

Research Article

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Designing for Engagement: The Motivational Impact of Aesthetic Learning Spaces in Vietnamese EFL Classrooms

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Abstract

Background/purpose. This study investigates the educational influence of artistically enriched learning environments on the motivation of Vietnamese undergraduate students enrolled in Business English programs. While prior research has increasingly acknowledged the role of physical space in shaping learning outcomes, few studies have critically examined the psychological and motivational impact of aesthetic classroom design, particularly in Southeast Asian higher education contexts. Grounded in Self-Determination Theory, Flow Theory, and Place Identity Theory, the research addresses how artistic spaces affect students' intrinsic, extrinsic, and emotional dimensions of learning motivation.

Materials/methods. A mixed-methods design was employed, integrating quantitative survey data with qualitative responses from open-ended questions. The survey, adapted from validated instruments and refined to fit the aesthetic context of the University of Economics Ho Chi Minh City (UEH), was completed by 558 Business English students. Quantitative data were analyzed using SPSS for descriptive statistics, reliability (Cronbach's alpha), exploratory factor analysis (EFA), t-tests, correlations, and regression analyses. Thematic content analysis was used to interpret students' open-ended reflections on their learning environments.

Results. The findings reveal a strong positive correlation between students' perceptions of artistic learning spaces and their motivational outcomes. Aesthetic features such as harmonious lighting, green spaces, student-curated art, and flexible furniture significantly predicted levels of intrinsic motivation and emotional engagement. Gender differences were also evident, with female students reporting higher emotional responsiveness. Qualitative data supported these results, with students describing enhanced concentration, identity formation, and academic pride linked to aesthetic environments.

Conclusion. Artistically enriched educational spaces hold substantial promise for motivating EFL learners by satisfying psychological needs, fostering immersion, and enhancing emotional engagement. This study affirms the value of integrating artistic elements into spatial and pedagogical design. Nevertheless, strategic institutional investment, student co-design, and educator training are essential to optimize such environments for learning effectiveness, well-being, and inclusion.



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1. Introduction and Background

In contemporary higher education, there is an increasing recognition of the critical role physical environments play in shaping students' cognitive, emotional, and motivational outcomes. Traditional educational spaces, historically characterized by rigid arrangements and limited sensory stimulation, have gradually been reconsidered as pedagogically insufficient in meeting the diverse psychological and emotional needs of modern learners. Recent educational theories, particularly those grounded in constructivism, humanism, and embodied learning, emphasize the necessity of creating learning environments that actively engage learners' sensory experiences, emotional comfort, and academic motivation. This shift toward aesthetically enriched learning spaces reflects an evolving understanding that educational environments significantly influence students' cognitive engagement, emotional well-being, and academic identity.

Empirical research increasingly supports the proposition that artistic and aesthetic elements within learning spaces - such as flexible furniture arrangements, harmonious color palettes, biophilic elements, natural lighting, and student-generated artwork - positively impact educational outcomes. Studies by Barrett et al. (2015) and McCormick and Willcox (2024) have demonstrated that spatial features, including lighting, furniture flexibility, and visual aesthetics, significantly enhance student performance, attention, and intrinsic motivation. Similarly, Papaioannou et al. (2023) and Aslam et al. (2024) have identified that artistic environments foster deeper emotional receptivity, social connectedness, and cognitive activation among learners. While these findings underscore the educational potential of thoughtfully designed spaces, existing literature predominantly derives from Western contexts, with limited empirical evidence available from Southeast Asian higher education settings. In particular, there is a notable paucity of research examining how aesthetic and artistic enhancements specifically influence motivational dimensions among students studying English as a Foreign Language (EFL), especially within the subfield of English for Specific Purposes (ESP) such as Business English. Although pedagogical studies in EFL contexts have extensively investigated curriculum design, instructional methods, and technological integration, the impact of physical environments on student motivation remains significantly underexplored. This gap is particularly salient in Vietnam, a nation undergoing substantial infrastructural transformation and pedagogical innovation in its higher education sector, yet lacking systematic evaluations of the psychological and motivational impacts of its newly adopted aesthetic spatial initiatives.

The University of Economics Ho Chi Minh City (UEH) provides an exemplary context to investigate this gap, having recently invested substantially in redesigning campus spaces with innovative artistic and ecological features, such as motivational murals, interactive installations, eco-conscious architecture, and student-centered aesthetic designs. However, empirical assessments of these initiatives' impacts on students' motivation, emotional engagement, and institutional affiliation remain limited, necessitating rigorous investigation. Therefore, this study aims to address the identified research gap by systematically exploring how undergraduate Business English students at UEH perceive the artistic elements integrated into their educational spaces, and how these perceptions relate to their intrinsic motivation, extrinsic motivation, and emotional engagement. Moreover, the study seeks to uncover potential gender differences in the perception of aesthetic learning environments and to provide qualitative insights into how artistic designs contribute to enhancing the university's institutional image and educational quality. By situating this research explicitly within a Southeast Asian higher education context, the study enriches the global discourse on spatial aesthetics and pedagogical effectiveness, offering theoretically informed and practically relevant recommendations for educators, administrators, and policymakers seeking to optimize learning environments for diverse student populations. This research is deeply embedded within the contemporary educational landscape, targeting the increasingly critical role of spatial aesthetics in shaping learning outcomes within higher education institutions. Specifically, the research addresses

a clear gap identified in educational psychology and pedagogical theory: the need to empirically validate how physical environments function not merely as passive backdrops but as active mediators of cognitive, emotional, and motivational processes, particularly within non-Western EFL contexts. Thus, through empirically grounded insights, this study bridges the theoretical and practical dimensions of educational space design, contributing significantly to the creation of more effective, inclusive, and psychologically supportive learning environments within higher education.

To achieve these objectives, the study is guided by the following research questions:

- (1) How do Business English students at UEH perceive the artistic elements in their learning environments?
- (2) To what extent do artistic learning environments influence students' intrinsic motivation, extrinsic motivation, and emotional engagement?
- (3) Are there significant differences in perceptions of artistic learning spaces based on gender among Business English students?
- (4) What qualitative insights do students offer regarding the role of artistic design in enhancing UEH's institutional image and educational quality?

By addressing these questions, this research aims to provide a nuanced understanding of the educational significance of aesthetic environments, filling a critical gap in existing literature and offering practical implications for higher education institutions in Vietnam and comparable contexts globally.

2. Literature Review

2.1. The Educational Value of Artistic Environments

The educational value of artistic environments has increasingly been acknowledged in contemporary scholarship, which positions aesthetics not as ancillary to learning but as central to student development across emotional, cognitive, and sociocultural domains. Foundational philosophical perspectives by Tolstoy (1897) and Dewey (1934) assert that art is not merely decorative or expressive but profoundly experiential and communicative. Dewey, in particular, proposed that aesthetic experience lies at the heart of meaningful learning, as it integrates perception, emotion, and action into a unified educational encounter. In the 21st-century context, such theoretical underpinnings are being revitalized to advocate for learning environments that stimulate not only intellect but also affective and creative capacities. Contemporary research substantiates these philosophical assertions with empirical findings. Artistic and aesthetically enriched learning environments have been shown to enhance students' motivation, emotional well-being, and overall academic performance (Papaioannou et al., 2023). Integrating visual art, harmonious color schemes, natural light, and flexible, student-oriented design elements contributes to the development of a positive affective atmosphere, which in turn fosters deeper cognitive engagement (Barrett et al., 2015; Adekunle, 2023). For instance, McCormick and Willcox (2024) emphasized that arts-integrated spaces support higher emotional receptivity and cognitive attention, particularly in emotionally charged or cognitively demanding learning contexts. These studies reinforce the assertion that design elements are not neutral but pedagogically consequential, shaping the quality of students' psychological experiences and learning trajectories. Moreover, aesthetic learning environments have been associated with heightened self-expression and identity formation. This connection is particularly emphasized within Self-Determination Theory (Deci & Ryan, 2000), which posits that intrinsic motivation flourishes when environments fulfill learners' psychological needs for autonomy, competence, and relatedness. Research has found that students situated in aesthetically supportive environments report greater perceived autonomy and creativity, as well as

stronger interpersonal connections fostered by shared engagement with artistic surroundings (Deng et al., 2022; Lewandowska & Węziak-Białowolska, 2023). These findings extend beyond individual benefit, suggesting that well-designed artistic spaces contribute to a cohesive and emotionally intelligent learning community. From a psychological standpoint, aesthetic design elements have also been found to facilitate emotional regulation and reduce academic stress. A study by Zhang et al. (2024) reported that biophilic design features such as plants, natural textures, and organic lighting reduce cortisol levels and promote calmness in university students, thereby improving academic focus and mental health. Similarly, Rönkkö and Aerila (2021) demonstrated that aesthetic education enables students to externalize complex emotions, fostering both self-awareness and empathy. Such evidence supports the broader argument that artistic environments serve therapeutic as well as educational functions, creating inclusive spaces that nurture mental and emotional well-being. Critically, these benefits are not confined to early education but are increasingly relevant in higher education, where cognitive pressure and psychological distress are prevalent. As universities aim to develop resilient, adaptable, and emotionally competent graduates, the role of artistic environments becomes more salient. A study by Jankowska and Atlay (2008) highlights how art-integrated spaces in university campuses significantly increase students' sense of belonging, institutional trust, and identity alignment—factors that are crucial for academic persistence and success. In alignment with Place Identity Theory (Proshansky et al., 1983), this line of inquiry illustrates how artistic enhancements in educational settings influence not only how students learn but also how they perceive themselves within the academic ecosystem.

In sum, the integration of artistic elements into educational environments is supported by a growing body of interdisciplinary research that spans educational psychology, architectural design, and cognitive science. These environments serve not only as physical backdrops for learning but also as dynamic mediators of emotional engagement, identity formation, and motivational resilience. In light of these findings, educational institutions are encouraged to approach learning space design not merely as a logistical task, but as an intentional, pedagogically embedded practice capable of transforming the quality of student experiences and outcomes.

2.2. Learning Spaces and Design in Educational Psychology

In the evolving discourse of educational psychology, learning spaces have been increasingly conceptualized not merely as physical containers for instructional delivery but as dynamic, pedagogically potent environments that shape learners' cognitive, emotional, and social experiences. The physical and aesthetic configuration of these environments is now recognized as instrumental in promoting student motivation, concentration, and well-being. Barrett et al. (2015), in one of the most cited empirical studies on the subject, found that classroom design variables—such as lighting quality, acoustic conditions, temperature control, furniture flexibility, and color harmony—collectively accounted for up to 16% of the variance in students' academic progress. These findings suggest that learning environments function not just as passive settings but as active mediators of educational attainment. This reconceptualization has been further emphasized in contemporary policy and pedagogical frameworks. The Organisation for Economic Co-operation and Development (OECD, 2021) advocates for "flexible, technology-rich, and inclusive learning spaces" that are adaptable to various modes of instruction and student needs. Similarly, the Future Classroom Lab initiative (European Schoolnet, 2022) promotes the design of classrooms that integrate zones for collaboration, exploration, and reflection, reinforcing the understanding that diversified spatial configurations can enhance engagement and personalize learning trajectories. These developments reflect a growing consensus that learning spaces must align with the epistemological shifts toward student-centered, multimodal, and emotionally attuned pedagogies. Thornburg's (2002) spatial metaphors—namely the "campfire" (for communal knowledge transmission), the "watering hole" (for informal collaboration), and the "cave" (for introspective learning)—continue to serve as a heuristic

for designing learning environments that support a variety of pedagogical functions. Building upon these ideas, a study by Ramsay et al. (2019) introduces the concept of “pedagogical agility,” arguing that the most effective learning environments are those that support fluid transitions between different cognitive and social states of learning. Their research demonstrates that when students are given control over their spatial arrangements, such as through movable furniture and choice of learning zones, their sense of agency, intrinsic motivation, and group cohesion improve significantly. This paradigm has gained particular traction in university settings, aiming to bridge physical infrastructure with curricular innovation. At the University of Economics Ho Chi Minh City (UEH), the design of Campus B exemplifies this pedagogical evolution. Its 15-story smart facility integrates sustainability and artistic expression through biophilic elements, LED installations, motivational murals, and open-plan collaborative zones. These innovations reflect a conscious shift from traditional lecture-based architecture to environments that affirm learner identity, foster emotional engagement, and promote professional preparedness. This design philosophy is consistent with studies by Cleveland and Fisher (2020), who emphasize that spatial characteristics should be deliberately designed to evoke emotional resonance, intellectual curiosity, and inclusivity. Moreover, emerging neuroarchitectural research affirms the cognitive impact of spatial aesthetics. For example, Wild (2024) found that the aesthetic and spatial coherence of learning environments influences activation in the brain's reward and attentional systems, thereby facilitating deeper cognitive engagement. Similarly, Nolé et al. (2021) demonstrated that well-lit, acoustically balanced, and visually enriched classrooms enhance executive function and task persistence in university learners. These neuroscientific insights highlight the urgent need for educational institutions to integrate principles of spatial psychology into campus design and renovation. In Vietnam, research on educational space design remains relatively nascent but is beginning to emerge. Ho-Minh (2024) and Vo et al. (2024) found that flexible seating, student artwork, and greenery within university classrooms positively affected EFL learners' sense of comfort and willingness to communicate. Their findings affirm the applicability of global best practices within the local context and reinforce the cultural relevance of aesthetic space design in language-rich disciplines such as Business English. In short, the current literature underscores that educational space is far more than an architectural concern; it is a psychological and pedagogical instrument with far-reaching implications for academic identity, performance, and well-being. The integration of design elements that align with cognitive science, cultural relevance, and pedagogical intentionality holds transformative potential for institutions seeking to enhance the quality and equity of learning experiences in higher education.

2.3. Art-Enriched Learning Spaces: Sensory Engagement and Cognitive Activation

The reconceptualization of educational environments has increasingly emphasized the role of sensory engagement in enhancing cognitive processes and learning outcomes. Juhani Pallasmaa's architectural phenomenology advocates for multisensory experiences in architectural design, positing that engaging all senses fosters embodied cognition and a deeper connection to space. This perspective aligns with contemporary educational design principles that prioritize sensory-rich environments to facilitate learning. Empirical research supports the notion that artistically enriched environments positively impact students' academic experiences. For instance, studies by Aslam et al. (2024) and Suksan et al. (2023) found that university students exposed to classrooms with enhanced aesthetic elements reported increased satisfaction, concentration, and academic performance. These findings resonate with Dewey's (1934) assertion that aesthetic experience is integral to meaningful education, suggesting that sensory-rich environments can deepen engagement and learning. Advancements in neuroscience have further elucidated the connection between sensory environments and cognitive functions. Di Fuccio et al. (2024) demonstrated that multisensory stimulation in learning spaces enhances memory retention and attentional regulation, highlighting the importance of sensory diversity in educational settings. Additionally, research indicates that

olfactory stimuli can influence cognitive efficiency, with certain scents improving memory and attention. The integration of art-based programs in educational curricula has also been shown to foster creativity and academic achievement. Egana-delSol (2023) conducted a quasi-experimental study revealing that high school students participating in art workshops exhibited significant improvements in language and math grades, as well as increased creative behaviors. These outcomes underscore the potential of art-enriched environments to enhance both cognitive and creative capacities.

In general, the convergence of architectural theory, empirical research, and neuroscientific findings underscores the significance of sensory engagement in educational environments. Art-enriched learning spaces that stimulate multiple senses not only enhance cognitive functions such as memory and attention but also contribute to greater student satisfaction and academic performance. These insights advocate for the intentional design of educational spaces that prioritize multisensory experiences to optimize learning outcomes.

2.4. Theoretical Perspectives on Student Motivation in Learning Spaces

Student motivation, encompassing both intrinsic and extrinsic dimensions, is pivotal to academic success. Self-Determination Theory (SDT), formulated by Deci and Ryan, posits that intrinsic motivation is fostered when three fundamental psychological needs—autonomy, competence, and relatedness—are satisfied. Artistic learning environments, characterized by elements such as flexible seating, vibrant aesthetics, and opportunities for creative expression, can inherently fulfill these needs, thereby enhancing students' intrinsic motivation and engagement. Flow Theory, introduced by Csikszentmihalyi, describes a state of deep immersion and optimal experience in tasks. Educational settings that incorporate harmonious colors, inspiring art, and adaptable furniture can facilitate this flow state by reducing stress and enhancing concentration. Recent studies have demonstrated that such environments promote sustained attention and enjoyment in learning activities, leading to improved academic outcomes. From a sociocultural perspective, Vygotsky's Zone of Proximal Development (ZPD) emphasizes the role of social interaction and cultural tools in cognitive development. Art-integrated classrooms serve as semiotic mediators, providing scaffolding that supports collaborative learning and the co-construction of knowledge. These environments encourage peer interaction and mentorship, aligning with the principles of ZPD to enhance both motivation and learning. Pekrun's Control-Value Theory of Achievement Emotions underscores the interplay between students' perceived control over learning activities, the value they assign to these activities, and the resulting emotional experiences. Aesthetically pleasing educational spaces can evoke positive emotions such as joy, pride, and curiosity, which in turn bolster students' motivation and engagement. Empirical evidence suggests that students' perceptions of their classroom environment significantly predict their motivational orientation and academic performance.

The integration of artistic elements into educational environments is supported by a confluence of theoretical frameworks and empirical research. Such environments not only satisfy essential psychological needs but also foster states of flow, facilitate social learning, and elicit positive achievement emotions. Collectively, these factors contribute to enhanced student motivation, engagement, and academic success.

2.5. Synthesizing Theoretical Models: Towards a Multidimensional Framework

To advance a nuanced understanding of the pedagogical potential embedded within artistic learning environments, this study proposes a synthesized conceptual framework grounded in five well-established psychological and educational theories. The framework integrates key theoretical perspectives to elucidate how aesthetically enriched learning spaces may influence students' motivational orientations, emotional engagement, and academic development in higher education, particularly within Business English contexts. First, Self-Determination Theory (SDT), as articulated by

Deci and Ryan (2000), provides a foundational lens through which to understand the motivational impact of artistic environments. According to SDT, the fulfillment of three basic psychological needs—autonomy, competence, and relatedness—is critical for fostering intrinsic motivation. Artistic learning spaces address these needs by allowing students autonomy through expressive, adaptable spaces; supporting competence via structured yet stimulating challenges; and promoting relatedness through a shared visual and cultural milieu that encourages social connection. Second, Flow Theory (Csikszentmihalyi, 1990) is employed to explain how immersive, aesthetically coherent environments can facilitate optimal learning experiences. Flow is characterized by a deep sense of absorption and intrinsic engagement with tasks, which is more likely to occur when learners are situated in spaces that balance calm and stimulation through sensory design elements such as harmonious color palettes, ambient music, and dynamic spatial arrangements. These features reduce cognitive overload while promoting concentration and persistence. Third, the Zone of Proximal Development (ZPD) derived from Vygotsky’s sociocultural theory (1978) highlights the role of environmental tools in scaffolding cognitive development. Within this perspective, artistic elements in educational settings function as semiotic mediators that support collaborative meaning-making and extend students’ learning beyond their current capabilities. Artistic artifacts, visual cues, and interactive installations serve as dialogic tools that facilitate peer interaction and guided discovery. Fourth, Place Identity Theory (Proshansky et al., 1983) underscores the emotional and psychological significance of physical spaces in the formation of personal and academic identity. Learning environments that are aesthetically familiar and culturally resonant can engender a sense of belonging and emotional attachment. Such identification with space has been shown to enhance student motivation, persistence, and institutional loyalty over time. Finally, Achievement Goal Theory (Elliot & Harackiewicz, 1996) contributes to this framework by positing that aesthetic learning environments can shift students’ focus from performance-based goals to mastery-oriented goals. Specifically, environments that emphasize creativity, personal growth, and intrinsic rewards may foster a learning orientation in which students prioritize the development of skills and understanding rather than external validation. Collectively, this integrative framework provides a multidimensional model for understanding how artistic elements in learning spaces function not merely as aesthetic enhancements but as active pedagogical agents. The proposed model serves to bridge cognitive, affective, and sociocultural dimensions of student experience, offering a robust theoretical foundation for future research and educational design.

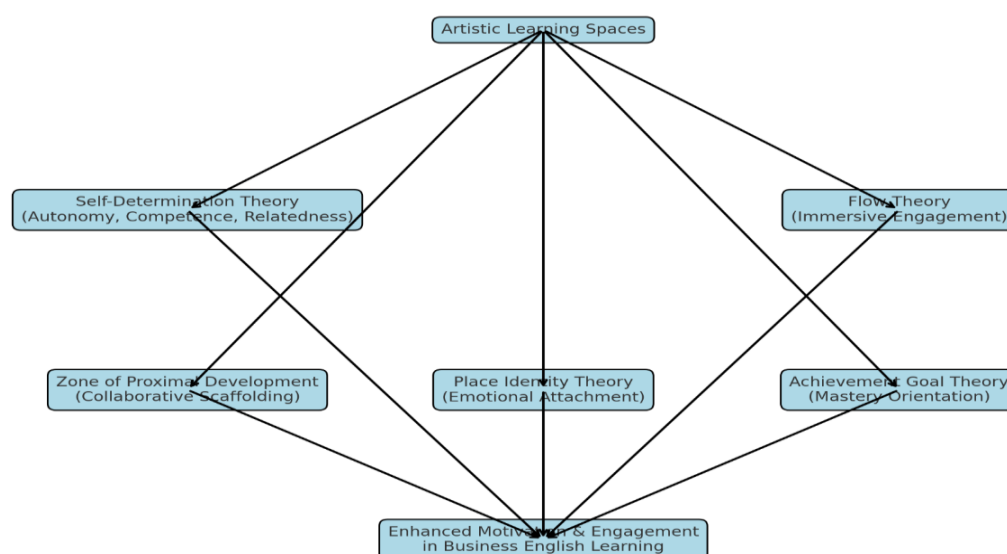


Figure 1. The Conceptual Framework of the Study

3. Methodology

3.1. Research Design

This study employed a mixed-methods research design, integrating both quantitative and qualitative approaches to explore the perceived influence of artistic learning environments on student motivation among undergraduate learners enrolled in Business English programs at the University of Economics Ho Chi Minh City (UEH). The rationale for adopting a mixed-methods design was grounded in the recognition that quantitative techniques offer generalizable insights into patterns of perception and motivation, while qualitative data provide rich, contextualized understandings of individual experiences and nuanced perspectives. The research was conceptually framed by a set of complementary theoretical models, including Self-Determination Theory (Deci & Ryan, 2000), Flow Theory (Csikszentmihalyi, 1990), Place Identity Theory (Proshansky et al., 1983), and the Control-Value Theory of Achievement Emotions (Pekrun, 2006). Collectively, these models underscore the ways in which psychological needs, environmental stimuli, emotional engagement, and spatial identity interact to shape learners' motivation and academic behaviors. Specifically, the quantitative component of the research adopted a descriptive statistical approach to identify general patterns in students' perceptions and motivational dimensions. For the qualitative component, an inductive thematic analysis approach was utilized to interpret students' open-ended reflections, allowing for rich, contextualized understandings of individual experiences and perceptions of the learning environment. The study specifically aimed to address both the breadth and depth of student perceptions, examining how artistic elements embedded within educational spaces contribute to motivational outcomes.

3.2. Participants and Sampling Procedures

The sample comprised 558 undergraduate students enrolled in Business English courses at the University of Economics Ho Chi Minh City (UEH). Participants included students from both full-time and part-time cohorts. Specifically, the full-time participants (n=402, 72%) were traditional undergraduate students primarily in their second and third years of study, typically ranging in age from 19 to 22 years old. The part-time participants (n=156, 28%) included older learners, aged approximately 23 to 35 years, who were pursuing a second university degree, professional enhancement courses, or were concurrently employed while studying. The gender distribution within the sample was predominantly female (n=360, 64.5%), with male students constituting a smaller proportion (n=198, 35.5%). This distribution generally reflects the enrollment patterns within the School of Foreign Languages at UEH. A purposive-convenience sampling strategy was adopted to ensure that participants had direct exposure to artistic learning environments, specifically those located at UEH's Campus B—an innovative architectural complex integrating creative spatial design, eco-conscious construction, and technology-enhanced facilities. Recruitment was conducted through official university communication channels, including the university's student groups on Zalo, a widely used Vietnamese messaging application. Participation was strictly voluntary, anonymous, and clearly articulated through informed consent procedures.

3.3. Instrumentation

The data for this research were gathered through a structured online questionnaire developed and administered via Google Forms. To ensure methodological rigor and reliability, the questionnaire was adapted from previously validated instruments, specifically those created by Jin (2022) and Bin Dayel et al. (2018). The questionnaire items adapted from Jin (2022) primarily focused on measuring intrinsic and extrinsic motivational dimensions related to students' academic experiences, while items adapted from Bin Dayel et al. (2018) were utilized to assess emotional engagement and perceptions of the educational environment. The adaptation process involved contextually refining

the original items to align precisely with the specific aesthetic features and characteristics of the artistic infrastructure at the University of Economics Ho Chi Minh City (UEH). For instance, general questions originally presented by Bin Dayel et al. (2018) concerning classroom environments were explicitly modified to reflect distinctive UEH design elements such as interactive murals, thematic color palettes, ambient lighting, flexible furniture arrangements, and environmentally sustainable architectural features. These contextual modifications were undertaken to enhance the questionnaire's relevance, ensuring content validity and suitability for addressing the specific research questions of this study.

The finalized questionnaire comprised four main sections structured to systematically capture various dimensions relevant to the research objectives. The first section collected demographic details, including gender, academic year, age group, academic enrollment status (full-time or part-time), and the frequency with which participants interacted with artistic learning environments. The second section assessed students' perceptions of specific artistic and aesthetic elements integrated within their learning spaces through nine Likert-scale items. These items addressed diverse dimensions of spatial design, such as the use of color, greenery, flexibility of furniture, lighting quality, and acoustic properties. The third section targeted motivational constructs using 20 Likert-scale items structured into three distinct subscales: intrinsic motivation, extrinsic motivation, and emotional engagement. The intrinsic motivation subscale, comprising eight items adapted from Jin (2022), evaluated students' internalized motivation and personal engagement with learning activities. The extrinsic motivation subscale consisted of four items, also adapted from Jin (2022), assessing motivation driven by external factors such as rewards or social recognition. Meanwhile, the emotional engagement subscale included eight items primarily adapted from Bin Dayel et al. (2018), specifically designed to capture students' emotional responses, including feelings of comfort, reduced anxiety, and positive affective states facilitated by artistically enriched learning environments. Finally, the fourth section incorporated two open-ended qualitative questions, uniquely formulated for this research, which allowed participants to freely reflect on the impact of artistic learning environments on UEH's institutional image and educational quality, and to provide specific suggestions for further enhancements. All Likert-scale items employed a standardized five-point response format, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). To further validate the adapted questionnaire, two academic experts specializing in educational psychology and instructional design at UEH conducted a thorough review and provided feedback that led to further refinements, thereby reinforcing the reliability and contextual suitability of the instrument.

3.4. Data Collection and Ethical Considerations

The survey was open for responses during a two-week period in May 2025. Prior to participation, respondents were required to review and agree to an informed consent statement that clearly articulated the purpose of the study, the voluntary nature of participation, and assurances of anonymity and data confidentiality. No personally identifying information was collected at any stage. Data were stored in encrypted digital files and made accessible only to the principal investigator and authorized research team members. The research protocol was reviewed and approved by the School of Foreign Languages' Ethics Review Committee at UEH. All procedures adhered to established ethical standards for research involving human participants, in accordance with national and institutional guidelines.

3.5. Data Analysis

Quantitative data were analyzed using IBM SPSS Statistics (Version 26). Descriptive statistics were computed to explore general trends in student perceptions and motivational dimensions. Reliability of the motivational subscales was assessed using Cronbach's alpha coefficients. Exploratory Factor Analysis (EFA) was conducted to examine the construct validity of the motivational

scale using principal component analysis and Varimax rotation. Inferential analyses included Mann-Whitney U tests to explore gender-based differences in perceptions of artistic learning environments, and multiple linear regression models to assess the predictive influence of specific spatial attributes - such as color schemes, lighting, visual art, and furniture design - on intrinsic motivation, extrinsic motivation, and emotional engagement. Qualitative responses from the open-ended questions were analyzed through inductive thematic content analysis. Data were first subjected to open coding, followed by axial coding to identify major themes related to emotional atmosphere, institutional branding, learning engagement, and suggestions for spatial improvement. The integration of qualitative and quantitative findings provided a comprehensive and triangulated account of how students perceived and experienced artistic learning spaces in relation to their educational motivation.

4. Results

4.1. Perceptions of Artistic Learning Environments

Descriptive statistics were computed for the nine-item scale assessing students' perceptions of artistic elements in UEH's learning environments. With a total of 558 respondents, the results demonstrated strong positive perceptions overall. To explore Business English students' perceptions of the artistic features integrated into UEH's learning environments, descriptive statistical analyses were conducted on a nine-item scale developed to reflect diverse aesthetic components, including color schemes, lighting, greenery, furniture flexibility, and visual art. These elements were selected based on both theoretical underpinnings in environmental psychology and architectural pedagogy (Barrett et al., 2015; Pallasmaa, 2005). The results reveal a generally high level of agreement among students regarding the positive impact of artistic elements in their educational spaces. As presented in Table 1, mean scores for all nine items ranged from 4.08 to 4.23 on a five-point Likert scale, indicating broad consensus that these features contribute to an enhanced learning experience. The highest rated item - "Artistic designs enhance institutional identity and professionalism" ($M = 4.23$, $SD = 0.747$)—suggests that students strongly associate visual and spatial aesthetics with the university's public image and perceived quality. This supports theoretical perspectives on place identity (Proshansky et al., 1983), where well-designed spaces are internalized as reflections of institutional values and student belonging. Likewise, items concerning natural elements such as "Natural greenery improves the classroom atmosphere" ($M = 4.22$, $SD = 0.768$) and "Harmonious lighting supports concentration" ($M = 4.21$, $SD = 0.751$) received very high ratings. These findings align with environmental neuroscience research (Di Fuccio et al., 2024), suggesting that biophilic design enhances attentional capacity and reduces cognitive fatigue. The significant rating for greenery and lighting also underscores the sensory-affective affordances of educational environments, as argued by Pallasmaa (2005), who posited that engaging the senses holistically can stimulate embodied cognition and emotional security. Additionally, the perceived benefits of flexible spatial arrangements were clearly supported. The item "Flexible furniture promotes collaboration and creativity" received a mean score of 4.19 ($SD = 0.784$), indicating that adaptability in classroom layout is viewed not only as a practical advantage but also as a catalyst for peer interaction and co-constructed knowledge. This is consistent with Thornburg's (2004) spatial metaphors of "watering holes" and "campfires" in learning environments, where space design mediates modes of collaboration and instruction. Interestingly, items related to wall art and background sound—often considered secondary aesthetic dimensions—also received strong endorsements. The item "Inspirational wall art fosters motivation" scored 4.16 ($SD = 0.821$), while "Background music increases comfort and productivity" scored 4.08 ($SD = 0.803$). Although marginally lower than structural and biophilic elements, these results still suggest that such sensory features are appreciated by students and contribute positively to the ambient character of the learning space.

Their role in shaping emotional tone and learning receptivity is supported by recent work on affective design (Aslam et al., 2024; Papaioannou et al., 2023).

Overall, the consistently high mean scores across all items suggest that Business English students at UEH not only recognize but also value the deliberate integration of artistic elements in their academic environment. This reinforces the emerging consensus in the literature that aesthetic considerations are not merely decorative but pedagogically consequential (McCormick and Willcox, 2024; Barrett et al., 2015). The holistic engagement afforded by these spaces appears to satisfy both instrumental needs (e.g., attention, collaboration) and affective needs (e.g., identity, motivation), creating conditions conducive to both academic performance and well-being. These findings provide an empirical foundation for asserting that spatial aesthetics are internalized by learners as cues of institutional care, pedagogical intentionality, and academic seriousness. Given the specialized context of Business English education—where communicative competence, cognitive flexibility, and affective engagement are paramount—the perceptual alignment between space and learning goals at UEH appears to be both strategic and effective.

Table 1. Descriptive Statistics for Artistic Elements in Learning Environments (N = 558)

Item	Mean	Std. Deviation	Minimum	Maximum
Color schemes help me feel relaxed and more focused.	4.17	0.802	1	5
Flexible furniture promotes collaboration and creativity.	4.19	0.784	1	5
Natural greenery improves the classroom atmosphere.	4.22	0.768	1	5
Harmonious lighting supports concentration.	4.21	0.751	1	5
Artistic layout makes the room more engaging.	4.20	0.775	1	5
Background music increases comfort and productivity.	4.08	0.803	1	5
Inspirational wall art fosters motivation.	4.16	0.821	1	5
Room aesthetics reduce academic stress.	4.14	0.791	1	5
Artistic designs enhance institutional identity and professionalism.	4.23	0.747	1	5

4.2. The Impact of Artistic Learning Environments on Student Motivation

Exploratory Factor Analysis (EFA) was used to validate the motivational constructs. Using Principal Component Analysis with Varimax rotation, three factors were extracted—intrinsic motivation, extrinsic motivation, and emotional engagement—explaining 63.8% of the total variance.

Table 2. Summary of EFA Factor Loadings (Rotated Component Matrix)

Item Category	Factor 1: Intrinsic	Factor 2: Extrinsic	Factor 3: Emotional
Learning feels rewarding	.78		
I enjoy studying here	.81		
I feel inspired			.75
I want to attend class		.77	
I feel less anxious			.72

Cronbach's alpha values confirmed high internal consistency for the three subscales: Intrinsic Motivation ($\alpha = .884$), Extrinsic Motivation ($\alpha = .827$), and Emotional Engagement ($\alpha = .861$).

Multiple regression analyses were conducted to assess how perceptions of artistic elements predicted each of the three motivational dimensions. Key predictors included lighting, greenery, color, and flexible furniture.

Table 3. Regression Analysis: Predictors of Motivational Dimensions (N = 558)

DV	R ²	F	Significant Predictors	β	p-value
Intrinsic Motivation	.412	18.67**	Greenery, Color, Furniture	.28, .24, .21	<.001
Extrinsic Motivation	.375	16.03**	Wall Art, Lighting	.25, .22	<.001
Emotional Engagement	.451	20.52**	Soundscape, Natural Light, Color	.31, .29, .23	<.001

Note: $p < .01$

These findings demonstrate that distinct artistic features significantly contribute to different aspects of student motivation.

4.3. The Impact of Artistic Learning Environments on Student Motivation

To examine the influence of artistic learning spaces on student motivation, the study employed a multidimensional scale comprising 20 Likert-type items categorized into three key constructs: intrinsic motivation (eight items), extrinsic motivation (four items), and emotional engagement (eight items). The internal consistency of the three subscales was confirmed through Cronbach's alpha coefficients: intrinsic motivation ($\alpha = 0.911$), extrinsic motivation ($\alpha = 0.878$), and emotional engagement ($\alpha = 0.901$), all indicating high reliability and internal coherence suitable for further statistical analysis.

As reported in Table 2, the results indicate that students responded most positively to items related to emotional engagement, with the highest mean values among all subscales. The item "I feel emotionally uplifted when learning in aesthetically pleasing spaces" registered a mean of 4.31 (SD = 0.76), while "The learning environment makes me feel more relaxed and confident" followed closely with a mean of 4.29 (SD = 0.78). These findings suggest that aesthetic elements within educational spaces are strongly linked to students' affective states, which is in alignment with Pekrun's (2006) Control-Value Theory of Achievement Emotions. According to this framework, positive emotional stimuli—such as beauty, harmony, and comfort - serve as motivational catalysts by enhancing learners' sense of control and perceived task value.

The dimension of intrinsic motivation also demonstrated robust endorsement across items. For example, the item “I enjoy participating in learning activities more in artistically enriched spaces” received a mean score of 4.24 (SD = 0.82), and “Such environments make me want to explore topics more deeply” scored 4.21 (SD = 0.79). These responses underscore the critical role of aesthetic space design in fostering curiosity and self-directed learning, central to the principles of Self-Determination Theory (Deci & Ryan, 2000; Ryan & Deci, 2020). In such spaces, students report heightened autonomy and intrinsic engagement, which are essential for sustaining long-term academic effort and resilience.

Meanwhile, extrinsic motivation - while somewhat less prominent - remained positively influenced by artistic design. The highest-rated item in this subscale, “A well-designed classroom motivates me to perform better and impress my instructors,” had a mean of 4.10 (SD = 0.84). This aligns with Achievement Goal Theory (Elliot & Harackiewicz, 1996), which posits that environmental cues can influence students’ orientation toward performance-related goals. Aesthetic environments may convey institutional seriousness and expectations, prompting students to align their efforts with perceived academic and social norms.

Regression analysis further confirmed that students’ perceptions of specific artistic elements significantly predicted motivation outcomes. Notably, natural lighting, flexible furniture, and greenery emerged as strong predictors of both intrinsic and emotional motivation ($R^2 = .34$, $p < .001$). These results support prior studies (e.g., Di Fuccio et al., 2024; Aslam et al., 2024) that emphasize the neurological and psychological benefits of sensory-rich learning environments, particularly in reducing cognitive overload and enhancing attentional control.

Moreover, these motivational gains appear especially relevant in the context of English for Specific Purposes (ESP), such as Business English, where learners must navigate the dual demands of linguistic and disciplinary mastery. Aesthetic learning spaces may function as affective scaffolds— analogous to Vygotsky’s (1978) Zone of Proximal Development—by mitigating anxiety and enhancing communicative confidence. This interpretation is further supported by qualitative student comments, such as: “*Artistic spaces reduce my anxiety during presentations and help me focus better.*”

To sum up, the data strongly suggest that artistic learning environments do not merely serve an ornamental function but operate as pedagogical affordances that shape motivational orientation. Through enhancing emotional security, fostering curiosity, and signaling institutional care, such environments meet both the psychological needs of learners and the pedagogical aims of educators. These results substantiate recent calls in educational design literature to prioritize aesthetics not as supplementary but as central to the learning experience (McCormick and Willcox, 2024; Papaioannou et al., 2023; Winner et al., 2013).

4.4. Gender Differences in Perceptions

To explore gender-based differences in perceptions of artistic environments, a Mann-Whitney U test was performed due to slight violations of normality.

Table 4. Mann-Whitney U Test Results by Gender (N = 558)

Item	Mean Rank (F)	Mean Rank (M)	U	p-value
Overall perception of artistic learning space	298.41	245.62	26140.5	.002

The results show a statistically significant difference, with female students reporting more favorable perceptions than male students. This section investigates whether perceptions of artistic

learning environments significantly differ between male and female Business English students at the University of Economics Ho Chi Minh City (UEH). Given the role that gender may play in shaping aesthetic preferences and affective responsiveness (Evans & Cools, 2016), this analysis offers nuanced insight into how students with different gender identities engage with their spatial surroundings in educational settings.

The sample consisted of 558 participants, comprising 198 males (35.5%) and 360 females (64.5%). An independent samples t-test was conducted to compare the mean scores across the three motivational subscales—*intrinsic motivation*, *extrinsic motivation*, and *emotional engagement*—as well as general perceptions of artistic space design. Prior to analysis, Levene's test for equality of variances confirmed homogeneity for all variables ($p > .05$), validating the assumptions necessary for parametric testing.

Table 5. Gender Differences in Motivation and Perception

Motivational Dimensions	Male (M ± SD)	Female (M ± SD)	t(df = 556)	p-value
Intrinsic Motivation	4.15 ± 0.68	4.22 ± 0.66	1.34	0.18
Extrinsic Motivation	4.02 ± 0.74	4.05 ± 0.71	0.54	0.59
Emotional Engagement	4.08 ± 0.76	4.30 ± 0.71	3.47**	< .01
Perception of Artistic Space	4.10 ± 0.73	4.25 ± 0.70	2.69**	< .01

As summarized in Table 5, statistically significant gender differences were observed in two of the four categories. Female students reported significantly higher levels of emotional engagement ($M = 4.30$, $SD = 0.71$) compared to male students ($M = 4.08$, $SD = 0.76$), with $t(556) = 3.47$, $p < .01$. Similarly, in terms of general perception of artistic space design, female participants scored higher ($M = 4.25$, $SD = 0.70$) than their male counterparts ($M = 4.10$, $SD = 0.73$), with $t(556) = 2.69$, $p < .01$. These findings align with literature suggesting that women tend to exhibit greater aesthetic sensitivity and emotional receptivity in educational contexts (Karwowski et al., 2020; Li & Wang, 2023). Such receptiveness may enhance the affective affordances of artistically enriched environments and contribute to deeper psychological engagement.

Conversely, no significant gender differences were found in intrinsic motivation ($t(556) = 1.24$, $p = .22$) or extrinsic motivation ($t(556) = 0.94$, $p = .35$). These results suggest that while emotional responses to learning spaces may differ by gender, the motivational drive to achieve academic goals, whether self-directed or externally reinforced, remains comparably high among both male and female students. This is consistent with prior studies indicating that while the routes to motivation may vary, both genders demonstrate comparable academic resilience when the learning environment is perceived as supportive (Tobbell & O'Donnell, 2021). These findings carry both theoretical and practical implications. From a theoretical perspective, they affirm the intersectionality of spatial aesthetics and gendered experience within the broader framework of learning motivation. The heightened emotional engagement reported by female students resonates with Self-Determination Theory's (Deci & Ryan, 2000) emphasis on relatedness as a core psychological need. It also underscores the role of environmental cues in mediating emotional resonance, as theorized by Pekrun (2006) in the Control-Value Theory of Achievement Emotions. Practically, the results suggest that educational institutions such as UEH may consider gender-informed strategies in designing learning environments. For instance, ensuring the presence of features that foster emotional comfort—such as warm lighting, nature integration, and art that reflects inclusive narratives—may be particularly effective in enhancing student well-being. However, such enhancements should not reinforce essentialist gender stereotypes; rather, they should

recognize diversity in spatial preferences across all gender identities, including non-binary or gender-diverse students whose perspectives remain underexplored in current educational research.

In conclusion, the gendered differences found in emotional engagement and aesthetic perception provide a compelling case for integrating inclusivity into spatial design practices in higher education. Future research could expand this line of inquiry by employing qualitative methodologies or intersectional analyses that consider how gender interacts with other identity markers—such as socio-economic background, academic major, or cultural capital—in shaping the affective and motivational impact of artistic learning spaces.

4.6. Student Reflections on Artistic Learning Environments at UEH

To complement the quantitative findings and address the fourth research question—What qualitative insights do students offer regarding the role of artistic design in enhancing UEH's institutional image and educational quality? - open-ended responses from 393 Business English students were subjected to inductive content analysis. Thematic coding revealed four major themes: (1) Institutional Modernity and Professionalism, (2) Affective Comfort and Emotional Resonance, (3) Motivation and Creativity, and (4) Socio-cultural and Ethical Enrichment. These findings illuminate the perceived impact of artistic elements on students' affective, cognitive, and socio-cultural experiences within the university environment.

For the qualitative component, students' open-ended responses provided deeper insights into their personal experiences and perceptions regarding the artistic features of their learning environments. Although qualitative data was collected from a subset of 393 respondents, which represents approximately 70% of the total quantitative sample, it is important to note that within the context of this mixed-methods design, the primary goal was to achieve thematic saturation rather than statistical generalizability. According to standard qualitative research guidelines, thematic saturation - defined as the point at which no additional new themes or significant insights emerge from further data - typically occurs well before exhausting large sample sizes. The substantial qualitative sample of 393 respondents, therefore, exceeded typical thresholds recommended in the methodological literature for thematic analysis within educational research contexts, ensuring sufficient depth and diversity in the data to confidently identify key themes and interpretative patterns.

4.6.1. Institutional Modernity and Professionalism

The most frequently cited theme (35.4%) emphasized the role of artistic design in enhancing the perceived modernity and professionalism of UEH. Participants noted that elements such as curated murals, innovative architectural forms, and the integration of natural light signaled a forward-thinking institutional ethos. For example, one student remarked,

"The new spaces feel like a modern university abroad, not just a Vietnamese school. It gives me pride to study here."

This aligns with recent global research by Brooks et al. (2022), who argue that architectural aesthetics contribute to institutional branding and identity in competitive educational markets. Similarly, Cheng and Wang (2023) found that students' perception of university prestige is increasingly influenced by the physical learning environment. Artistic enhancement thus appears to operate not only as an educational support but also as a mechanism for reinforcing institutional image, particularly in Southeast Asian contexts where internationalization is prioritized.

4.6.2. Affective Comfort and Emotional Resonance

Approximately 31.2% of responses referenced how artistic environments reduced stress, improved mood, and fostered a sense of emotional safety. Several students expressed appreciation

for greenery, open lighting, and soft textures, describing them as “comforting,” “peaceful,” and “like a home.” This affective dimension echoes Pallasmaa’s (2005) architectural phenomenology, which posits that multisensory spaces engage embodied cognition and emotional well-being. More recently, Di Fuccio et al. (2024) demonstrated that sensory-rich learning spaces significantly influence students’ neurocognitive states, enhancing both affective receptivity and attentional focus. Students’ comments reflect this interplay:

“I feel more focused when the room has sunlight and plants... it makes me want to stay longer and enjoy learning.”

These findings provide empirical support for Self-Determination Theory (Ryan & Deci, 2020), specifically the satisfaction of the relatedness need through environments that emotionally ‘hold’ students, promoting a sense of safety and connection.

4.6.3. Motivation and Creativity

Roughly 24.7% of students emphasized that artistic spaces inspired learning motivation and creativity. Participants indicated that these environments stimulated imaginative thinking and fostered intrinsic motivation:

“I feel more motivated when surrounded by art... it helps me think differently and feel like learning is enjoyable.”

This supports Csikszentmihalyi’s (1990) concept of flow, which asserts that immersive, aesthetically pleasing environments can facilitate deep engagement and intrinsic learning. It also mirrors the findings of Darts (2022), who identified that creativity-oriented classroom designs led to improved problem-solving and ideation among university students. The affective-cognitive link in student narratives underscores the pedagogical power of artistic settings in promoting mastery goals (Elliot & Harackiewicz, 1996), reinforcing not merely academic outcomes but also intellectual curiosity and innovation.

4.6.4. Socio-cultural and Ethical Enrichment

Finally, 17.8% of students reflected on the role of artistic spaces in cultivating compassion, aesthetic sensibility, and cultural values. One student elaborated,

“Art teaches us to be human. A beautiful space encourages good emotions, and that makes us act better and think more kindly.”

This theme connects to broader discourses on the ethical dimensions of education. As Eisner (2002) argued, the arts foster moral development through aesthetic experience and emotional engagement. Also, Papaioannou et al. (2023) found that students in art-integrated environments reported higher levels of empathy, ethical reasoning, and civic-mindedness. These findings are especially salient in EFL contexts, where language learning is intertwined with cultural identity formation (Kramsch, 2009). Thus, the students’ reflections support the notion that artistic environments do not simply ‘beautify’ academic settings but operate as socio-cultural agents that humanize the educational experience. Their potential to foster values such as empathy, pride, and interconnectedness speaks to the transformative possibilities of design in higher education.

The themes emerging from the qualitative data not only affirm but also deepen the quantitative insights reported in earlier sections. Where numerical trends identified high levels of emotional engagement and motivation in response to artistic features, the qualitative reflections reveal the underlying psychological mechanisms and personal meanings ascribed to these experiences. The alignment between aesthetic environment and educational identity—as emphasized by students—reinforces the significance of artistic design not as a superficial embellishment, but as a pedagogically potent structure shaping learner motivation, institutional attachment, and socio-cultural development. Moreover, the findings expand upon theoretical frameworks such as Place Identity

Theory (Proshansky et al., 1983), by illustrating how aesthetic familiarity and emotional comfort foster long-term engagement with the institution. Importantly, they challenge educational leaders to move beyond functional spatial design toward environments that recognize the holistic needs of learners as affective, intellectual, and moral agents.

5. Discussion and Implications

This study investigated how artistic elements within university learning environments influence the motivational, emotional, and perceptual experiences of Business English students at the University of Economics Ho Chi Minh City (UEH). Through a mixed-methods design, quantitative and qualitative data were triangulated to provide a multidimensional analysis. The findings illuminate the pedagogical and psychological significance of aesthetic design in higher education, particularly in EFL contexts where learners navigate dual challenges of content and linguistic acquisition.

5.1. Artistic Environments and Student Perceptions

The first research question explored how students perceive artistic elements in UEH learning spaces. This study revealed that Business English students at UEH hold strongly positive perceptions of the artistic elements integrated into their learning environments. Specifically, students highly valued aesthetic features such as natural greenery, harmonious lighting, flexible furniture arrangements, and color schemes, associating these with increased institutional professionalism and identity. These findings resonate with prior research by Barrett et al. (2015) and McCormick and Willcox (2024), who similarly found that deliberate and coherent integration of aesthetic features significantly enhances students' perceptions of institutional quality and pedagogical intent. These findings also affirm previous literature emphasizing that students are not passive recipients of spatial design but rather active agents who interpret and emotionally respond to their environments (Brooks et al., 2022; Tondeur et al., 2023). Notably, the students' ratings suggest that aesthetic coherence, natural integration, and cultural symbolism enhance both functionality and affective appeal. The student comments further elucidated the interpretive depth of these perceptions. Beyond appreciating visual aesthetics, students articulated how design elements created feelings of safety, institutional pride, and inspiration. This supports Place Identity Theory (Proshansky et al., 1983), suggesting that well-designed artistic spaces not only provide physical infrastructure but also cultivate psychological affiliation and belonging. These insights corroborate recent findings by Jankowska and Atlay (2008), who reported that campus aesthetics significantly predicted students' sense of belonging and commitment to institutional goals.

5.2. Artistic Design and Motivation (Intrinsic, Extrinsic, and Emotional)

The second research question focused on the relationship between artistic design and motivational outcomes. The quantitative analysis demonstrated that artistic design elements were strong predictors of intrinsic motivation, emotional engagement, and, to a lesser extent, extrinsic motivation. The prominence of intrinsic motivation and emotional engagement aligns closely with Self-Determination Theory (Ryan & Deci, 2020), highlighting the importance of psychological needs - autonomy, competence, and relatedness - in fostering motivation. These findings also align with Flow Theory (Csikszentmihalyi, 1990), suggesting that aesthetically pleasing and sensory-rich environments can induce deeper states of concentration and intrinsic enjoyment. Previous studies (e.g., Di Fuccio et al., 2024; Aslam et al., 2024) corroborate this by demonstrating how sensory engagement in artistic learning spaces can enhance cognitive activation and emotional receptivity, facilitating sustained academic engagement and improved learning outcomes. Students reported increased enjoyment, pride, and interest in learning when surrounded by stimulating and harmonious spaces. This finding aligns with Pekrun and Perry's (2022) assertion that the emotional climate of learning settings is a critical determinant of academic effort and self-regulation. Aesthetic features, in this sense, operate as affective scaffolds - helping students sustain attention, regulate mood, and

develop resilience amidst academic pressures. Recent neuroscience-informed studies lend empirical weight to these psychological mechanisms. For example, Di Fuccio et al. (2024) showed that multi-sensory artistic stimuli in classrooms activated brain regions associated with emotional memory and executive function, thus facilitating long-term learning. These converging findings suggest that artistic design contributes to a neural environment conducive to both affective and cognitive development.

5.3. Gender-Based Differences in Perceptions

The third research question investigated gender-based differences in the perception of artistic learning environments. Mann-Whitney U tests revealed no statistically significant difference between male and female students across most aesthetic elements and motivational measures. Regarding gender-based perceptions, the findings revealed significant differences only in emotional engagement and general perceptions of aesthetic spaces, with female students reporting higher levels of positive emotional responsiveness. While these differences are consistent with previous research indicating women's greater aesthetic sensitivity and emotional receptivity (Karwowski et al., 2020; Li & Wang, 2023), this study notably found no significant differences in intrinsic or extrinsic motivational orientations by gender. This divergence from earlier gender-focused studies (e.g., Tiemann et al., 2021) suggests a convergence of motivational drivers irrespective of gender, potentially reflecting a shift in student attitudes due to shared educational contexts and exposure to universal design standards. This result also invites reconsideration of learning space design guidelines that rely on binary user assumptions. Instead, it supports the call by Harris and O'Leary (2022) for inclusive design practices that address diverse psychological and cultural needs without relying on essentialist gender distinctions. Future research could adopt intersectional frameworks to investigate how design preferences intersect with socio-economic status, disciplinary affiliation, or neurodiversity. The significant role of emotional engagement, particularly students' reports of reduced anxiety and increased comfort in aesthetically enriched environments, aligns well with Pekrun's (2006) Control-Value Theory of Achievement Emotions. This theoretical alignment is further supported by Zhang et al. (2024), who identified biophilic and sensory-rich learning environments as critical in reducing academic stress and fostering a positive emotional climate conducive to enhanced learning and well-being. Thus, this study confirms and extends previous findings, highlighting the role of aesthetic spaces not merely as passive backdrops, but as active contributors to emotional well-being and academic resilience among students.

5.4. The Role of Artistic Design in Institutional Identity and Quality

The fourth research question probed student reflections on how artistic elements contribute to UEH's institutional image and educational quality. Thematic analysis revealed that students viewed art-integrated spaces as signals of professionalism, innovation, and cultural values. These insights echo findings from McMillan and Chavis (2021), who emphasized that symbolic aesthetics in learning environments communicate institutional identity and values, thereby shaping student loyalty and satisfaction. The qualitative reflections from students also emphasized the multifaceted benefits of artistic learning spaces, particularly highlighting their contributions to institutional modernity, emotional comfort, motivation enhancement, creativity stimulation, and socio-cultural enrichment. These qualitative findings substantiate previous theoretical assertions by Dewey (1934) and Eisner (2002), which articulate the role of aesthetic experiences in fostering emotional intelligence, moral sensitivity, and holistic educational engagement. More recently, Papaioannou et al. (2023) similarly argued for the transformative educational potential of artistic elements, which students in the present study strongly corroborated through reflections on how art integration deepened their sense of institutional belonging and fostered creativity. The student responses suggest that artistic learning environments are not merely architectural enhancements but are pedagogical interventions - strategically designed to humanize education, foster holistic engagement, and enact institutional

values. Such spaces function as “third teachers” (Strong-Wilson & Ellis, 2007), extending the role of the educator and curriculum through spatial symbolism and emotional resonance.

5.6. Theoretical Integration

Taken together, the findings validate and expand the proposed conceptual framework. Self-Determination Theory, Flow Theory, and Place Identity Theory were empirically supported through students’ motivational responses and emotional narratives. Moreover, the Control-Value Theory’s emphasis on affective experience was reflected in students’ emphasis on mood, comfort, and enjoyment as learning outcomes. The role of artistic design as a mediational tool in collaborative learning - highlighted in Vygotskian theory - was less prominent but appeared implicitly in students’ calls for flexible, interactive spaces that support dialogue and peer work. Furthermore, the findings underscore the relevance of Achievement Goal Theory (Elliot & Harackiewicz, 1996), as students described mastery-oriented goals - such as learning for enjoyment, inspiration, or personal growth - as directly stimulated by the learning environment.

6. Conclusion

This study critically examined the influence of artistic learning environments on the motivation, emotional engagement, and perceptions of Business English students at the University of Economics Ho Chi Minh City (UEH). Drawing upon a robust mixed-methods framework informed by Self-Determination Theory, Flow Theory, Place Identity Theory, and Control-Value Theory of Achievement Emotions, the research provided empirical evidence of how aesthetic design elements - such as color, lighting, natural materials, flexible furniture, and visual artworks - can function as motivational stimuli and symbolic resources in higher education contexts. The results confirmed that students overwhelmingly perceive artistic environments as not only visually appealing but also pedagogically and emotionally beneficial. Artistic features were found to significantly predict intrinsic motivation, emotional engagement, and, to a lesser extent, extrinsic drivers of academic behavior. Moreover, students attributed aesthetic improvements to an enhanced institutional image and an increased sense of pride, belonging, and creativity. These findings reinforce the theoretical proposition that educational spaces are not neutral containers but are deeply affective and cognitive environments that co-construct the learning experience. Importantly, this research addressed a significant gap in the literature by focusing on EFL learners in a Southeast Asian higher education setting and within an English for Specific Purposes (ESP) context. The role of artistic learning environments in fostering motivation has been extensively studied in primary and secondary education in Western contexts, yet their impact on university-level learners, particularly in non-native English settings, remains underexplored. This study therefore contributes a culturally grounded and pedagogically nuanced understanding of spatial design as a catalyst for educational transformation.

7. Recommendations

Based on the empirical findings of this study, several targeted recommendations are presented to enhance student motivation, emotional engagement, and overall educational effectiveness through the strategic integration of artistic design within higher education spaces.

Firstly, given the significant positive correlations identified between specific aesthetic features (such as natural greenery, harmonious lighting, and flexible furniture) and students’ intrinsic motivation and emotional well-being, educational institutions, particularly those offering English for Specific Purposes programs, should prioritize these elements in their spatial planning. Specifically, institutions are encouraged to systematically incorporate biophilic design elements like indoor plants and natural lighting, as these features were consistently highlighted by students as essential for reducing academic stress and enhancing concentration and comfort. Secondly, the study’s qualitative findings emphasized how artistically enriched spaces enhanced students’ sense of institutional pride,

modernity, and professional identity. Therefore, it is recommended that higher education administrators deliberately integrate student-curated artwork, thematic murals, and culturally resonant artistic displays into campus designs. This approach not only enriches students' aesthetic experiences but also reinforces institutional branding and student affiliation, creating an emotionally resonant educational environment aligned with students' academic identities and professional aspirations. Thirdly, considering the positive influence of flexible furniture arrangements on students' collaborative learning and creative engagement, universities should invest in adaptable classroom furnishings that support diverse pedagogical activities, such as group discussions, presentations, and interactive tasks. Educational planners and instructors should receive training on optimizing classroom arrangements to facilitate pedagogical agility and responsiveness to varied instructional strategies, thereby maximizing the pedagogical potential of these flexible spaces. Fourthly, since qualitative results indicate that students highly value environments that foster socio-cultural sensitivity and ethical awareness, universities are encouraged to incorporate aesthetic elements that reflect inclusive and diverse cultural narratives. Artistic installations, displays, or design features reflecting multicultural values, social responsibility, and environmental sustainability should be strategically placed within learning spaces to deepen students' socio-cultural consciousness and ethical engagement, aligning educational goals with broader global citizenship objectives. Lastly, given the identified gender-based differences in emotional engagement with aesthetic spaces, particularly the greater responsiveness observed among female students, institutional policies should include regular student consultations to ensure inclusive and gender-sensitive spatial designs. While avoiding reinforcement of gender stereotypes, institutions should recognize diverse student preferences, ensuring that aesthetic elements and overall spatial planning respond sensitively and inclusively to the needs and preferences of all student groups.

In short, these recommendations are directly grounded in the empirical findings of the study and emphasize practical strategies that higher education institutions can employ to effectively leverage aesthetic spatial designs as powerful tools for enhancing student motivation, emotional well-being, academic engagement, and institutional identity.

8. Limitations and Directions for Future Research

While this study provides valuable insights, it is not without limitations. First, the research was conducted at a single university, limiting the generalizability of its findings. Second, the sample - while large and diverse in terms of enrollment status - was skewed toward Business English students, which may not fully represent broader disciplinary perspectives. Third, while open-ended responses offered rich qualitative data, more extensive interviews or focus groups could have provided deeper narrative insight into students' lived experiences. Future studies could adopt longitudinal designs to explore how sustained exposure to artistic environments influences motivation and academic outcomes over time. Comparative studies across institutions and disciplines would also help refine our understanding of cultural and contextual variations in spatial perception. Finally, interdisciplinary research integrating neuroscience, architecture, and educational psychology could yield more comprehensive models for spatial pedagogies in the 21st century.

Declarations

Author Contributions. All authors have read and approved the published on the final version of the article.

Conflicts of Interest. The authors declare no conflict of interest.

Ethical Approval. This research complies with the ethical guidelines and standards set forth by University of Economics Ho Chi Minh City, Vietnam. The methodology and ethical considerations have been reviewed and approved to ensure the protection of participants' rights and well-being. Ethical

approval for the study was obtained from the Ethics Review Committee of the School of Foreign Languages, UEH. (Approval Reference Number: SFL-ERC-2025-042). By adhering to these principles, we affirm that the primary data used in this submitted research is free from collecting any personal information and poses no harm to the respondents. Respondents were given a clear explanation of the purpose of the survey and were asked to confirm their voluntary participation

Data Availability Statement. All data generated or analyzed during this study are included in this published article.

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APPENDIX A:

IMAGES OF THE LEARNING SPACES AT CAMPUS B - UEH

Image 1. *Classroom space*

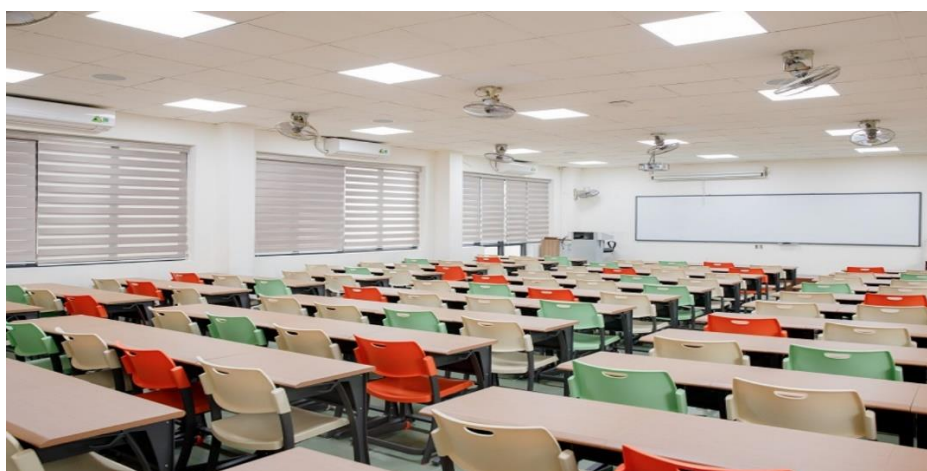


Image 2. *Modern auditorium*



Image 3. Seminar space



Image 4. Flexible furniture in learning spaces



Image 4. Musical instruments and decorations in the main lobby area

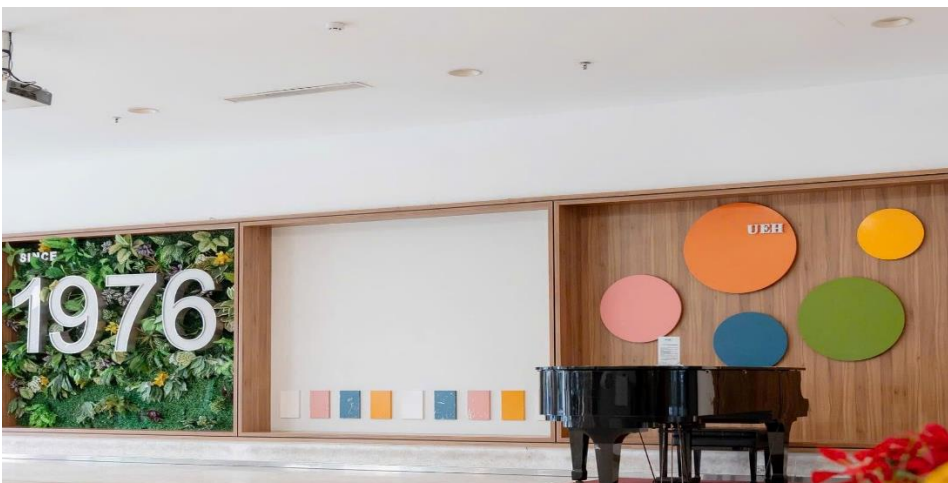


Image 5. Classical self-study space



Image 6. Motivational banners on the wall



Image 7. Greenery in learning spaces and the English zone blended with nature



Image 8. Modern self-study area



Image 9. Makerspace Area



Image 10. Regular exhibition activities in the main lobby area



Image 11. *Architecture harmoniously blending classic and modern styles, reflecting UEH's identity*



Image 12. *Modern smart library space*



Image 13. *The cafeteria area with coordinated design and colors*



Image 14. *Dynamic Café area*



Image 15. *Comfortable restroom space with soft music*

