threshold of 0.60, indicating that each item strongly represents the resilience construct. All items were retained as no items needed deletion to achieve an optimal factor structure. Additionally, the CR (composite reliability) and AVE (average variance extracted) values were 0.90 and 0.75, respectively, which are above the recommended thresholds ($CR \geq 0.70$ and $AVE \geq 0.50$), further confirming that the resilience instrument is both valid and reliable.

Self-Efficacy. For the self-efficacy instrument, the CFA analysis yielded a CFI value of $\alpha = 0.996$ and an RMSEA value of $\alpha = 0.025$, which indicates a good fit of the model. These values suggest that the factor structure effectively measures self-efficacy in relation to primary school students' academic performance. The factors loadings for the retained items were all statistically significant, indicating that the items adequately reflect the self-efficacy construct. However, several indicators, specifically SE5, SE9, SE12, and SE15, showed poor factor loading (below the threshold of 0.60), which led to their removal. After removing these items, 16 out of the original 20 items remained. The final CR and AVE values were 0.93 and 0.78, respectively, both of which are well above the recommended thresholds, confirming the validity and reliability of the self-efficacy scale.

Well-Being. The CFA results for the well-being instrument showed a CFI value of $\alpha = 0.992$ and an RMSEA value of $\alpha = 0.030$, indicating a good fit for the factor structure. The factors for most of the items were statistically significant, demonstrating that the well-being instrument effectively captures the construct of well-being in primary school students. However, after further analysis, several items (WB2, WB6, and WB10) had factor loadings lower than the acceptable threshold of 0.60 and were removed. After these deletions, 15 out of the original 18 items remained. The CR and AVE values were 0.89 and 0.71, respectively, which are within acceptable limits ($CR \geq 0.70$ and $AVE \geq 0.50$), confirming the reliability and validity of the well-being instrument.

Correlation Test

Normality testing was conducted to assess whether the data distribution for the variables Self-Efficacy, Resilience, Well-Being, and Mathematics Achievement followed a normal distribution. Normality testing is crucial to ensure that the data meets the necessary assumptions for further statistical analyses. The Kolmogorov-Smirnov and Shapiro-Wilk tests were used to evaluate the normality of the data. The results of both tests measure the extent to which the observed data deviates from a normal distribution.

Table 5. Normality Test

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Self-Efficacy	.042	252	.002	.991	252	.003
AI Prosesess	.042	252	.002	.988	252	.003
AI Transfer	.072	252	.001	.983	252	.000

a. Lilliefors Significance Correction

Source: SPSS

The results of the Kolmogorov-Smirnov and Shapiro-Wilk tests (Table 5) reveal that the data for Self-Efficacy, Resilience, Well-Being, and Mathematics Achievement do not follow a normal distribution. In all four variables, the p-values are less than 0.05, suggesting that the data does not meet the normality assumption. Consequently, non-parametric correlation tests were conducted to ensure the validity of the analysis.

Table 6. Normality Test

		Correlations			
			Self-Efficacy	Resilience	Well-Being
Spearman's rho	Self-Efficacy	Correlation Coefficient	1.000	.850	.723
		Sig. (2-tailed)		.000	.000
		N	252	252	252
	Resilience	Correlation Coefficient	.850	1.000	.799
		Sig. (2-tailed)	.000		.000
		N	252	252	252
	Well-Being	Correlation Coefficient	.723	.799	1.000
		Sig. (2-tailed)	(.000)	(.000)	
		N	252	252	252

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

Source: SPSS

The Spearman's rho correlation results (Table 6) reveal significant relationships among the variables Self-Efficacy, Resilience, and Well-Being. The correlation between Self-Efficacy and Resilience is very strong, with a coefficient of 0.850 ($p < 0.01$), indicating a highly significant positive relationship. This suggests that higher levels of self-efficacy are strongly associated with higher levels of resilience. Similarly, the correlation between Resilience and Well-Being is also strong, with a coefficient of 0.799 ($p < 0.01$), indicating that individuals with higher resilience tend to report higher well-being. Additionally, Self-Efficacy shows a moderate to strong positive relationship with Well-Being, with a coefficient of 0.723 ($p < 0.01$). This indicates that as self-efficacy increases, so does well-being, though the strength of the relationship is slightly weaker compared to that between self-efficacy and resilience. All correlations are statistically significant at the 0.01 level, suggesting that Resilience plays a central role in mediating and potentially moderating the relationships between Self-Efficacy and Well-Being.

Mediation and Moderation Test

Based on the results of the non-parametric correlation tests, it is found that Resilience has the potential to act as a mediator between Self-Efficacy and Well-Being. Following this, mediation analysis was performed using coefficients, standard errors (Se), t-statistics, and p-values to assess the significance and magnitude of the effects of each independent variable on the measured outcomes.

Table 7. Mediation Test

Outcome Resilience				
Model	Coeff	Se	t	p
Content	0.6473	0.0274	23.577	0.0000
Self-Efficacy	8.3564	2.4513	3.408	0.0006
Outcome Well-Being				
Model	Coeff	Se	t	p
Content	3.0818	2.4321	1.2671	0.0257
Self-Efficacy	0.2382	0.0573	4.160	0.0663
Resilience	0.8476	0.0487	17.421	0.0000

Source: SPSS

Based on the results of the mediation analysis (Table 7), Self-Efficacy has a significant effect on Resilience, with a coefficient of 0.6473 and a p-value of 0.0000, indicating a strong and significant relationship between these two variables. Self-Efficacy also significantly affects Resilience, with a coefficient of 8.3564 and a p-value of 0.0006, suggesting that higher levels of self-efficacy are associated with higher levels of resilience. However, the relationship between Self-Efficacy and Well-Being was not found to be statistically significant, with a coefficient of 0.2382 and a p-value of 0.0663, which is just above the conventional threshold of 0.05 for significance. On the other hand, Resilience has a strong and significant effect on Well-Being, with a coefficient of 0.8476 and a p-value of 0.0000, showing that resilience significantly influences well-being. Based on these results, Resilience acts as a significant mediator in the relationship between Self-Efficacy and Well-Being. The indirect effect of Self-Efficacy on Well-Being through Resilience is substantial, confirming the central role of resilience in linking self-efficacy to well-being.

Following the mediation analysis, a moderation analysis was conducted to assess how Resilience influences the relationship between Self-Efficacy and Well-Being. The detailed results of the moderation test are presented on Table 8 below.

Table 8. Moderation Test

Outcome Resilience				
Model	Coeff	Se	t	p
Content	1.2671	2.4321	0.3933	0.6943
Self-Efficacy	0.2382	0.0573	4.160	0.0663
Resilience	0.8476	0.0487	17.421	0.0000
Int_1	0.5672	0.1426	3.978	0.0001

Source: SPSS

The moderation variable Int_1, which represents the interaction between Self-Efficacy and Resilience, shows a highly significant effect on Well-Being, with a coefficient of 0.5672 and a p-value of 0.0001. This indicates that the interaction between Self-Efficacy and Resilience plays an important role in moderating the relationship between Self-Efficacy and Well-Being. The significant interaction suggests that Resilience strengthens the influence of Self-Efficacy on Well-Being. Specifically, when Resilience is high, the positive effect of Self-Efficacy on Well-Being becomes stronger, highlighting the importance of

Resilience in enhancing the impact of Self-Efficacy on Well-Being. Therefore, Resilience acts as a significant moderator in this relationship. The visualization of this model shows in figure 1.

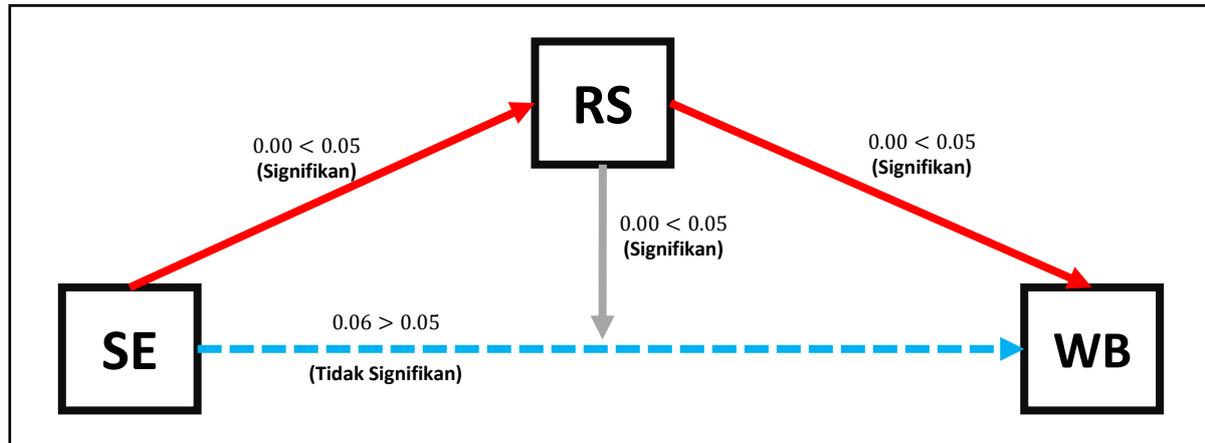


Figure 1. Mediation and Moderation Visualization

This study aimed to explore the role of Resilience as a mediator and moderator in the relationship between Self-Efficacy and Well-Being in the context of primary school students' mathematics achievement. Based on the results, it was found that Self-Efficacy significantly influences Resilience, and Resilience plays a significant mediating role between Self-Efficacy and Well-Being. These findings strengthen Bandura's theory, which emphasizes the importance of self-efficacy in shaping adaptive behavior and an individual's ability to face challenges (Valencia-Vallejo et al., 2019). In other words, higher levels of self-efficacy in students are strongly associated with greater resilience, which, in turn, supports their well-being in both learning and life.

However, the results also revealed that the direct relationship between Self-Efficacy and Well-Being was not statistically significant, suggesting that self-efficacy alone does not have a direct large impact on well-being without the mediation of Resilience (Hayat, 2020). This finding is consistent with Schunk's work, which showed that self-efficacy may not directly enhance well-being unless mediated by other factors, such as resilience, which enables students to better cope with stress and challenges, ultimately improving their well-being (Hallam, 2009). In this case, Resilience acts as a crucial link between self-efficacy and well-being.

This study's findings also align with Masten's theory of psychological resilience, which posits that resilience helps individuals overcome adversity and promote well-being despite external challenges (Qiu et al., 2022). In this research, resilience functions as a protective factor, allowing students to manage academic and social pressures, which ultimately enhances their well-being. Thus, the results provide empirical evidence that resilience plays a central role in improving well-being, not only as a standalone variable but also as a mediator linking self-efficacy with well-being. Furthermore, the moderation analysis revealed that Resilience acts as a significant moderator in the relationship between Self-Efficacy and Well-Being. This indicates that higher levels of resilience amplify the positive effect of self-efficacy on well-being. This finding aligns with Luthans et al. on (Zhao, 2021) theory of Psychological Capital (PsyCap), which suggests that mental resilience can strengthen the relationship between various psychological variables that impact performance and well-being. In this context, Resilience is not just a mediator, but also a factor that enhances the relationship between Self-Efficacy and Well-Being (Aldridge et al., 2020; Lee & Ward-Penny, 2022). However, despite these valuable

insights, there are several limitations to this study that must be considered. First, while the sample size is relatively large (252 participants), the results may not be entirely generalizable to a broader population, particularly outside the context of primary education. Additionally, the reliance on self-reported measures for self-efficacy, resilience, and well-being introduces the potential for social desirability bias or subjectivity.

Nonetheless, the findings of this study contribute significantly to the understanding of the psychological dynamics that influence student well-being, particularly in primary education (Baselmans et al., 2018; Costigan et al., 2019). By highlighting the central role of Resilience, this research lays the foundation for more effective interventions aimed at improving student well-being through the development of self-efficacy and resilience. This also underscores the importance of taking a holistic approach to student well-being, considering the interplay of multiple factors, rather than focusing solely on single variables like self-efficacy. From an educational theory perspective, this study supports the integration of self-regulated learning (Sadovsky & Sessa, 2005) with theories of psychological resilience in developing more comprehensive teaching programs. Given the importance of resilience in helping students overcome challenges, resilience-based approaches could further strengthen teaching and learning in classrooms. Therefore, interventions that focus on enhancing Self-Efficacy and Resilience could be effective strategies for improving Well-Being in students (Chen et al., 2021; Dvorsky, 2021).

As the emphasis on well-being in education grows, this study also has practical implications for curriculum development and teaching strategies that facilitate the development of mental resilience (Páez-Gallego et al., 2020). Programs designed to strengthen resilience, such as problem-based learning and stress management, could positively impact academic achievement and student well-being more broadly. Additionally, this study provides a foundation for future research on the role of Resilience in education. Further research could examine other potential moderators or mediators in the relationship between Self-Efficacy and Well-Being, as well as explore how resilience-based interventions could be implemented in more diverse contexts.

Conclusion

In conclusion, the results of this study demonstrate that Resilience plays a critical role as both a mediator and moderator in the relationship between Self-Efficacy and Well-Being. This study shows that self-efficacy does not directly impact well-being; instead, its positive effect is strengthened through resilience. Resilience serves as a key factor that allows students to cope with stress and challenges, ultimately enhancing their well-being. These findings make a significant contribution to the understanding of how psychological factors interact to influence student well-being in educational contexts. However, the limitations of this study, such as the reliance on self-reported data and the limited generalizability of the findings, suggest the need for future research with larger and more diverse samples, as well as the use of more objective measures. Despite these limitations, the study provides a strong foundation for designing interventions that support the development of Self-Efficacy and Resilience, which will, in turn, improve Well-Being in students. Overall, this research emphasizes the importance of integrating factors like Self-Efficacy and Resilience into educational programs to enhance Well-Being. By focusing on the development of resilience, educators can help students navigate academic and social challenges, which will contribute to their overall well-being and success in education.

Acknowledgements

My sincere thanks go to the participation of all the students involved in this study, whose cooperation made this research possible. I am grateful to my research assistants, colleagues, and friends for their continuous support, and to my family for their love and encouragement throughout this journey. Finally, I would like to acknowledge everyone who contributed, directly or indirectly, to the successful completion of this study.

Author Contribution

MA - Conceptualization, Writing - Original Draft, Editing, and Visualization; YR - Writing - Review & Editing, Formal Analysis, and Methodology; HR - Validation and Supervision; UK - Data Curation, Formal Analysis, and Resources; GK - Investigation, Writing - Review & Editing, and Project Administration.

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