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Gamification Group Counseling to Enhance Academic Resilience among Students with Learning Disabilities: The Mediating Role of Academic Self-Efficacy

A Muh Ramadhan AS[1], Wahyu Nurhamzah [2], Rustinah[3], Muhammad Ilham Bakhtiar[4]
[1,2] Guidance and Counseling, STKIP Andi Matappa, Indonesia
Email: ramadhan@matappa.ac.id
[3] Elementary school teacher education, STKIP Andi Matappa, Indonesia
Email: rustina@matappa.ac.id
[4] Guidance and Counseling, Universitas Negeri Makassar, Indonesia
Email: ilhambakhtiar@unm.ac.id

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Abstract. This study aims to test the effectiveness of a group counseling intervention based on gamification, joyful learning, in improving the academic resilience of students with learning disabilities and to analyze the role of academic self-efficacy as a mediating variable in this relationship. The study used a quantitative approach with a quasi-experimental design (pretest-posttest control group design). It involved 60 junior high school students selected using a purposive sampling technique, consisting of 30 students in the experimental group and 30 students in the control group. Data were collected using academic self-efficacy and academic resilience scales that had undergone validity and reliability tests. Data analysis was conducted using SEM-PLS. The results showed that the structural model had good explanatory capabilities in explaining the relationship between variables. Joyful learning proved to be the most dominant factor in improving students' academic resilience. Counselor competence also had a positive and significant effect on academic resilience, although it did not have a significant direct effect on the development of learning independence (self-learning development). In addition, academic resilience showed a positive but not yet significant effect on self-learning development. Findings indicate that enjoyable, meaningful, and participatory learning experiences play an important role in strengthening the academic resilience of students with learning disabilities.

Keywords:
Group Counseling:
Gamification;
Joyful Learning;
Academic Resilience;
Academic Self-Efficacy;
Learning Disabilities.

Coresponden author:
A Muh Ramadhan AS
Addres: Tumampua, Pangkajene, South Sulawesi
Email: ramadhan@matappa.ac.id

INTRODUCTION

Academic resilience is an important foundation for students with learning disabilities, as it supports them in facing challenges and achieving success in the future

(Sarkar & Gupta, 2024). Academic resilience is very important to help overcome various learning problems and improve learning outcomes, especially for students who face obstacles in academic, social, and emotional aspects and individuals who remain resilient, rise, and develop in the face of challenges, pressure, or failure in the context of learning (Martin & Marsh, 2006). Students with learning disabilities have complex academic challenges (Miranti & Ansoriyah, 2024) due to neurological impairments that affect the ability to read, write, do math, or process information (Beaudoin et al., 2024; Lerner & Johns, 2015). These obstacles can reduce motivation to learn, increase the risk of academic stress, and hinder students from reaching their full potential (Nur et al., 2024). Students with learning disabilities often tend to withdraw from learning activities (Aristiantika & Widiono, 2024; Morosini et al., 2025), have difficulty forming social relationships and feel inferior due to repeated failures (Carey et al., 2023; Miranti & Ansoriyah, 2024), increased student anxiety about learning (Vizhi & Rathnasabapathy, 2024), has difficulty remembering math concepts (Chang & Lin, 2024; Gersib et al., 2024) Difficulty understanding the text and reluctance (Alarcon et al., 2023; Wang et al., 2023). Difficulty organizing tasks and materials (Farida & Dahlena, 2023), and takes longer to understand new material (Heitplatz et al., 2022).

Guidance and counseling play a key role in helping students develop a positive perception of themselves and their environment (Ramadhan AS, 2022) and improve learning retention (Harahap et al., 2025; Sarshar et al., 2024). In practice, conventional approaches to group counseling have not yet fully adapted (Raidila et al., 2024) to meet the needs of students with learning disabilities, who tend to require visual stimuli, engaging activities, and enjoyable learning experiences (Alkhawaldeh & Khasawneh, 2024). A fun and meaningful learning experience through the Joyful Learning approach (Anggoro et al., 2024; Jeet & Pant, 2023). Joyful Learning emphasizes the importance of a fun learning environment (Diputera et al., 2024), participatory and meaningful, capable of enhancing students' emotional engagement and intrinsic motivation (Diputera et al., 2024; Jeet & Pant, 2023). When combined with gamification, which involves the use of game elements such as challenges, points, and rewards in a non-game context (Alramammnh et al., 2024), Joyful Learning can enhance the effectiveness of group counseling, particularly for students with learning disabilities (Domínguez et al., 2013). The use of gamification for children with learning disabilities can boost students' intrinsic motivation (Alkhawaldeh & Khasawneh, 2024) as well as his self-efficacy (Kiljunen et al., 2024), Therefore, group counseling that incorporates the Joyful Learning gamification approach will enhance the academic resilience of students with learning disabilities.

Previous research on the academic resilience of students with learning disabilities has been conducted, but the majority of these studies have focused on cognitive behavioral therapy, problem-solving and assertiveness training, group counseling, and stress management, (Gyereh & Shukla, 2024; Radez et al., 2023; Shahzadehahmadi et al., 2023) Art therapy (Wijaya et al., 2024), and relaxation therapy (Adigun et al., 2024). While the use of gamification in education has begun to show positive effects on student motivation and participation, its application in group counseling for students with learning disabilities remains limited, particularly given the lack of a Joyful Learning framework. This is the gap that the researcher aims to address. Research on gamification in counseling is currently limited to studies on gamification in multicultural counseling (Bruce, 2019), Identifying barriers to gamification for students with special needs (Karumanoorthy & Tahar, 2020), Gamification through career counseling (Brandenburger & Janneck, 2023), Gamification is used to improve the learning skills of individuals with disabilities (Hussein et al., 2023) However, it has not specifically addressed its effects on academic resilience. Furthermore, while the Joyful Learning approach has been shown to increase students' motivation and enthusiasm for learning, its integration with group counseling and the academic resilience of students with special needs has not been extensively studied. The novelty of this research lies in the Joyful Learning Gamification-Based Group Counseling Intervention, which offers a new approach to helping students with learning

disabilities build adaptive academic resilience by providing a fun, structured, engaging, and supportive environment for addressing academic challenges. However, it has not specifically addressed its effects on academic resilience. Furthermore, while the Joyful Learning approach has been shown to increase students' motivation and enthusiasm for learning, its integration with group counseling and the academic resilience of students with special needs has not been extensively studied. The novelty of this research lies in the Joyful Learning Gamification-Based Group Counseling Intervention, which offers a new approach to helping students with learning disabilities build adaptive academic resilience by providing a fun, structured, engaging, and supportive environment for addressing academic challenges.

This research will contribute to the development of guidance and counseling service models in inclusive schools and provide a new perspective that is more enjoyable, participatory, and beneficial as a guide for school counselors in working with students. To address the issues and findings of the analysis above, this study aims to determine: (1) the effect of academic resilience in students with learning disabilities before and after receiving the Joyful Learning gamification-based group counseling intervention; (2) the difference in academic resilience levels between students who participated in the Joyful Learning gamification-based group counseling intervention (experimental group) and those who did not; (3) whether the Joyful Learning gamification-based group counseling intervention model is structurally effective in improving the academic resilience of students with learning disabilities.

H1 : Counselor Competence has a positive and significant effect on Academic Resilience.
H2 : Joyful Learning has a positive and significant effect on Academic Resilience.
H3 : Counselor Competence has a positive and significant effect on Self-Learning Development.
H4 : Joyful Learning has a positive and significant effect on Self-Learning Development.
H5 : Academic Resilience has a positive but not significant effect on Self-Learning Development.

METHOD

Research Design

This study employs a quantitative approach using an explanatory research design aimed at testing causal relationships among variables and explaining the mechanism through which a gamification-based group counseling intervention using "joy learning" influences the academic resilience of students with disabilities, with academic self-efficacy serving as the mediating variable. The explanatory approach was chosen because it allows the researcher to test a structural relationship model involving both direct and indirect effects between latent constructs simultaneously (Hair et al., 2021).

The research design used was a quasi-experimental design with a pretest-posttest control group design. This design involved two groups: the experimental group, which received a counseling intervention based on the gamified "joy learning" approach, and the control group, which received regular guidance and counseling services from the school. Measurements were taken before and after the intervention to determine changes in academic self-efficacy and academic resilience in both groups. The quasi-experimental design is considered appropriate for use in educational and counseling research because it allows for testing the effectiveness of interventions under natural school conditions without fully randomizing the research participants (Creswell & Guetterman, 2024).

Population and Sample

The study population consisted of all students at SMP Negeri 2 Pangkajene identified as having learning disabilities based on school assessment results, academic records, and recommendations from guidance and counseling teachers. The characteristics of students with learning disabilities in this study refer to students who experience specific learning barriers that impact academic achievement, yet still participate in the learning process in regular classes.

The sample was determined using a purposive sampling technique, considering certain criteria: (1) identified as students with learning disabilities, (2) willing to participate in all research activities, and (3) obtaining

consent from parents or guardians. The study sample size was 60 students, consisting of 30 students in the experimental group and 30 students in the control group. This sample size was considered sufficient for Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis because this method has good ability to estimate models with relatively small to medium sample sizes and does not require strict assumptions of data normality. (Hair et al., 2017; Henseler et al., 2015).

Data Collection Procedure

Data collection was carried out in four stages. The first stage was the identification of research participants through coordination with schools and guidance and counseling teachers to determine students who met the criteria for learning disabilities. The second stage was a pretest using academic self-efficacy and academic resilience instruments to obtain a snapshot of the respondents' baseline condition before treatment. The third stage was the implementation of a group counseling intervention based on gamified joy learning. The intervention was conducted in eight sessions, each lasting 90–120 minutes. Counseling activities were designed to integrate group dynamics, educational games, a reward system, group challenges, reflection on learning experiences, and collaborative activities focused on the principles of meaningful learning, mindful learning, and enjoyable learning. The gamification approach was chosen because it has been proven to increase participant engagement, learning motivation, and positive learning experiences (Deterding, 2019). At the same time, the control group continued to receive routine guidance and counseling services at the school without the standard gamification elements. The fourth stage was a posttest after all intervention sessions were completed. The final measurement used the same instrument as the pretest to determine changes in academic self-efficacy and academic resilience after the intervention.

Instrumen Penelitian

The research instrument used a closed-ended questionnaire with a five-level Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Before being used in the main study, all instruments underwent content validation by guidance and counseling and educational psychology experts. Construct validity and reliability were then tested through measurement model analysis using SmartPLS. The academic self-efficacy instrument was developed based on the Academic Self-Efficacy theory proposed by (Bandura, 1977; David, 2015), namely an individual's belief in their ability to organize and carry out the actions necessary to achieve academic success. Meanwhile, the academic resilience instrument was developed based on the concept of academic resilience.

RESULTS AND DISCUSSION

Results of the Structural Model Analysis

A structural equation modeling analysis using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach was conducted to test the causal relationships among the constructs, namely Counselor Competence (CC), Joyful Learning (GJL), Academic Resilience (AR), and Self-Learning Development (SLD). The evaluation of the internal model is demonstrated through path coefficients and the coefficient of determination (R^2). Based on the analysis results in the PLS-SEM Model Figure, it was found that the Academic Resilience (AR) construct had an R^2 value of 0.947. This indicates that 94.7% of the variance in Academic Resilience is explained by Counselor Competence and Joyful Learning, while the remaining 5.3% is explained by other factors outside the research model. Meanwhile, the Self-Learning Development (SLD) construct has an R^2 value of 0.908, indicating that 90.8% of the variance in Self-Learning Development can be explained by Counselor Competence, Joyful Learning, and Academic Resilience. This value indicates that the model has very strong predictive power and meets the substantial category in PLS-SEM structural model evaluation.

The results of the direct relationship test between variables indicate that Counselor Competence has a positive effect on Academic Resilience, with a path coefficient of $\beta = 0.277$. Additionally, Joyful Learning has a stronger positive effect on Academic Resilience, with a value of $\beta = 0.706$. Regarding the endogenous construct of Self-Learning Development, Counselor Competence showed a positive influence with

a β value of 0.091, while Joyful Learning had a positive influence of β = 0.503. Academic Resilience was also found to have a positive influence on Self-Learning Development with a β value of 0.369. These findings indicate that the Joyful Learning approach is a dominant factor in enhancing both Academic Resilience and Self-Learning Development among students.

Overall, the research results indicate that the conceptual model developed possesses high explanatory power in elucidating the relationships among constructs. Joyful Learning contributes to building students' academic resilience, which in turn leads to improved self-directed learning abilities. On the other hand, Counselor Competence also makes a positive contribution, although with a relatively lower influence compared to the Joyful Learning approach. These findings reinforce the view that a pleasant, meaningful, and supportive learning environment is a crucial factor in the development of students' academic capacity and independent learning.

Data Analysis

The Partial Least Squares–Structural Equation Modeling (PLS-SEM) approach was used in this study because it offers strong predictive power and is capable of analyzing complex structural relationships involving multiple latent constructs and indicators simultaneously. Data analysis and hypothesis testing were conducted using SmartPLS 4 software in accordance with methodological recommendations (Hair et al., 2017), which states that PLS-SEM is highly suitable for modeling causal relationships among psychological and educational constructs. The structural model in this study consists of four latent constructs: Counselor Competence (CC), Joyful Learning (GJL), Academic Resilience (AR), and Self-Learning Development (SLD).

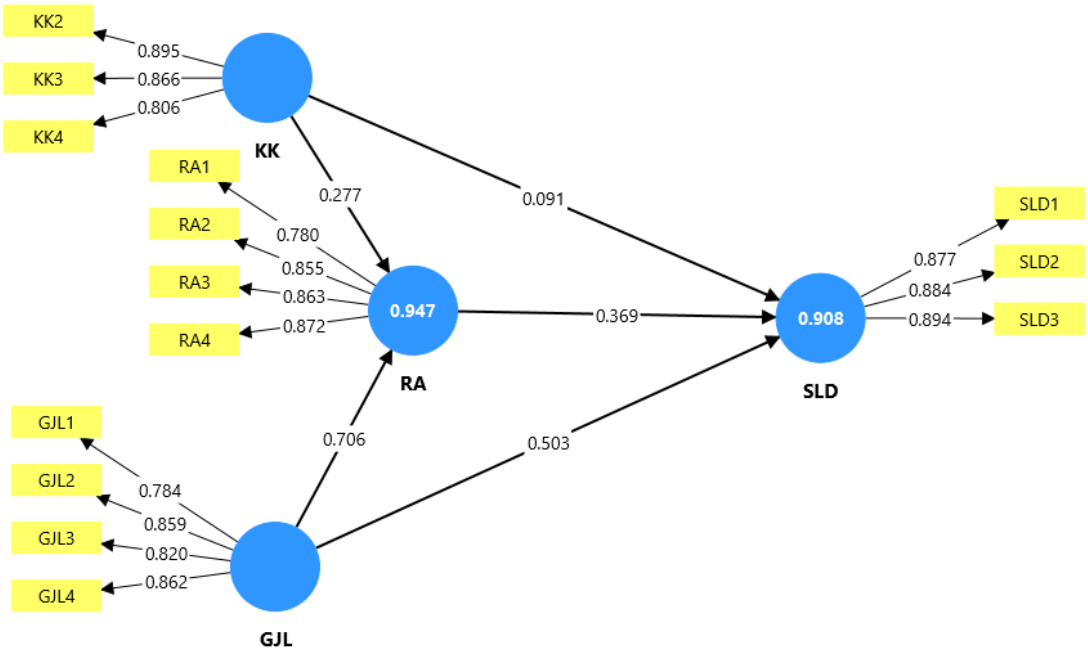

Figure 1. Model Struktural (Inner Model)

The results of the SEM analysis indicate that the model possesses very strong predictive and explanatory power. The coefficient of determination (R^2) for the Academic Resilience construct is 0.947, meaning that 94.7% of the variance in Academic Resilience can be explained by Counselor Competence and Joyful Learning. Meanwhile, the Self-Learning Development construct has an R^2 value of 0.908, indicating that 90.8% of the variance in Self-Learning Development can be explained by Counselor Competence, Joyful Learning, and Academic Resilience. These values indicate that the structural model constructed falls into the substantial category or possesses an excellent level of explanatory power.

Structurally, Joyful Learning showed the strongest positive influence on Academic Resilience, with a path coefficient of β = 0.706, followed by the influence of Counselor Competence on Academic Resilience, with a path coefficient of β = 0.277. In predicting Self-Learning Development, Joyful Learning also exhibits a fairly significant positive influence with a value of β = 0.503, while Academic Resilience exerts a positive influence of β = 0.369. Meanwhile, the direct influence of Counselor Competence on Self-Learning Development is relatively lower, at β = 0.091. These findings indicate that the Joyful Learning approach is the primary determinant in enhancing students' Academic Resilience and Self-Learning Development. Additionally, Academic Resilience serves as a crucial mechanism that strengthens students' ability to develop independence and self-development in learning. Overall, the SEM model developed effectively explains the causal relationships among the constructs within the context of education and counseling.

Evaluation of Measurement Models

The measurement model in this study employs a reflective approach to the constructs of Counselor Competence, Joyful Learning, Academic Resilience, and Self-Learning Development. The model was evaluated through tests of convergent validity and construct reliability. Convergent validity was evaluated based on outer loading values and Average Variance Extracted (AVE). An indicator was deemed to have convergent validity if it met an outer loading value above 0.70, indicating that the indicator adequately represented the latent construct (Hair et al., 2021).

The results of the SEM analysis indicate that all indicators have outer loadings that meet the criteria, with values ranging from 0.780 to 0.895. For the Counselor Competence construct, the outer loading values ranged from 0.806 to 0.895; for the Joyful Learning construct, they ranged from 0.784 to 0.862; for the Academic Resilience construct, they ranged from 0.780 to 0.872; and for the Self-Learning Development construct, they ranged from 0.877 to 0.894. These values indicate that all indicators have a strong relationship with the latent constructs being measured, thus demonstrating convergent validity.

Construct reliability was then tested using the Composite Reliability and Cronbach's Alpha criteria, with a minimum threshold of > 0.70 (Hair et al., 2017). The test results indicate that all constructs exhibit good internal consistency and are reliable in measuring the research variables. Consequently, the measurement model is deemed valid and reliable, making it suitable for structural equation modeling and further hypothesis testing.

Table 2. Construct Validity and Reliability

Construct	Measurement Item	Indicator	Mean	Loading	Convergent validity		
					AVE	CR	Alfa
Joyful Learning	GJL1	Motivation to learn	0.784	0.781	0.692	0.857	0.852
	GJL2	Active Participation	0.859	0.859			
	GJL3	Adaptive Challenges	0.820	0.819			
	GJL4	Enjoyable Atmosphere	0.862	0.862			
Counselor Competencies	KK2	Group Support	0.895	0.894	0.733	0.827	0.818
	KK3	Problem-Solving & Learning Strategies	0.866	0.866			
	KK4	The Benefits of Group Discussions	0.806	0.803			
Academic Resilience	RA1	Academic Resilience	0.780	0.777	0.711	0.869	0.864
	RA2	Learning Adaptation	0.855	0.855			
	RA3	Seeking Help	0.863	0.862			
	RA4	Emotional Regulation	0.872	0.871			
Self Learning Development	SLD1	Understanding Instructions	0.877	0.876	0.783	0.862	0.861
	SLD2	Task Completion	0.884	0.883			
	SLD3	Study Concentration	0.894	0.893			

The results of the measurement model testing indicate that all constructs used in this study have excellent data quality, making them suitable for further structural analysis. The factor loadings for all indicators range from 0.777 to 0.894, indicating a strong relationship between the indicators and the latent constructs being measured. Furthermore, the AVE values for all variables exceeded the minimum threshold of 0.50, indicating that each construct explains more than 50% of the variance in its respective indicators. In terms of reliability, the Composite Reliability and Cronbach's Alpha values, all of which were above 0.80, demonstrate a very high level of internal consistency. These findings confirm that the constructs of Joyful Learning, Counselor Competence, Academic Resilience, and Self-Learning Development have met the standards for convergent validity and reliability recommended in SEM-PLS-based research. (Hair et al., 2021; Henseler et al., 2015). These results also reinforce the findings of previous research indicating that instruments measuring self-regulation, self-efficacy, and academic resilience tend to yield stable and reliable measurement structures when their indicators represent authentic and meaningful learning experiences (Martin & Marsh, 2006; Schunk, D. H., & DiBenedetto, 2020). Therefore, the measurement model used in this study is capable of representing the psychological constructs under investigation and minimizing measurement error, so that the results of the analysis of the relationships between variables in the structural model can be interpreted with a high degree of confidence.

Table 3. Discriminant Validity of Constructs

Heterotrait-monotrait ratio (HTMT)	**Joyful Learning**	**Counselor Competencies**	**Academic Resilience**	**Self Learning Development**
Joyful Learning				
Counselor Competencies	1.144			
Academic Resilience	1.132	1.132		
Self Learning Development	1.100	1.086	1.088	
Fornell-Larcker criterion				
Joyful Learning	0.832			
Counselor Competencies	0.951	0.856		
Academic Resilience	0.969	0.948	0.843	
Self Learning Development	0.947	0.919	0.943	0.885

Based on the results of the discriminant validity test in Table 3, this research instrument demonstrates significant empirical support under both the Heterotrait-Monotrait Ratio (HTMT) approach and the Fornell-Larcker criteria. The HTMT analysis revealed that all inter-construct correlation values were above both the conservative threshold of 0.85 and the lenient threshold of 0.90 (range of values from 1.086 to 1.144), indicating the presence of strong multicollinearity or overlapping contexts among variables (Henseler et al., 2015). This inconsistency is further highlighted by the results of the Fornell-Larcker criterion test, where the square root of the Average Variance Extracted (AVE) on the main diagonal for the Joyful Learning construct (0.832), Counselor Competence (0.856), and Academic Resilience (0.843) were found to be smaller than the latent correlations beneath them (e.g., the correlation between Joyful Learning and Counselor Competence was 0.951), thus failing to meet the assumption that a construct must share more variance with its own indicators than with other constructs in the model (Fornell & Larcker, 1981). These findings regarding inter-construct correlations are consistent with the limitations of previous research, which indicates that in the field of educational psychology, affective constructs and interpersonal competence often exhibit a very strong theoretical connection (high conceptual overlap), thereby necessitating instrument reconstruction, dimension merging, or the

application of higher-order construct analysis to more accurately account for the unique variance of each variable (Martin & Marsh, 2006; Roysircar & Hodges, 2013),.

Table 4. Structural Model Evaluation

Hipotesis	Jalur (Path)	Koefisien (β)	t-statistic	p-value	Decision	Confidence Interval
H1	GJL -> RA	0.706	6.604	0.000	strong influence	0.935
H2	GJL -> SLD	0.503	2.210	0.027	strong influence	1.014
H3	KK -> RA	0.277	2.542	0.011	strong influence	0.468
H4	KK -> SLD	0.091	0.797	0.426	weak influence	0.275
H5	RA -> SLD	0.369	1.630	0.103	weak influence	0.913

Note: Counselor Competencies (KK), Joyful Learning (GJL), Academic Resilience (RA), dan Self Learning Development (SLD).

The results of the structural equation modeling analysis indicate that three of the five hypotheses developed received empirical support, while the other two hypotheses did not show statistical significance. Joyful Learning (GJL) was found to have a strong positive influence on Academic Resilience (AR) ($\beta = 0.706$; $t = 6.604$; $p < 0.001$), indicating that the higher the implementation of joyful learning, the better students' ability to adapt and persevere in the face of academic challenges. This finding aligns with research showing that positive, participatory, and enjoyable learning experiences can enhance student engagement and strengthen academic resilience through increased intrinsic motivation and self-regulation (Fredrickson, 2001; Seligman, 2011). In addition, Joyful Learning also had a significant effect on Self-Learning Development (SLD) ($\beta = 0.503$; $t = 2.210$; $p = 0.027$), indicating that a learning environment that provides positive experiences encourages students to develop independent learning, reflective skills, and initiative in managing their learning process (Garrison, 1997).

Counselor Competence (CC) was found to have a positive and significant effect on Academic Resilience ($\beta = 0.277$; $t = 2.542$; $p = 0.011$), indicating that counselors' professional, pedagogical, and interpersonal competencies play a role in strengthening students' ability to cope with academic stress. This finding is consistent with research results confirming that the quality of counseling services and counselor competencies contribute to improvements in students' psychological well-being, adaptive abilities, and academic resilience(Harley & Stansbury, 2011; Lent & Brown, 2013). However, Counselor Competence did not show a significant influence on Self-Directed Learning Development ($\beta = 0.091$; $t = 0.797$; $p = 0.426$), indicating that the development of self-directed learning is more influenced by students' internal factors and their learning experiences than by counselor competence alone. Similar results were also observed in the relationship between Academic Resilience and Self-Directed Learning Development, which was not significant ($\beta = 0.369$; $t = 1.630$; $p = 0.103$). These findings differ from several previous studies that reported a positive relationship between resilience and self-directed learning ability (Cassidy, 2016; Martin & Marsh, 2006). These findings suggest that, in the context of this study, academic resilience has not yet become a factor that directly drives the development of self-directed learning; therefore, there may be other variables, such as intrinsic motivation, self-efficacy, or learning environment support, that mediate this relationship. Overall, the results of this study confirm that Joyful Learning is the primary determinant capable of enhancing Academic Resilience and Self-Learning Development, while the contribution of Counselor Competence is more specifically focused on strengthening Academic Resilience.

Discussion

The results of the study indicate that the structural model developed has excellent predictive power, as evidenced by a coefficient of determination (R^2) of 0.947 for Academic Resilience and 0.908 for Self-Learning Development. These findings indicate that the combination of Counselor Competence and Joyful Learning accounts for most of the variation in Academic Resilience, while Counselor Competence, Joyful Learning, and Academic Resilience together account for a substantial portion of the variation in Self-Learning Development. Hypothesis testing revealed that H1, H2, and H4 received empirical support, whereas H3 and H5 were not supported by the data. Among all the relationships tested, Joyful Learning was the most dominant predictor of Academic Resilience ($\beta = 0.706$; $p < 0.001$) and Self-Learning Development ($\beta = 0.503$; $p = 0.027$). These findings indicate that enjoyable, participatory, and meaningful learning experiences can enhance students' ability to manage academic stress while fostering the development of self-directed learning. These results align with the broaden-and-build theory proposed (Fredrickson, 2001), which explains that positive emotions broaden an individual's mindset, thereby enhancing their capacity for adaptation and self-development. In addition, research (Seligman, 2011) also confirms that a learning environment that provides meaningful experiences contributes positively to increased student engagement, intrinsic motivation, and psychological resilience. These findings further reinforce the research (Garrison, 1997) which states that a learning environment that provides opportunities for exploration, reflection, and meaningful learning experiences is the cornerstone of fostering self-directed learning and lifelong learning.

The counselor's competencies were found to have a positive and significant effect on academic resilience ($\beta = 0.277$; $p = 0.011$), thereby supporting H1 and indicating that the counselor's professional, pedagogical, social, and interpersonal competencies play a role in helping students develop the ability to adapt to various academic challenges. These results are consistent with previous research (Hartley, 2011; Lent & Brown, 2013), which found that the quality of counseling services contributes to improved psychological well-being and academic resilience through the enhancement of self-efficacy, social support, and adaptive coping strategies. However, counselor competence did not have a significant effect on the development of self-directed learning ($\beta = 0.091$; $p = 0.426$), so H3 did not receive empirical support. Similarly, although the effect of Academic Resilience on Self-Learning Development was positive, it did not reach statistical significance ($\beta = 0.369$; $p = 0.103$), so H5 was also not supported. These results indicate that the development of self-directed learning is not solely determined by the ability to cope with academic pressure or the quality of counseling services, but is more influenced by learning experiences that directly encourage students' active participation, self-reflection, and learning regulation. These findings differ from those of Martin and Marsh (2006) and Cassidy (2016), who reported a positive relationship between academic resilience and self-directed learning. This discrepancy suggests the possible role of other mediating or moderating factors, such as intrinsic motivation, self-efficacy, engagement in learning, or support from the learning environment, which have not been accounted for in this study's model. Therefore, this study makes a theoretical contribution by affirming that Joyful Learning is the primary determinant in building Academic Resilience and Self-Learning Development, whereas Counselor Competence functions more as a supporting factor that strengthens students' academic adaptability rather than as a direct driver of development

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CONCLUSIONS AND SUGGESTION

This study demonstrates that the SEM-PLS model developed possesses excellent explanatory power in elucidating the

relationships among Counselor Competence, Joyful Learning, Academic Resilience, and Self-Learning Development. The test results indicate that Joyful Learning is the most dominant factor in enhancing Academic Resilience and Self-Learning Development, while Counselor Competence contributes significantly to the improvement of Academic Resilience but does not yet exert a significant direct influence on Self-Learning Development. Furthermore, Academic Resilience exhibits a positive but non-significant influence on Self-Learning Development, indicating that the development of students' self-directed learning is not solely determined by their ability to withstand academic challenges but is also influenced by enjoyable, meaningful learning experiences that encourage active participation. Overall, these findings confirm that an integrated Joyful Learning approach supported by counselor competencies can be an effective strategy for strengthening students' academic resilience and developing their self-directed learning capacity in educational settings**.**

Based on the research findings, educational institutions and guidance and counseling teachers are advised to integrate the principles of Joyful Learning into both instructional and counseling services through interactive, collaborative, reflective, and student-centered activities in order to continuously enhance Academic Resilience and Self-Learning Development. Efforts to enhance counselors' competencies should also focus on developing skills in facilitating self-directed learning, so that they not only strengthen academic resilience but also foster students' independence. For future researchers, it is recommended to develop a model incorporating mediating or moderating variables such as self-efficacy, intrinsic motivation, learning engagement, or social support, and to test the model across a wider range of educational levels and respondent characteristics to gain a more comprehensive understanding of the factors influencing the development of self-directed learning.

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