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The Role of Teachers' Spiritual Leadership and Classroom Environment in Student Creativity: The Mediating Role of Students' Positive Psychological Well-Being

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Abstract: Student creativity is crucial for responding to complex academic and social challenges. This study aimed to examine the effects of teachers' spiritual leadership and classroom environment on student creativity by considering positive student psychological well-being as a mediating variable among public senior high school students in Malang, Indonesia. A quantitative explanatory design with a cross-sectional survey was applied. Data were collected from 600 students across 12 public senior high schools in Malang City, Indonesia, using a structured questionnaire measuring teachers' spiritual leadership, classroom environment, psychological well-being, and student creativity. Data were analyzed using partial least squares structural equation modeling (PLS-SEM). Teachers' spiritual leadership and classroom environment significantly improved students' psychological well-being and creativity. Positive psychological well-being was the strongest predictor of creativity and significantly mediated the relationships between both predictors and student creativity. Student creativity develops through the interaction of meaningful teacher leadership, supportive classroom environments, and positive psychological functioning. Schools should strengthen teachers' spiritual leadership and create supportive learning environments that foster students' confidence, resilience, engagement, and creative expression.

Keywords: classroom environment, creativity, psychological well-being, spiritual leadership, students.

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INTRODUCTION

Creativity has attracted increasing attention in secondary education because technological transformation, occupational automation, and complex social challenges require students to generate, evaluate, and refine original and useful ideas. Educational creativity extends beyond artistic talent to encompass fluency, flexibility, originality, elaboration, and the ability to formulate alternative solutions to unfamiliar problems. Evidence from the PISA 2022 creative-thinking assessment indicates that participation in open-ended, collaborative, and expressive school activities is associated with variation in the creative performance of 15-year-old students (Ramos & Araya, 2025). Cross-national evidence suggests that student creativity develops through interactions among personal characteristics, pedagogical support, family resources, and the school's wider social environment (Burakgazi & Reiss, 2025). Experimental research has also shown that cognitive stimulation involving multiple possible solutions produces stronger creative responses than instruction centered on reproducing a predetermined answer (Zhang et al., 2023). Creative learning environments are generally characterized by opportunities for experimentation, tolerance of uncertainty, access

to diverse learning resources, and social acceptance of unconventional ideas (Czibere & Paczári, 2021). Evaluative pressure, rigid instructional structures, and anticipated negative consequences of making mistakes have been associated with students' reluctance to take intellectual risks (Bereczki & Kárpáti, 2021). A recent meta-analytical study has further identified positive associations between creativity and several dimensions of well-being, including positive affect, engagement, meaning, and adaptive psychological functioning (Acar et al., 2021).

In the Indonesian educational context, curriculum policy has incorporated creativity by including creative reasoning among the competencies expected of students. However, international assessment results reveal a substantial gap between policy expectations and demonstrated performance. Indonesian students scored an average of 19 out of 60 on the PISA 2022 creative-thinking assessment, compared with the OECD average of 33, placing Indonesia among the lower-performing participating education systems (Farid et al., 2025). This performance has been linked to instructional practices that continue to emphasize fixed procedures, predetermined answers, content completion, and teacher-directed learning. Research in Indonesian secondary education has found that project-oriented problem solving can improve creative thinking. In contrast, learning environments that provide limited exploratory opportunities produce weaker gains in fluency, flexibility, and originality (Farantika et al., 2024). A STEM project-based intervention involving Indonesian students produced greater improvement in creative-thinking scores than conventional problem-based instruction, with uneven progress across the indicators of fluency, flexibility, originality, and elaboration (Purmanna et al., 2024). Research on STEAM-computational-thinking integration similarly found that students showed flexibility in planning solutions but struggled to critically evaluate and refine their initial ideas (Mariana & Kristanto, 2023). Evidence from differentiated instruction in Indonesian secondary schools indicates that teachers vary in their ability to adapt learning content, processes, and classroom support to students' diverse needs (Hidayat et al., 2024). Studies of Indonesian instructional practices have also identified differences in how much teachers facilitate questioning, intellectual autonomy, dialogical interaction, and the exploration of alternative responses (Fernandes et al., 2024).

At the local level, the nationally identified educational demands are particularly relevant to public senior high schools in Malang City, where students face simultaneous expectations around academic achievement, university admission, character development, psychological adjustment, and participation in creative activities. Comprehensive data simultaneously describing student creativity, teachers' spiritual leadership, classroom environment, and positive psychological well-being across Malang's public senior high schools remain unavailable. A study involving 600 junior and senior high school students in East Java found that classroom rules, positive teaching, teacher support, and classroom management significantly predicted variations in student creativity (Aziz et al., 2025). Research involving high school students in Malang reported differences in fluency, flexibility, originality, and elaboration. However, its restricted sample did not represent all public senior high schools in the city (Irvaniyah et al., 2025). Psychological evidence from Indonesian students showed that 32% of participants had high to very high psychological well-being, 36% were in the moderate category, and 32% had low to very low well-being (Atmoko et al., 2023). An investigation of Indonesian adolescents also documented a high prevalence of loneliness and anxiety, indicating that school participation occurs

alongside substantial emotional and interpersonal pressures (Juliansen et al., 2024). Longitudinal evidence has associated students' positive perceptions of school climate with lower depressive and anxiety symptoms and stronger social-emotional functioning (Wong et al., 2021). Teacher–student relationships, peer support, perceived fairness, school safety, and a sense of connectedness have similarly been associated with adolescent mental well-being and students' willingness to express themselves in classroom settings (Leurent et al., 2021).

Against this background, teachers' spiritual leadership is a relational, value-oriented antecedent that may shape students' willingness to express and develop creative ideas. In classroom settings, spiritual leadership refers to teachers' capacity to articulate a meaningful learning vision, cultivate hope and confidence, demonstrate altruistic concern, and create a sense of membership among students. Empirical evidence from higher education indicates that teachers' spiritual leadership positively predicts student creativity and that this influence operates partly through students' positive psychological capital (Xu, 2024). Instrument-development research has identified vision, hope or faith, and altruistic love as distinguishable dimensions through which students perceive teachers' spiritual leadership in instructional interactions (Capinding, 2025). Research in organizational contexts has also linked spiritual leadership to creative performance through increased intrinsic motivation, meaningfulness, and relational identification (Chiu et al., 2023). In primary and secondary education, spiritual leadership has been found to strengthen psychological resources by satisfying individuals' needs for meaning, connection, and appreciation (Li et al., 2024). Other evidence indicates that trust mediates the relationship between spiritual leadership and psychological well-being, suggesting that leadership values become influential when they are experienced through credible and caring relationships (Li et al., 2025). Teachers' spiritual well-being has also been associated with their capacity to support students' learning, personal development, and psychological adjustment (Pong, 2022).

Alongside teachers' spiritual leadership, the classroom environment provides the immediate social and pedagogical context in which students interpret support, experience emotional safety, and participate in creative activities. This environment encompasses teacher support, peer relationships, student cohesiveness, task orientation, involvement, cooperation, autonomy, and fairness in classroom interactions. A multilevel study involving students aged 10 and 15 found that a positive school climate predicted creativity through growth mindset and self-efficacy, indicating that environmental conditions may influence creative performance through internal psychological resources (Li et al., 2025). Teacher support has also been linked to student well-being, both directly and indirectly through mindfulness and self-efficacy (Wang & Jin, 2025). Evidence on peer and teacher support shows that emotionally supportive relationships contribute to creative thinking by helping students understand, regulate, and use emotional experiences productively (Shi et al., 2025). Classroom relationships may affect creativity dimensions differently, as peer interaction has been found to influence fluency and originality differently depending on students' preferred thinking styles (Lin et al., 2024). A review of school-based evidence identified supportive relationships, belonging, safety, autonomy, competence, and opportunities for meaningful participation as recurring determinants of student well-being (Murray et al., 2024). Psychological well-being in secondary education has correspondingly been conceptualized as a multidimensional condition involving positive emotion, engagement, supportive relationships,

meaning, accomplishment, and adaptive functioning within the school environment (Jiang et al., 2025).

Building on these relational and contextual explanations, positive student psychological well-being may function as the psychological mechanism connecting teachers' spiritual leadership and classroom environment with student creativity. Students who experience positive emotions, meaningful engagement, supportive relationships, self-acceptance, competence, and optimism are more likely to possess the psychological resources required for exploration and intellectual risk-taking. School climate and creativity have been identified as significant predictors of psychological resilience, with variations in social anxiety and students' sense of place contributing to differences in adaptive functioning (Yan & Li, 2025). Research on Indonesian students has also shown that mental well-being is associated with self-compassion, motivation, academic engagement, and attitudes toward psychological support (Kotera et al., 2022). Existing leadership research has predominantly examined spiritual leadership in relation to employee creativity, teacher well-being, organizational commitment, or job performance rather than student creativity in secondary classrooms (Dogbe et al., 2024). Research on classroom climate has more often examined its direct associations with achievement, engagement, mental health, or creativity without simultaneously modeling teachers' value-based leadership (Bosacki et al., 2023). Studies of educational leadership have similarly concentrated on principals' influence and school-level outcomes, leaving teachers' day-to-day leadership within classroom relationships less extensively examined (Bush, 2024). The proposed study examines the direct effects of teachers' spiritual leadership and classroom environment on student creativity, their effects on positive student psychological well-being, and the two indirect pathways operating through positive psychological well-being among students attending public senior high schools in Malang City (Soeharto et al., 2024).

■ LITERATURE REVIEW

Theoretical Framework: Spiritual Leadership Theory and Self-Determination Theory

Spiritual Leadership Theory provides the first theoretical foundation for explaining how teachers' leadership behaviors may influence students' psychological conditions and creativity. Fry (2003) conceptualized spiritual leadership through three interrelated dimensions: vision, hope or faith, and altruistic love, which generate a sense of calling and membership by fulfilling individuals' needs for meaning, appreciation, and social connectedness. Within classroom relationships, vision refers to a teacher's capacity to communicate meaningful learning purposes, hope or faith reflects confidence in students' capacity for development, and altruistic love is manifested through sincere care, patience, acceptance, and respect. Recent evidence indicates that teachers' spiritual leadership is positively associated with student creativity through positive psychological capital and self-esteem, suggesting that students internalize value-based leadership through their psychological resources (Xu, 2024). Spiritual leadership has also been linked to creative performance through autonomy and proactive psychological orientation (Chiu et al., 2023). Studies in primary and secondary educational organizations have found that spiritual leadership predicts well-being through grit, job satisfaction, trust, and perceptions of supportive relationships (Li et al., 2024; 2025). Teachers' spiritual well-being has similarly been linked to their professional capacity to build meaningful relationships and support students' learning and psychological development (Pong, 2022).

Self-Determination Theory constitutes the second theoretical foundation by explaining how social and instructional environments shape

psychological well-being and creativity through the satisfaction of autonomy, competence, and relatedness. Autonomy concerns students' experience of having meaningful choices and personal agency; competence refers to their perception that they can master learning challenges; relatedness concerns feeling accepted, respected, and connected to teachers and classmates (Ryan & Deci, 2020). A classroom environment characterized by intellectual freedom, constructive feedback, manageable challenges, collaboration, and emotionally supportive relationships can satisfy these psychological needs. In contrast, controlling instruction, excessive evaluative pressure, social exclusion, and fear of failure may frustrate them. Empirical evidence shows that a positive school climate influences creativity through growth mindset and self-efficacy, both psychological resources closely connected to perceived competence and adaptive motivation (Li et al., 2025). Teacher support has been found to strengthen student well-being through mindfulness and self-efficacy (Wang & Jin, 2025), while teacher and peer support influence creative thinking indirectly through emotional intelligence and emotion-regulation processes (Shi et al., 2025). Classroom attachment and positive classmate relationships are also associated with stronger creative expression because students become more willing to communicate unconventional ideas within psychologically secure social settings (Zhang et al., 2023).

Conceptual Framework and Research Variables

The conceptual framework positions teachers' spiritual leadership and classroom environment as exogenous variables, positive student psychological well-being as a mediating variable, and student creativity as the endogenous variable. Teachers' spiritual leadership represents students' perceptions of teachers' ability to communicate a meaningful vision, cultivate hope, demonstrate altruistic concern, and establish a sense of belonging within learning relationships (Capinding, 2025; Xu, 2024). Evidence from educational organizations indicates that spiritual leadership contributes to psychological well-being through trust, meaningfulness, and the fulfillment of relational needs (Li et al., 2025). The classroom environment encompasses the social, instructional, and psychological conditions through which students experience teacher support, peer cohesion, participation, cooperation, task orientation, investigation, and equity (Li et al., 2025; Lin et al., 2024). Students' attachment to their classroom and positive relationships with classmates have also been associated with stronger creative expression (Zhang et al., 2023), while positive teaching, classroom management, and teacher support contribute to variation in student creativity (Aziz et al., 2025). Positive psychological well-being includes positive emotion, engagement, supportive relationships, meaning, accomplishment, and adaptive functioning in school (Jiang et al., 2025; Wang & Jin, 2025). Supportive relationships with teachers and peers may affect creativity through emotional and self-regulatory resources (Shi et al., 2025), while creative performance reflects students' capacity to produce fluent, flexible, original, elaborated, and useful ideas (Irvaniyah et al., 2025). The operational definitions, measurement indicators, and sources of each research construct are presented in Appendix A.

Hypothesis Development

Teachers' spiritual leadership and classroom environment are expected to influence student creativity both directly and indirectly through positive student psychological well-being. Teachers who communicate a meaningful vision, demonstrate altruistic concern, and express confidence in students' potential may strengthen students' sense of purpose, belonging, and

positive psychological functioning (Li et al., 2025). Empirical evidence indicates that teachers' spiritual leadership positively influences student creativity by developing positive psychological resources and self-esteem (Xu, 2024). A supportive classroom environment may satisfy students' needs for autonomy, competence, and relatedness while reducing their fear of presenting unconventional ideas. Positive school climate has been associated with creativity through growth mindset and self-efficacy, indicating that contextual influences can operate through students' internal psychological resources (Li & Li, 2025). Teacher support also contributes to student well-being through mindfulness and self-efficacy (Wang & Jin, 2025), while supportive relationships with teachers and peers influence creative thinking through emotional intelligence (Shi et al., 2025). Students with positive relationships and a strong sense of attachment to their classroom are more willing to communicate, explore, and refine creative ideas (Zhang et al., 2023).

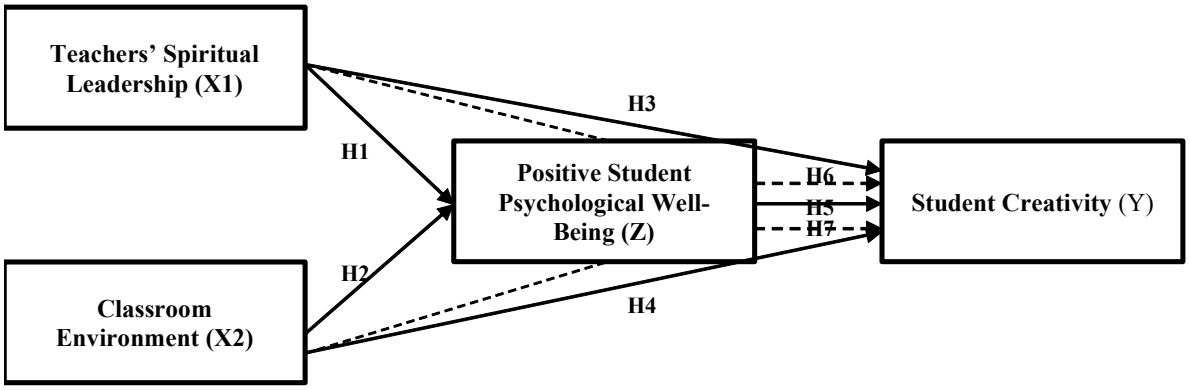


Figure 1. Flow of research design

Research Hypotheses

H1: Teachers' spiritual leadership has a positive and significant effect on positive student psychological well-being.

H2: Classroom environment has a positive and significant effect on positive student psychological well-being.

H3: Teachers' spiritual leadership has a positive and significant effect on student creativity.

H4: Classroom environment has a positive and significant effect on student creativity.

H5: Positive student psychological well-being has a positive and significant effect on student creativity.

H6: Positive student psychological well-being mediates the positive effect of teachers' spiritual leadership on student creativity.

H7: Positive student psychological well-being mediates the positive effect of classroom environment on student creativity.

■ METHOD

Research Design

This study employed a quantitative explanatory research design to examine the direct and indirect relationships among teachers' spiritual leadership, classroom environment, positive student psychological well-being, and student creativity. Data were collected through a cross-sectional survey, in which students' perceptions of the four constructs were measured at a single point in time using a structured questionnaire. The explanatory design is appropriate because the study tests a theoretically

specified causal model in which teachers' spiritual leadership and classroom environment are exogenous variables, positive student psychological well-being is a mediating variable, and student creativity is the endogenous variable. The proposed hypotheses were analyzed using partial least squares structural equation modeling (PLS-SEM), which enables the simultaneous assessment of measurement quality and structural relationships involving multiple latent constructs. PLS-SEM is also suitable for estimating mediation effects, explaining the variance in endogenous constructs, and evaluating the model's predictive capacity under data conditions that may not meet multivariate normality assumptions (Hair et al., 2020). The unit of analysis was the individual student enrolled in a public senior high school in Malang City, as the research variables are measured from students' perceptions and psychological experiences.

Research Location, Population, Sample, and Sampling Technique

The study was conducted in 12 public senior high schools in Malang City, East Java, Indonesia. The target population consisted of students enrolled in Grades X, XI, and XII during the data collection year. A total of 600 students were selected as respondents, with 50 students representing each school. This sample size was considered adequate for PLS-SEM analysis to estimate the direct and mediated relationships among the research constructs. The study employed disproportionate stratified multistage random sampling. Each school was treated as a school-level stratum, followed by proportional allocation of respondents across Grades X, XI, and XII and random selection from official student lists or randomly selected classes. Participants were required to be actively enrolled, have attended the selected school for at least one semester, and provide informed consent when required. Students who were absent during data collection, submitted incomplete questionnaires, or declined participation were excluded from the study. The detailed distribution of respondents across schools is presented in Appendix B. The proportional allocation of respondents within each school was calculated using the following formula:

$$n_{gh} = \frac{N_{gh}}{N_g} \times 50$$

Where n_{gh} represents the number of respondents allocated to grade *h* in school *g*, N_{gh} represents the number of students in grade *h*, N_g represents the total number of students in school *g*, and n_g represents the total sample allocated to each school. Based on this calculation, when student enrolment was relatively balanced across grades, the sample allocation consisted of approximately 17 students from Grade X, 17 students from Grade XI, and 16 students from Grade XII in each school.

Data Types, Sources, Data-Collection Techniques, and Research Instruments

This study used primary quantitative data collected directly from students through a structured questionnaire measuring teachers' spiritual leadership, classroom environment, positive student psychological well-being, and student creativity. Secondary data related to student enrolment, grade distribution, and school profiles were obtained from participating schools to develop the sampling frame. The questionnaire was administered in printed and online formats using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The initial instrument included 75 items adapted from established instruments: 18 items for teachers' spiritual leadership, 21 items for classroom environment, 18 items for positive student psychological well-being, and 18 items for student creativity. After instrument evaluation, the measurement model used 25 indicators

representing the theoretical dimensions of the four constructs. These indicators were obtained through the aggregation of related items within each dimension rather than arbitrary item elimination. The detailed mapping between the original items and final indicators is presented in Appendix C. Prior to data collection, the instrument underwent translation and back-translation, expert assessment, and pilot testing to evaluate clarity, content validity, and preliminary reliability.

Data-Analysis Technique

The data were analyzed using partial least squares structural equation modeling (PLS-SEM) with SmartPLS. The analysis consisted of two stages: evaluating the outer model and evaluating the inner model. The outer model was assessed for validity and reliability using outer loadings, Cronbach's alpha, composite reliability, average variance extracted (AVE), and the heterotrait–monotrait ratio (HTMT). The inner model was evaluated by examining the relationships among research variables through path coefficients, coefficient of determination (R^2), effect sizes (f^2), and predictive relevance (Q^2). The significance of direct and mediation effects was tested using bootstrapping with 5,000 subsamples at a 5% significance level. The criteria used for evaluating the measurement and structural models are presented in Appendix D.

■ RESULT AND DISCUSSION

Respondent Characteristics

This section presents the demographic and academic characteristics of the 600 students participating in the study. The characteristics examined include age, gender, grade level, learning concentration, extracurricular participation, and place of residence. These characteristics provide contextual information for understanding variations in students' perceptions of teachers' spiritual leadership, classroom environment, positive psychological well-being, and creativity. The distribution of respondent characteristics is presented in Table 1.

Table 1. Distribution of respondent characteristics

Category	Subcategory	Frequency (n)	Percentage (%)
Age	15 years	72	12.0
	16 years	198	33.0
	17 years	228	38.0
	18 years or older	102	17.0
Gender	Male	274	45.7
	Female	326	54.3
Grade level	Grade X	204	34.0
	Grade XI	204	34.0
	Grade XII	192	32.0
Learning concentration	Science and Mathematics	238	39.7
	Social Sciences	196	32.7
	Languages and Humanities	68	11.3
	Flexible or no formal concentration	98	16.3
Extracurricular participation	Actively participates	378	63.0
	Occasionally participates	132	22.0
	Does not participate	90	15.0
Place of residence	Malang City	492	82.0
	Outside Malang City	108	18.0
Total respondents		600	100.0

The respondents' characteristics indicate a diverse representation of senior high school students across different academic levels and learning backgrounds. The relatively balanced representation across grade levels allows the study to capture students' experiences at different stages of secondary education. The diversity of academic concentrations and extracurricular involvement also provides broader contextual variation in students' learning experiences, social interactions, and opportunities for creative engagement. Furthermore, including students from both Malang City and surrounding areas contributes to a broader understanding of how classroom environments and teacher-related experiences may shape students' psychological well-being and creativity.

Descriptive Statistics and Correlation Analysis

Descriptive statistics and correlation analysis provided an initial overview of the research constructs before evaluating the measurement and structural models using PLS-SEM. The mean scores of the four research variables are presented in Figure 2.

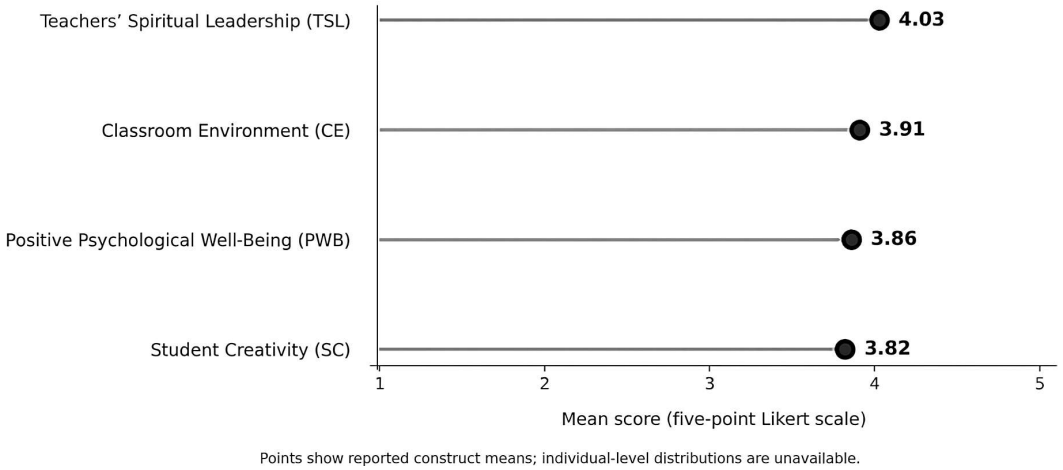


Figure 2. Comparison of mean scores across research constructs. Note: The figure presents the reported mean scores for teachers' spiritual leadership (4.03), classroom environment (3.91), positive student psychological well-being (3.86), and student creativity (3.82), measured using a five-point Likert scale.

Figure 2 presents the mean scores of the four research constructs. Teachers' spiritual leadership recorded the highest mean (M = 4.03), followed by classroom environment (M = 3.91), positive student psychological well-being (M = 3.86), and student creativity (M = 3.82). The relatively narrow range of mean scores suggests broadly favorable student perceptions across the measured constructs. The higher mean for teachers' spiritual leadership indicates more favorable ratings of teachers' value-oriented leadership practices relative to the other constructs. These descriptive comparisons should be interpreted cautiously because the available aggregated results do not provide sufficient information to evaluate individual response variability or statistical differences between construct means.

Outer Model Evaluation

The measurement model was assessed to examine indicator reliability, construct reliability, convergent validity, and discriminant validity. Indicator reliability was evaluated using outer

loadings, while construct reliability and convergent validity were assessed through Cronbach's alpha, rho_A, composite reliability, and average variance extracted (AVE). Discriminant validity was evaluated using the Fornell–Larcker criterion. The results of the measurement model assessment are presented in Table 2 and Table 3, while the outer model structure and indicator loadings are illustrated in Figure 3.

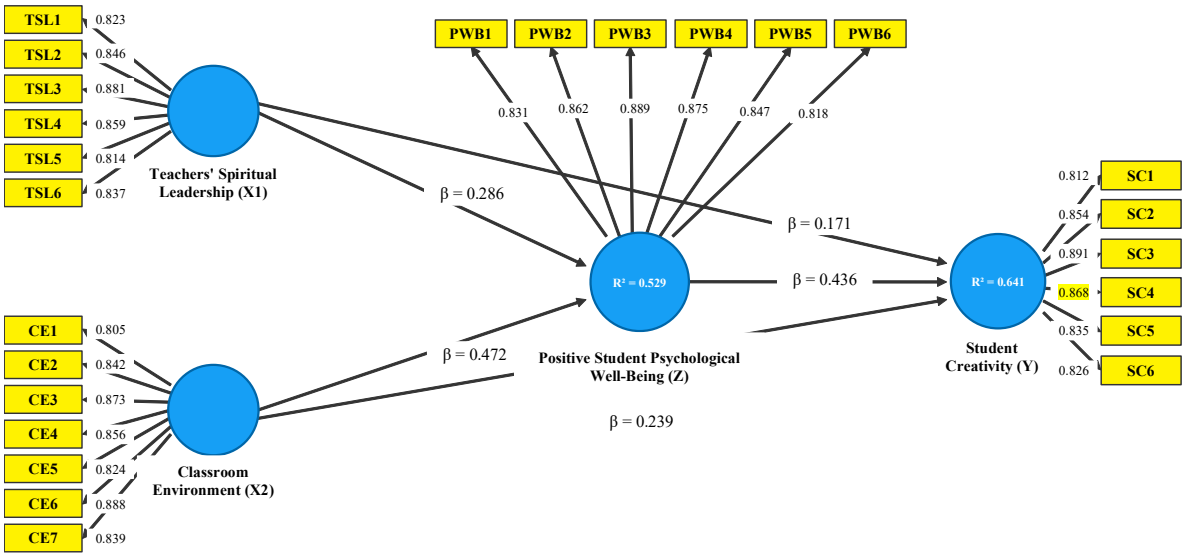


Figure 3. Outer model

Table 2. Reliability, convergent validity, and outer loadings

Construct	Indicator Loading Range	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Teachers' Spiritual Leadership	0.814–0.881	0.919	0.921	0.937	0.712
Classroom Environment	0.805–0.888	0.934	0.936	0.947	0.717
Positive Student Psychological Well-Being	0.818–0.889	0.926	0.928	0.942	0.729
Student Creativity	0.812–0.891	0.922	0.924	0.939	0.719

The measurement model evaluation demonstrated satisfactory indicator reliability, internal consistency, and convergent validity across all four constructs. Indicator outer loadings ranged from 0.805 to 0.891, exceeding the recommended threshold of 0.70. Cronbach's alpha values ranged from 0.919 to 0.934, while composite reliability values ranged from 0.937 to 0.947, indicating satisfactory internal consistency. The average variance extracted (AVE) values ranged from 0.712 to 0.729, exceeding the minimum criterion of 0.50 and supporting convergent validity. For Student Creativity, the SC4 indicator (Elaboration) exhibited an outer loading of 0.868, consistent with the reported indicator loading range of 0.812–0.891. The Fornell–Larcker criterion further supported discriminant validity, as the square root of AVE for each construct exceeded its correlations with other constructs. Collectively,

Table 3. Fornell–Larcker criterion

Variable	CE	PWB	SC	TSL
Classroom Environment (CE)	**0.847**			
Positive Student Psychological Well-Being (PWB)	0.682	**0.854**		
Student Creativity (SC)	0.641	0.736	**0.848**	
Teachers' Spiritual Leadership (TSL)	0.598	0.629	0.574	**0.844**

these results indicate that the measurement model meets the required reliability and validity criteria for subsequent structural model evaluation.

Inner Model Evaluation

The structural model was evaluated by examining the coefficient of determination (R^2) and effect size (f^2). R^2 indicates the explanatory power of the endogenous constructs, while f^2 assesses each predictor construct's contribution to explained variance. The results of the structural model assessment are presented in Table 4.

The structural model assessment indicates that the model provides moderate explanatory

Table 4. Structural model assessment results

Endogenous Construct	R^2	Adjusted R^2	Predictor Construct	f^2	Effect Size
Positive Student Psychological Well-Being (Z)	0.529	0.527	Teachers' Spiritual Leadership (X1)	0.112	Small
	0.529	0.527	Classroom Environment (X2)	0.291	Medium
Student Creativity (Y)	0.641	0.639	Teachers' Spiritual Leadership (X1)	0.047	Small
	0.641	0.639	Classroom Environment (X2)	0.092	Small
	0.641	0.639	Positive Student Psychological Well-Being (Z)	0.268	Medium

power for Positive Student Psychological Well-Being and substantial explanatory power for Student Creativity. The findings show that Classroom Environment contributes more strongly to students' psychological well-being than Teachers' Spiritual Leadership. Meanwhile, Positive Student Psychological Well-Being demonstrates an important contribution to Student Creativity, indicating its role as a key mechanism linking the external factors to students' creative outcomes. Overall, the effect sizes confirm that the predictor constructs meaningfully contribute to explaining the endogenous variables in the model.

Direct and Indirect Effects Analysis

The direct and indirect effects were assessed using the bootstrapping procedure with 5,000 subsamples. The significance of the structural relationships was evaluated based on path coefficients, t-statistics, and p-values, while mediation effects were further examined using 95% bias-corrected bootstrap confidence intervals. The results of the direct and indirect effects analysis are presented in Table 5.

The direct effect analysis indicates that all hypothesized relationships were positive and statistically significant. Teachers' Spiritual Leadership had a significant effect on Positive Student Psychological Well-Being ($\beta = 0.286$, $t = 4.673$, $p < 0.001$). At the same time, Classroom Environment showed a stronger positive effect on Positive Student Psychological Well-Being (â = 0.472, t = 7.894, p < 0.001). Furthermore, Teachers' Spiritual Leadership ($\beta = 0.171$, $t = 2.812$, $p = 0.005$) and Classroom Environment

Table 5. Direct and indirect effects analysis

No.	Relationship	Effect Type	β	T-Statistic	P-Value	95% Bias-Corrected CI	Decision
1	TSL → PWB	Direct	0.286	4.673	< 0.001	—	Significant
2	CE → PWB	Direct	0.472	7.894	< 0.001	—	Significant
3	TSL → SC	Direct	0.171	2.812	0.005	—	Significant
4	CE → SC	Direct	0.239	3.947	< 0.001	—	Significant
5	PWB → SC	Direct	0.436	7.126	< 0.001	—	Significant
6	TSL → PWB → SC	Indirect	0.125	4.018	< 0.001	[0.064, 0.186]	Significant
7	CE → PWB → SC	Indirect	0.206	6.142	< 0.001	[0.140, 0.272]	Significant

($\beta = 0.239$, $t = 3.947$, $p < 0.001$) significantly predicted Student Creativity. Positive Student Psychological Well-Being demonstrated the strongest direct effect on Student Creativity ($\beta = 0.436$, $t = 7.126$, $p < 0.001$), highlighting its important role in explaining students' creative outcomes.

The mediation analysis indicated that positive student psychological well-being significantly mediated the association between teachers' spiritual leadership and student creativity ($\beta = 0.125$, $t = 4.018$, $p < 0.001$), as well as the association between classroom environment and student creativity ($\beta = 0.206$, $t = 6.142$, $p < 0.001$). The corresponding approximate normal-theory 95% confidence intervals were [0.064, 0.186] and [0.140, 0.272], respectively, calculated from the reported coefficients and t-statistics. Both intervals excluded zero, consistent with the reported statistical significance of the indirect effects. The indirect association through psychological well-being was stronger for classroom environment than for teachers' spiritual leadership. These findings suggest that supportive teacher leadership and classroom conditions are associated with student creativity both directly and indirectly through positive psychological well-being. The reported confidence intervals are normal-theory approximations rather than bias-corrected bootstrap estimates because the original bootstrap confidence interval outputs were unavailable.

The positive effect of teachers' spiritual leadership on students' psychological well-being indicates that leadership enacted through meaningful vision, altruistic concern, hope, and value-oriented interaction can become an important psychological resource for senior high school students. This finding aligns with Xu (2024), who showed that teachers' spiritual leadership strengthens students' positive psychological capital by creating purpose and confidence in learning. Spiritual leadership may therefore be experienced not as doctrinal instruction, but as relational guidance that helps students feel appreciated and psychologically secure. The validity of evaluating spiritual leadership through students' observations has also been established by Capinding (2025), particularly through the dimensions of vision, hope or faith, and altruistic love. Evidence from school organizations further shows that spiritual leadership facilitates trust and perceived fairness, which contribute to psychological functioning (Li et al., 2025). This interpretation aligns with Li et al. (2023), who linked spiritual leadership to healthier psychological responses within educational organizations. Positive psychological resources, including optimism, efficacy, hope, and resilience, can also reduce the psychological consequences of academic pressure (Zewude & Hercz, 2021). In the context of public senior high schools in Malang, spiritually oriented leadership may therefore operate through everyday teacher

conduct, including respectful communication, ethical consistency, encouragement, and recognition of students' individual worth.

The classroom environment exerted a stronger effect on positive student psychological well-being than teachers' spiritual leadership, suggesting that students' psychological conditions are particularly responsive to the immediate social and instructional context in which learning occurs. A supportive classroom provides opportunities for participation, interpersonal acceptance, and the safe expression of uncertainty, all of which reduce the psychological risks associated with evaluation and peer judgment. The multidimensional nature of classroom and school climate has been demonstrated by Molinari & Grazia (2023), whose findings indicate that classroom practices and the broader school atmosphere are interconnected despite differences in how students, teachers, and parents perceive them. Teacher support also strengthens the effect of school climate on students' motivation and adaptability (Zhao et al., 2023). Within the classroom itself, students' attachment to place can strengthen creativity through more constructive peer relationships (Zhang et al., 2023). A related study by Xu et al. (2022) found that psychological resilience transmitted part of the influence of students' sense of place on creativity, demonstrating that environmental perceptions become meaningful through internal psychological processes. Classroom relationships may also generate complex effects because certain forms of peer interaction can constrain creative fluency and originality when conformity pressures are present (Lin et al., 2024). The comparatively large coefficient for classroom environment in the present study reflects the cumulative influence of teacher support, peer relationships, emotional safety, classroom organization, and opportunities for active participation.

Teachers' spiritual leadership and classroom environment also demonstrated significant direct effects on student creativity, although their coefficients were smaller than their effects operating through psychological well-being. The direct contribution of spiritual leadership supports the proposition that teachers can stimulate creativity by communicating an inspiring purpose, expressing confidence in students' potential, and framing learning as personally meaningful. Xu (2024) similarly identified teachers' spiritual leadership as a predictor of student creativity, with psychological capital and self-esteem explaining part of this relationship. Creativity is also sensitive to instructional design; Zhong et al. (2024) found that teaching models and intrinsic motivation shape students' creative development. The role of the learning environment is reinforced by Jiang et al. (2025), who reported that an innovative classroom atmosphere enhances students' creative performance through classroom participation and supportive learning conditions. Creative environments that permit exploration and reinforce a growth-oriented interpretation of ability also strengthen students' creative self-efficacy and thinking (Ma et al., 2024). Teacher development centered on creative agency has been associated with greater joy, resilience, empathy, and confidence in innovative teaching practices (Anderson et al., 2022). These findings suggest that creativity among students in Malang public senior high schools is facilitated when teachers combine ethically grounded influence with classroom practices that tolerate divergent responses, encourage questioning, and treat mistakes as part of intellectual exploration.

Positive student psychological well-being emerged as the strongest direct predictor of student creativity, revealing that creativity is not solely a cognitive capability but also depends on students' emotional and psychological readiness to engage with uncertainty. Students who experience optimism, resilience, self-acceptance, and positive engagement are more likely to propose unconventional ideas because they

possess greater psychological capacity to tolerate ambiguity and possible failure. The association between psychological resources and creativity is supported by Yan & Li (2025), who identified creativity and school climate as salient predictors of psychological resilience. Positive psychological capital has likewise been positioned as a resource that supports adaptive engagement and constructive academic functioning (Guerrero-Alcedo et al., 2022). A broader review by Murray et al. (2024) emphasized student voice, safety, connectedness, and opportunities to fail without humiliation as central conditions for well-being in schools. The interdependence of creativity and well-being is also evident in creativity-focused mindfulness practices, where reflective awareness enables learners to regulate emotion while remaining open to novel possibilities (Henriksen & Shack, 2020). Controlled environmental evidence indicates that exposure to restorative educational spaces can simultaneously improve students' well-being and creative performance (Xu et al., 2025). The strong path from psychological well-being to creativity in the present model therefore reflects the role of positive affect, resilience, confidence, and psychological safety in expanding students' willingness to experiment with ideas.

The significant indirect effects demonstrate that positive student psychological well-being partially mediates the effects of both teachers' spiritual leadership and classroom environment on student creativity. This partial mediation indicates that leadership and classroom conditions retain direct instructional and social influences while also developing the psychological resources that make creative behavior more likely. This pattern parallels Xu et al. (2022), in which psychological resilience mediated the relationship between environmental attachment and creativity. Creative education interventions can similarly improve psychological safety, demonstrating that environmental and pedagogical conditions shape creativity through affective mechanisms (Franklin et al., 2023). Henrickson et al. (2024) reported that creative engagement can strengthen belonging and reduce loneliness, illustrating a reciprocal relationship in which well-being supports creativity and creative participation reinforces well-being. School climate also contributes to students' social and emotional competency development (Castro et al., 2025), while explicit instruction in psychological well-being can improve young people's emotional understanding and coping skills (Clarke & Hoskin, 2022). The stronger indirect effect of classroom environment suggests that improving creativity requires coordinated attention to interpersonal safety, student autonomy, inclusive participation, constructive feedback, and classroom organization alongside the value-oriented leadership exercised by teachers

■ CONCLUSION

This study demonstrates that teachers' spiritual leadership and classroom environment significantly influence student creativity, both directly and indirectly through positive student psychological well-being. The classroom environment has a stronger effect on psychological well-being than teachers' spiritual leadership, indicating that supportive interactions, psychological safety, inclusive participation, and constructive learning practices are important conditions for students' positive psychological functioning. Positive student psychological well-being emerges as the strongest direct predictor of creativity, confirming that optimism, resilience, confidence, and positive engagement enable students to express original ideas and respond adaptively to intellectual challenges. The significant indirect effects indicate that positive psychological well-being partially mediates both relationships, meaning teachers' spiritual leadership and classroom environment continue to affect creativity directly while also developing the

psychological resources that support creative behavior.

Theoretical and Practical Implications

The findings extend spiritual leadership theory and positive psychology by showing that value-oriented teacher behavior can influence student creativity through students' psychological well-being in a secondary-school context. The model also positions the classroom environment as both an instructional context and a psychological resource rather than merely a physical learning setting. Public senior high schools in Malang should integrate spiritual leadership principles into teacher professional development by strengthening meaningful vision, ethical consistency, altruistic concern, encouragement, and respect for students. Classroom practices should provide students with autonomy, constructive feedback, collaborative learning, equitable participation, and opportunities to experiment without fear of humiliation. School-based creativity programs will be more effective when creative instruction is accompanied by systematic support for students' optimism, resilience, self-confidence, sense of purpose, and emotional security.

Limitations and Future Research

The cross-sectional survey design restricts causal interpretation because the relationships among spiritual leadership, classroom environment, psychological well-being, and creativity were measured at a single point in time. The study was conducted exclusively in public senior high schools in Malang, so its findings may not fully represent students in private schools, vocational schools, faith-based institutions, or other sociocultural settings. Self-reported measurements may also be affected by social desirability and common method bias, particularly when students assess teacher behavior and their own creativity. Future research should employ longitudinal, experimental, or multilevel designs to examine changes in creativity across students, classrooms, and schools; incorporate teacher evaluations and performance-based creativity measures; compare different school categories and regions; and investigate additional mechanisms such as creative self-efficacy, intrinsic motivation, psychological safety, student engagement, and peer support.

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