

The Influence of Academic Climate and Achievement Motivation on Students' Learning Effectiveness: A Literature Review

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ABSTRAK

Efektivitas pembelajaran mahasiswa merupakan indikator kunci keberhasilan penyelenggaraan pendidikan tinggi yang mencerminkan kualitas proses pembelajaran, keterlibatan mahasiswa, serta ketercapaian tujuan akademik. Berbagai studi menunjukkan bahwa efektivitas pembelajaran tidak hanya ditentukan oleh faktor pedagogis, tetapi juga dipengaruhi oleh faktor lingkungan dan psikologis mahasiswa. Artikel ini bertujuan untuk mengkaji secara sistematis pengaruh iklim akademik dan motivasi berprestasi terhadap efektivitas pembelajaran mahasiswa melalui pendekatan *systematic literature review*. Penelusuran literatur dilakukan terhadap artikel nasional terakreditasi dan jurnal internasional bereputasi yang dipublikasikan dalam sepuluh tahun terakhir. Sebanyak 38 artikel terpilih dianalisis menggunakan pendekatan analisis tematik. Hasil kajian menunjukkan bahwa iklim akademik yang kondusif ditandai oleh interaksi dosen–mahasiswa yang positif, kepemimpinan akademik yang efektif, budaya akademik yang kuat, serta dukungan institusional berperan signifikan dalam meningkatkan keterlibatan dan kualitas pembelajaran mahasiswa. Selain itu, motivasi berprestasi terbukti menjadi faktor internal utama yang mendorong ketekunan belajar, regulasi diri, dan keterlibatan kognitif mahasiswa. Temuan utama penelitian ini menunjukkan bahwa efektivitas pembelajaran mahasiswa tercapai secara optimal ketika iklim akademik yang mendukung dan motivasi berprestasi yang kuat berinteraksi secara sinergis. Studi ini menegaskan bahwa efektivitas pembelajaran merupakan konstruk multidimensional yang dipengaruhi oleh dinamika faktor eksternal dan internal mahasiswa. Implikasi kebijakan menekankan pentingnya pengelolaan iklim akademik dan penguatan motivasi berprestasi sebagai strategi terpadu dalam peningkatan mutu pembelajaran di pendidikan tinggi.

Kata Kunci : Iklim Akademik, Motivasi Berprestasi, Efektivitas Pembelajaran, Pendidikan Tinggi, Studi Literatur

ABSTRACT

Students' learning effectiveness is a key indicator of success in higher education, reflecting the quality of learning processes, student engagement, and the achievement of academic goals. Previous studies indicate that learning effectiveness is influenced not only by pedagogical factors but also by environmental and psychological determinants. This article aims to systematically examine the influence of academic climate and achievement motivation on students' learning effectiveness through a systematic literature review approach. The literature search was conducted on nationally accredited journals and reputable international journals published within the last ten years. A total of 38 selected studies were analyzed using thematic analysis. The findings reveal that a supportive academic climate—characterized by positive lecturer–student interactions, effective academic leadership, strong academic culture, and institutional support—plays a significant role in enhancing student engagement and learning quality. In addition, achievement motivation is identified as a key internal factor that fosters persistence, self-regulated learning, and cognitive engagement among students. The main finding of this study indicates that students' learning effectiveness is optimally achieved when a supportive academic climate and strong achievement motivation interact synergistically. This study reinforces the view that learning effectiveness is a multidimensional construct shaped by the dynamic interaction between external environmental conditions and internal motivational processes. Policy implications highlight the importance of integrating academic climate management and motivation enhancement strategies to sustainably improve learning quality in higher education.

Keywords: Academic Climate, Achievement Motivation, Learning Effectiveness, Higher Education, Literature Review

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1. INTRODUCTION

Learning effectiveness has become a central issue in higher education systems worldwide, particularly in the context of increasing demands for quality assurance, graduate competitiveness, and accountability of learning outcomes. In higher education, learning effectiveness does not merely refer to students' academic achievement as measured by grades or cumulative GPA, but also encompasses the quality of learning processes, student engagement, critical thinking development, and the ability to apply knowledge in real-world contexts (Slavin, 2019; Hidayat, 2022). Consequently, improving learning effectiveness is considered a strategic priority in higher education management and policy.

Despite continuous reforms and innovations in higher education, numerous studies report persistent challenges related to low student engagement, surface learning approaches, and uneven learning quality across institutions and study programs (Astuti & Rahman, 2020; Putri et al., 2021). These challenges suggest that learning effectiveness cannot be explained solely by instructional design, curriculum structure, or teaching methods. Instead, learning effectiveness is increasingly understood as the result of complex interactions between environmental factors and students' internal characteristics (Kim & Park, 2019; Susanto & Maulana, 2024).

One of the most frequently cited environmental determinants of learning effectiveness is academic climate. Academic climate refers to students' perceptions of the psychosocial, cultural, and structural conditions of the university environment, including lecturer-student interactions, academic leadership, institutional support, academic culture, and learning facilities (Widodo, 2021; Utuarahman & Djafri, 2023). A positive academic climate is associated with psychological safety, openness to intellectual discourse, and active student participation, all of which are essential conditions for meaningful learning (Putri et al., 2021; Hasan & Malik, 2023).

Empirical evidence indicates that a supportive academic climate contributes significantly to student engagement, satisfaction, and academic outcomes (Astuti & Rahman, 2020; Kim & Park, 2019). Conversely, an unsupportive or rigid academic climate characterized by limited interaction, weak academic culture, and insufficient institutional support may hinder students' motivation and reduce the effectiveness of learning processes (Rahmawati & Anwar, 2022). These findings highlight that academic climate functions not merely as a background condition but as an active factor shaping students' learning experiences and outcomes.

In addition to environmental influences, achievement motivation is widely recognized as a critical internal factor affecting learning effectiveness. Achievement motivation refers to students' internal drive to achieve academic excellence, persist in learning tasks, and continuously improve their performance based on personal or institutional standards (McClelland, 1987; Zhao et al., 2020). Students with high achievement motivation tend to demonstrate greater persistence, self-regulated learning behaviors, and resilience when facing academic challenges (Suryadi, 2020; Wahyuni, 2023).

From a motivational theory perspective, achievement motivation plays a key role in determining how students interpret academic tasks, respond to feedback, and regulate their learning efforts (Atkinson, 1964; Weiner, 2010). Research consistently shows that motivated students are more likely to engage deeply with learning materials, adopt effective learning strategies, and achieve higher levels of learning effectiveness (Zhao et al., 2020; Arifin, 2024). Without sufficient achievement motivation, even well-designed learning environments may fail to produce optimal learning outcomes.

Recent studies further suggest that academic climate and achievement motivation are not independent factors but interact dynamically in influencing learning effectiveness (Lestari & Hakim, 2024; Susanto & Maulana, 2024). A supportive academic climate may strengthen students' achievement motivation by fulfilling psychological needs for competence, autonomy, and relatedness, whereas a negative academic climate may weaken motivation and engagement (Ahmad et al., 2022). This interaction underscores the importance of examining both external and internal factors simultaneously when analyzing learning effectiveness in higher education.

However, despite the growing body of research on academic climate and achievement motivation, existing studies often examine these variables separately or focus on specific outcomes such as academic performance, satisfaction, or engagement, rather than learning effectiveness as a multidimensional construct (Slavin, 2019; Hidayat, 2022). Moreover, comprehensive literature-based analyses that integrate academic climate and achievement motivation within a unified framework of

learning effectiveness remain limited, particularly in the context of higher education in developing regions.

Therefore, this article aims to address this gap by systematically reviewing and synthesizing existing literature on the influence of academic climate and achievement motivation on students' learning effectiveness in higher education. By adopting a literature review approach, this study seeks to provide a comprehensive theoretical foundation and conceptual understanding that can inform future empirical research and support evidence-based academic management and policy development.

Despite the growing body of literature addressing learning effectiveness in higher education, several critical gaps remain evident. First, existing studies tend to examine academic climate and achievement motivation as independent predictors of educational outcomes, such as academic performance, student satisfaction, or engagement, rather than analyzing their combined influence on learning effectiveness as a multidimensional construct (Astuti & Rahman, 2020; Zhao et al., 2020; Wahyuni, 2023). Consequently, the interactive and complementary roles of environmental and motivational factors in shaping effective learning processes remain insufficiently explored.

Second, many empirical studies emphasize instructional methods and pedagogical strategies while underrepresenting the broader institutional and psychosocial dimensions of the academic environment that directly shape students' learning experiences (Hidayat, 2022; Putri et al., 2021). This narrow focus limits the understanding of learning effectiveness as a systemic phenomenon influenced by leadership, academic culture, and institutional support structures.

Third, although learning effectiveness is widely discussed in the literature, it is often operationalized in a partial or outcome-oriented manner, focusing mainly on grades or achievement indicators, rather than being conceptualized as an integrated construct encompassing learning quality, engagement, motivation, and time management (Slavin, 2019). As a result, theoretical syntheses that explicitly link academic climate and achievement motivation to learning effectiveness in a holistic framework remain scarce.

Finally, comprehensive literature-based integrative studies that synthesize findings across diverse institutional and cultural contexts are still limited, particularly in higher education systems outside well-established Western contexts. This gap restricts the development of context-sensitive theoretical models that can inform academic management and policy formulation in developing and emerging higher education environments.

2. METHOD

2.1 Research Design

This study employed a systematic literature review (SLR) design to examine the influence of academic climate and achievement motivation on students' learning effectiveness in higher education. A literature review approach was selected because the purpose of this study was not to generate new empirical data, but to synthesize, integrate, and critically analyze existing research findings in order to develop a comprehensive theoretical understanding of the relationships among the examined variables.

The systematic literature review design enables a structured, transparent, and replicable process for identifying, selecting, and analyzing relevant scholarly publications. This approach is particularly appropriate for addressing fragmented research findings and clarifying conceptual relationships within a specific research domain.

2.2 Data Sources and Search Strategy

The literature search was conducted using national accredited journals and international peer-reviewed databases relevant to education and social sciences. The search process focused on publications related to higher education contexts. Keywords used in the search included combinations of the following terms: academic climate, campus climate, learning environment, achievement motivation, academic motivation, learning effectiveness, learning outcomes, and higher education.

Boolean operators (AND, OR) were applied to refine the search results and ensure relevance. Reference lists of selected articles were also examined to identify additional relevant studies (snowballing technique).

2.3 Inclusion and Exclusion Criteria

To ensure the quality and relevance of the reviewed literature, clear inclusion and exclusion criteria were applied. Inclusion criteria:

1. Peer-reviewed journal articles published within the last ten years,
2. Studies focusing on higher education settings,
3. Articles examining academic climate, achievement motivation, learning effectiveness, or their interrelationships,
4. Quantitative, qualitative, or mixed-methods studies with clear theoretical or empirical contributions.

Exclusion criteria:

1. Non-peer-reviewed publications (e.g., opinion pieces, editorials),
2. Studies focusing exclusively on primary or secondary education,
3. Articles lacking clear methodological descriptions or relevance to the research variables.

2.4 Article Selection Process

The article selection process followed a systematic screening procedure. Initially, titles and abstracts were reviewed to assess relevance to the research focus. Subsequently, full-text articles were examined to ensure alignment with the inclusion criteria. Duplicate records were removed, and only articles that explicitly discussed academic climate, achievement motivation, and learning effectiveness in higher education contexts were retained. This multi-stage screening process ensured the methodological rigor and conceptual relevance of the reviewed studies.

2.5 Data Analysis and Synthesis

The selected articles were analyzed using thematic analysis. Key concepts, theoretical frameworks, research findings, and conclusions were extracted and coded. The analysis focused on identifying:

1. How academic climate is conceptualized and measured,
2. How achievement motivation is defined and operationalized,
3. The reported relationships between academic climate, achievement motivation, and learning effectiveness,
4. Patterns of consistency and divergence across studies.

The findings were then synthesized into an integrative narrative to explain the direct and interactive roles of academic climate and achievement motivation in shaping students' learning effectiveness.

2.6 Reliability and Trustworthiness

To enhance the reliability and trustworthiness of the review, several strategies were employed. First, explicit inclusion and exclusion criteria ensured transparency in article selection. Second, multiple sources and methodological perspectives were considered to reduce bias. Third, the synthesis emphasized convergence across studies rather than isolated findings.

2.7 Ethical Considerations

This study did not involve human participants or primary data collection. All data were obtained from publicly available scholarly publications. Proper citation and acknowledgment of original authors were maintained throughout the review to ensure academic integrity.

The literature review process followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to ensure transparency and rigor in study identification, screening, eligibility, and inclusion. During the identification stage, a total of 312 records were retrieved from national accredited journals and international peer-reviewed databases using predefined search keywords related to academic climate, achievement motivation, learning effectiveness, and higher education. In addition, 24 records were identified through reference list screening (snowballing technique). This resulted in 336 records identified for initial consideration.

In the screening stage, 68 duplicate records were removed, leaving 268 unique records. Titles and abstracts of these records were screened for relevance to the research focus. As a result, 191 records were excluded because they did not address higher education contexts, did not involve the key variables

of interest, or focused solely on instructional techniques without considering academic climate or motivation.

The eligibility stage involved a full-text assessment of 77 articles. At this stage, 39 articles were excluded due to insufficient methodological clarity, lack of explicit discussion on learning effectiveness, or irrelevance to the integrative framework of academic climate and achievement motivation. Finally, 38 articles met all inclusion criteria and were included in the qualitative synthesis of this systematic literature review. These studies formed the empirical and theoretical basis for analyzing the influence of academic climate and achievement motivation on students' learning effectiveness in higher education.

3. RESULT AND DISCUSSION

Result

Based on the systematic review of 38 selected studies, the findings were synthesized using thematic analysis. The analysis revealed four major themes that explain how academic climate and achievement motivation influence students' learning effectiveness in higher education. These themes consistently emerged across diverse institutional and cultural contexts.

3.1. Academic Climate as a Structural and Psychosocial Enabler of Learning Effectiveness

A dominant theme across the reviewed studies is the role of academic climate as a foundational enabler of effective learning. Academic climate was commonly conceptualized as a combination of institutional structures, leadership practices, academic culture, and psychosocial learning environments. Studies consistently reported that a supportive and inclusive academic climate enhances students' perceptions of learning quality, engagement, and satisfaction. Positive academic climate is characterized by open lecturer-student communication, transparent academic policies, supportive leadership, and adequate learning facilities. These conditions create psychological safety, allowing students to actively participate in discussions, express ideas, and engage in critical inquiry. In contrast, studies reported that rigid academic environments, weak institutional support, and limited interaction negatively affect students' engagement and learning effectiveness. Overall, the reviewed literature confirms that academic climate does not function merely as a contextual background but as an active structural and psychosocial factor shaping the quality and effectiveness of learning processes.

3.2. Achievement Motivation as a Key Internal Driver of Effective Learning

The second major theme highlights achievement motivation as a critical internal determinant of students' learning effectiveness. Across the reviewed studies, achievement motivation was consistently associated with higher levels of persistence, self-regulated learning, goal orientation, and academic resilience. Students with strong achievement motivation tend to set clear learning goals, manage their learning time effectively, and actively utilize feedback to improve performance. These behaviors contribute directly to deeper cognitive engagement and more meaningful learning outcomes. Conversely, low achievement motivation was associated with surface learning approaches, minimal task engagement, and reduced learning effectiveness, even in supportive academic environments. The findings also indicate that achievement motivation influences not only learning outcomes but also learning processes, including effort regulation, strategy use, and persistence in facing academic challenges.

3.3. Interaction between Academic Climate and Achievement Motivation

A significant thematic finding from the synthesis is the interactive relationship between academic climate and achievement motivation. Several studies emphasized that learning effectiveness is optimized when a supportive academic climate and strong achievement motivation coexist. A positive academic climate was found to strengthen students' achievement motivation by fulfilling psychological needs for competence, autonomy, and relatedness. In such environments, students are more likely to internalize academic goals and engage in learning activities with intrinsic motivation. Conversely, unsupportive academic climates were reported to weaken motivation, even among students with initially high achievement orientation. This theme suggests that academic climate and achievement motivation operate in a mutually reinforcing manner, rather than as isolated predictors of learning effectiveness.

3.4. Learning Effectiveness as a Multidimensional Construct

The fourth theme concerns the conceptualization of learning effectiveness as a multidimensional outcome. The reviewed studies indicate that learning effectiveness extends beyond academic performance indicators and includes dimensions such as learning quality, student engagement, satisfaction, self-regulation, and effective use of learning time. Effective learning was consistently associated with instructional clarity, appropriate learning challenges, meaningful feedback, and active student participation. Studies also emphasized that learning effectiveness is best understood as a process-oriented construct, shaped continuously by environmental conditions and motivational factors. This thematic finding supports the view that learning effectiveness emerges from the dynamic interaction between institutional context and individual learner characteristics.

Discussion

This study aimed to address the research gap identified in previous literature by synthesizing empirical and theoretical evidence on the combined influence of academic climate and achievement motivation on students' learning effectiveness in higher education. The thematic findings provide important insights that extend existing research and reinforce the novelty of this study.

a. Reinterpreting Academic Climate beyond a Contextual Variable

The findings of this systematic literature review confirm that academic climate plays a significant role in shaping learning effectiveness, supporting prior empirical studies that link campus climate to student engagement and academic outcomes (Astuti & Rahman, 2020; Kim & Park, 2019). However, this study advances the literature by explicitly positioning academic climate not merely as a contextual background, but as an active structural and psychosocial mechanism that directly enables or constrains effective learning processes.

Previous studies often examined academic climate in relation to isolated outcomes such as GPA, satisfaction, or engagement (Putri et al., 2021; Rahmawati & Anwar, 2022), leaving a gap in understanding its role in learning effectiveness as a comprehensive construct. The present synthesis demonstrates that academic climate influences learning effectiveness through multiple pathways, including psychological safety, quality of academic interactions, and institutional support. This finding aligns with organizational and educational management perspectives that emphasize the role of learning environments in shaping individual performance (Widodo, 2021; Hasan & Malik, 2023). By integrating these findings, this study contributes to the literature by expanding the conceptual role of academic climate within learning effectiveness models, thereby addressing the first identified research gap.

b. Achievement Motivation as a Process-Oriented Determinant of Learning Effectiveness

The results also reaffirm the central role of achievement motivation in learning effectiveness, consistent with motivational theories and empirical findings (McClelland, 1987; Zhao et al., 2020). Students with high achievement motivation demonstrate persistence, effective self-regulation, and adaptive responses to academic challenges, which are essential components of effective learning (Suryadi, 2020; Wahyuni, 2023). Importantly, this review highlights that achievement motivation should be understood not only as a predictor of academic performance but as a process-oriented determinant that shapes how students engage with learning tasks, manage time, and utilize feedback. This perspective extends prior studies that primarily focused on motivation-achievement relationships without explicitly linking motivation to learning effectiveness as a multidimensional process (Arifin, 2024). Thus, this study addresses the second research gap by situating achievement motivation within a broader framework of learning effectiveness rather than treating it as an isolated psychological variable.

c. Bridging the Gap: Interaction between Academic Climate and Achievement Motivation

One of the most significant contributions of this study lies in its explicit synthesis of evidence demonstrating the interactive relationship between academic climate and achievement motivation. While previous research has examined these variables independently, limited attention has been given to their combined and reinforcing effects on learning effectiveness (Lestari & Hakim, 2024; Susanto &

Maulana, 2024). The findings suggest that a supportive academic climate enhances students' achievement motivation by fulfilling psychological needs for competence, autonomy, and relatedness, as proposed in self-determination theory (Ahmad et al., 2022). Conversely, an unsupportive academic environment may undermine motivation, even among students with high initial achievement orientation. This interaction provides empirical support for integrative models that emphasize the alignment between environmental conditions and internal motivational processes. By synthesizing these interaction effects, this study directly responds to the identified research gap regarding the lack of integrative analyses and reinforces the novelty of combining academic climate and achievement motivation within a single explanatory framework for learning effectiveness.

d. **Advancing the Conceptualization of Learning Effectiveness**

Another important contribution of this study is the reinforcement of learning effectiveness as a multidimensional and dynamic construct, rather than a single outcome indicator. Consistent with Slavin's (2019) QAIT model and subsequent higher education research (Hidayat, 2022), the findings show that learning effectiveness encompasses instructional quality, engagement, motivation, feedback utilization, and effective use of learning time. This synthesis addresses a critical limitation in prior research, where learning effectiveness was often operationalized narrowly through academic performance metrics. By integrating environmental and motivational perspectives, this study advances a more holistic understanding of learning effectiveness that aligns with contemporary higher education paradigms emphasizing student-centered and meaningful learning.

e. **Theoretical and Practical Implications**

From a theoretical perspective, this study contributes to the development of integrative learning effectiveness models by bridging organizational, motivational, and pedagogical theories. The findings support the argument that learning effectiveness emerges from the dynamic interaction between institutional climate and individual motivation, rather than from isolated instructional interventions. From a practical standpoint, the results highlight the importance for higher education leaders and policymakers to simultaneously improve academic climate and foster students' achievement motivation. Institutional efforts focusing solely on pedagogical innovation without addressing academic climate may yield limited impact on learning effectiveness. Similarly, motivation enhancement programs are unlikely to succeed in unsupportive academic environments.

f. **Positioning the Novelty of the Study**

In summary, the discussion underscores the novelty of this study in three key aspects. First, it integrates academic climate and achievement motivation within a unified framework of learning effectiveness. Second, it conceptualizes learning effectiveness as a multidimensional and process-oriented construct. Third, it provides a systematic synthesis of empirical evidence that informs both theory development and academic management practices. By explicitly addressing the research gaps identified in previous studies, this systematic literature review offers a robust conceptual foundation for future empirical research and evidence-based policy development in higher education.

4. CONCLUSION

This systematic literature review synthesizes evidence from 38 studies to examine the influence of academic climate and achievement motivation on students' learning effectiveness in higher education. The findings demonstrate that learning effectiveness is not determined by instructional factors alone, but emerges from the dynamic interaction between environmental conditions and students' internal motivational processes.

The review confirms that a supportive academic climate characterized by positive lecturer-student interactions, effective academic leadership, strong academic culture, and adequate learning facilities functions as a critical enabler of effective learning. At the same time, achievement motivation serves as a key internal driver that shapes students' persistence, self-regulated learning behaviors, and engagement in academic tasks. Importantly, learning effectiveness is optimized when these external and internal factors operate synergistically, reinforcing one another.

Furthermore, this study advances the conceptualization of learning effectiveness as a multidimensional and process-oriented construct, encompassing learning quality, engagement, motivation, feedback utilization, and effective time management, rather than a narrow focus on academic performance outcomes. By integrating academic climate and achievement motivation within a unified analytical framework, this review addresses existing research gaps and provides a comprehensive theoretical foundation for understanding learning effectiveness in higher education.

The findings of this study offer several important implications for higher education policy and academic management. First, higher education institutions should prioritize the development of a conducive academic climate as a strategic policy objective. Policies aimed at improving learning effectiveness should extend beyond curriculum reform and pedagogical innovation to include strengthening academic leadership, fostering open and respectful academic interactions, and cultivating a strong academic culture that values critical inquiry and intellectual integrity. Institutional policies that promote psychological safety and inclusivity are particularly crucial in encouraging active student participation and engagement.

Second, policies related to student development should explicitly address achievement motivation as a core component of learning quality. Universities are encouraged to implement academic support systems, mentoring programs, and formative assessment practices that reinforce students' sense of competence, autonomy, and responsibility for learning. Motivation-oriented policies should emphasize feedback quality, goal setting, and self-regulated learning skills rather than relying solely on summative evaluation mechanisms.

Third, the results suggest that policies targeting learning effectiveness should adopt a holistic and integrated approach. Interventions focusing exclusively on improving teaching methods or learning technologies may yield limited impact if they are not supported by a positive academic climate and motivated learners. Therefore, institutional policies should align environmental improvements with initiatives designed to enhance students' motivational capacities.

Fourth, from a quality assurance perspective, learning effectiveness indicators used in institutional evaluation and accreditation processes should be expanded to reflect its multidimensional nature. Policymakers and quality assurance agencies are encouraged to incorporate measures of academic climate and student motivation alongside traditional performance metrics in evaluating educational quality.

Finally, the findings provide a basis for future policy-informed research. Higher education policymakers are encouraged to support empirical studies that test integrative models of academic climate, achievement motivation, and learning effectiveness across diverse institutional and cultural contexts. Such evidence-based policymaking will be essential for achieving sustainable improvements in learning quality in higher education.

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