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Student Experience Marketing: A Proposal to Humanize Higher Education Through Smart Learning Environments

[1]Arely Anabel Martínez Presas, [2]Claudia Carolina Martínez Lozano
[1] *Universidad Virtual CNCI*
[2] *Universidad Virtual CNCI*
Corresponding Author: Arely Anabel Martínez Presas

ABSTRACT: *Digital transformation has profoundly reshaped how students interact with higher education institutions, particularly within online universities where a substantial portion of the educational experience unfolds through digital platforms, academic services, communication channels, and intelligent technologies. However, educational marketing continues to be predominantly associated with student attraction, recruitment, and conversion, while the post-enrollment journey is often managed in a fragmented manner across academic, administrative, and technological units. This structural silos undermine the continuity of the institution-student relationship and underscore the urgent imperative to transition toward holistic, person-centered experience frameworks.*

This study proposes the conceptual framework of Student Experience Marketing (SEM) as an integrative strategic approach that articulates services and social marketing, experience design, educational innovation, artificial intelligence, learning analytics, and human-centered support to orchestrate the student journey across their entire lifecycle. The model is grounded in five core humanizing principles: personalization, support/mentorship, empathy, autonomy, and belonging. Within this framework, technology is conceptualized as an enabler of experiential value rather than a substitute for interpersonal connection.

Employing a conceptual and systemic design methodology complemented by descriptive, observational institutional quantitative data, the study synthesizes four distinct evidentiary sources: a GameLearn communication and support survey (n=390), a gamified experience feedback and perceived transferability registry (n=21,494), an induction course satisfaction survey (n=307), and an institutional academic risk report encompassing 132,465 student-course records across 303 courses. Findings reveal highly positive evaluations across all evaluated initiatives: 98.8% perceived applicability for GameLearn simulations, an NPS of +77.7, and an NPS of +89.6 for the induction course. Standardized courses incorporating GameLearn activities demonstrated an average failure rate of 10.8%, compared to the institutional baseline of 12.0%, alongside a moderate negative correlation between gamified experience satisfaction and failure rates (r = -0.16). These empirical findings are framed as observational associations rather than definitive causal claims.

Drawing upon these insights, the paper articulates a Student Experience Ecosystem comprising eleven developmental stages and six operational dimensions: academic mentorship, learning analytics, socio-emotional support, real-world AI-augmented projects, collaborative networks, and lifelong learning pathways. The model concludes that humanizing digital higher education does not require diminishing technological integration; rather, it demands leveraging technology strategically to deliver a more personalized, timely, meaningful, and genuinely human-centered educational experience.

KEYWORDS: *Student Experience Marketing, student experience, online higher education, Smart Learning Environments, artificial intelligence, learning analytics, humanization, student engagement, lifelong learning.*

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I. INTRODUCTION

Digital transformation has dramatically expanded and diversified the institutional touchpoints between higher education institutions and their students. In online and distance learning modalities, the institutional experience is constructed through a complex network of interactions encompassing learning management platforms, pedagogical content, faculty members, instructional tutors, advisors, virtual assistants, assessment systems, digital communities, communication channels, and student support services. Consequently, the student experience can no longer be conceptualized merely as what transpires within the virtual classroom; rather, it encompasses the entirety of touchpoints that shape the academic journey and define the long-term relationship between the student and the institution.

This shift presents a profound paradigm challenge for educational marketing. When institutional engagement with students is framed predominantly through the lens of attraction, recruitment, and enrollment

conversion, matriculation implicitly becomes the culmination of the institutional relationship—when, in reality, it represents merely the commencement of an extensive educational journey. Contemporary scholarship in university branding explicitly links student experience, perceived value, and the student consumption journey, underscoring that institutional experience constitutes an intrinsic component of university brand equity rather than a mere secondary outcome of promotional campaigns (Chen, 2022).

In parallel, empirical research on student engagement in online higher education demonstrates that student involvement encompasses interconnected behavioral, cognitive, and affective dimensions, wherein continuous mentorship and emotional support emerge as decisive determinants of learning quality in digital environments (Salas-Pilco et al., 2022). Recent studies further emphasize that fostering online engagement requires intentionally designing learning environments that facilitate active interaction, learner autonomy, operational clarity, and perceived purpose (Vermeulen & Volman, 2024).

Concurrently, Smart Learning Environments (SLE) have evolved into comprehensive frameworks integrating context-awareness, adaptivity, personalization, pedagogy, and emerging technologies (García-Tudela et al., 2021). Learning analytics enhances these environments by delivering granular intelligence on learner progress, engagement patterns, and behavioral trends; however, their practical utility remains contingent upon designing tools centered around genuine student needs and underpinned by robust data ethics (Silvola et al., 2021; Rets et al., 2021). The advent of generative artificial intelligence introduces unprecedented opportunities for hyper-personalization, formative feedback, and scaffolding, yet contemporary empirical findings also reveal mixed outcomes regarding student engagement, highlighting risks such as cognitive overreliance, diminished critical thinking, and reduced motivation (Lo et al., 2024; Baig & Yadegaridehkordi, 2024).

Against this backdrop, the present article introduces Student Experience Marketing (SEM) as an integrative strategic framework that shifts institutional focus from discrete transactions to continuous journeys. Rather than positioning SEM as a replacement for educational marketing, it reconceptualizes the marketing function within higher education institutions whose relationship with students is sustained, multichannel, and technologically mediated.

The primary objective is to develop a conceptual model of Student Experience Marketing tailored to online higher education, articulated through smart learning environments and anchored in an explicit philosophy of humanization. The guiding research question asks:

How can an online higher education institution systematically orchestrate marketing, pedagogy, intelligent technology, and human support to govern the student experience throughout their entire lifecycle?

II. THEORETICAL FRAMEWORK

1.1. From Educational Marketing to Student Experience Marketing

Marketing applied to educational organizations traces its intellectual lineage to the broadening of marketing theory toward non-profit organizations and social services (Kotler & Levy, 1969). In higher education, its evolution has progressively encompassed strategic positioning, institutional value propositions, integrated communications, stakeholder relationship management, and university brand building. Recent literature underscores that student experience, perceived value, and the consumer journey can be meaningfully integrated into institutional brand management (Chen, 2022).

Nonetheless, this paradigm can be significantly extended. Student Experience Marketing is conceptualized herein as an overarching strategic approach that synthesizes four disciplines traditionally examined in isolation: marketing, student experience, pedagogical innovation, and intelligent technology. From marketing, it incorporates value co-creation, relationship marketing, and touchpoint architecture; from student experience research, it accounts for student perceptions, emotional states, holistic needs, and behavioral patterns; from pedagogy, it affirms that every touchpoint must drive authentic learning, cognitive scaffolding, and human development; and from intelligent technology, it integrates personalization, predictive analytics, adaptive pathways, and process automation.

Accordingly, SEM is neither conceived as a promotional tactic nor as an administrative extension of student customer support. It is framed as an institution-wide philosophy to deliberately design, orchestrate, and optimize coherent experiences across pre-enrollment, active matriculation, and post-graduation trajectories.

While traditional educational marketing asks how to attract and enroll the student, Student Experience Marketing asks how to create enduring value for the person before, during, and after their educational experience.

1.2. Student Experience, Engagement, and Trajectory

The student experience is fundamentally multidimensional. It encompasses interpersonal encounters with the institution, perceived educational value, academic satisfaction, social integration, commitment to learning, and the reflexive meaning students assign to their own academic trajectory. Chen (2022*) illustrates that student experience, perceived value, and the student journey contribute fundamentally to institutional brand

architecture. In virtual education, this experiential perspective converges directly with empirical research on student engagement.

In their systematic review of online higher education across Latin America, Salas-Pilco et al. (2022) delineate behavioral, cognitive, and affective dimensions of student engagement, emphasizing that sustained emotional support, pedagogical design rigor, and seamless technological infrastructure represent indispensable prerequisites. Similarly, Vermeulen and Volman (2024) demonstrate that fostering online engagement depends fundamentally on how students perceive, experience, and actively participate within the digital learning environment.

Within the SEM framework, the student experience is consequently defined as an ongoing developmental trajectory rather than an aggregate of disconnected institutional events. Every developmental stage must sustain pedagogical continuity with preceding phases while proactively scaffolding subsequent ones, establishing institutional coherence.

1.3. Humanization as a Guiding Principle

Humanization constitutes the defining core principle that distinguishes an authentic smart learning ecosystem from a purely automated administrative architecture. In this study, humanization is operationalized through five strategic dimensions: personalization, proactive support/mentorship, empathy, learner autonomy, and belonging (Table 1).

Dimension	Operational Definition	Implications for SEM
Personalization	Tailoring the educational journey to the student's unique needs, academic progress, and individual context.	Leveraging data and intelligent technology to provide adaptive pathways, contextualized content, early alerts, and targeted support.
Support / Mentorship	Providing timely, proactive, and scaffolded guidance throughout the student lifecycle.	Combining predictive alerts, proactive communication, academic tutoring, and holistic mentorship.
Empathy	Recognizing the student as an embodied individual situated within diverse, complex socio-cultural contexts.	Designing relational touchpoints that are deeply sensitive to both academic demands and socio-emotional well-being.
Autonomy	Strengthening the learner's self-regulatory capacity and agency to steer their own learning trajectory.	Deploying AI and learning analytics as decision-support scaffolding for students rather than automated paternalistic control.
Belonging	Cultivating authentic community connections with peers, faculty, and the broader institutional fabric.	Facilitating collaborative networks, COIL initiatives, alumni communities, and meaningful institutional co-creation.

Table 1. Dimensions of SEM. Source: Author's own elaboration.

1.4. Pedagogical Foundations

SEM requires robust pedagogical foundations to prevent reducing the educational experience to superficial customer satisfaction metrics. Social constructivism posits that learning is actively constructed through social interaction and cultural mediation (Vygotsky, 1978), while instructional scaffolding emphasizes the necessity of temporary, dynamic support structures to enable learners to reach higher zones of proximal development (Wood et al., 1976).

Furthermore, constructive alignment demands strict coherence among intended learning outcomes, instructional activities, and assessment rubrics (Biggs, 1996, 2014). Experiential learning theory underscores the transformation of lived experience through iterative cycles of concrete action and abstract reflection (Kolb, 1984, 2015), whereas modern andragogy highlights the primacy of real-world problem solving, immediate applicability, and self-directed relevance for adult learners (Knowles et al., 2015). Collectively, these frameworks establish that SEM must transcend merely designing engaging touchpoints: it must intentionally craft pedagogically meaningful experiences that stimulate cognitive development.

1.5. Techno-Pedagogical Innovation

Microlearning, active learning methodologies, serious games, and interactive simulations significantly enhance digital learning when strictly subordinated to core pedagogical objectives. Microlearning facilitates

bite-sized cognitive processing, modularity, and flexible time management, whereas gamification introduces immediate formative feedback, visual progress mechanics, and contextualized problem-solving environments. Within SEM, these innovations are treated as intentional design instruments rather than technological ends in themselves.

The institutional empirical evidence examined in subsequent sections reveals that gamified learning experiences can achieve exceptionally high student satisfaction and perceived workplace transferability. The GameLearn institutional deployment serves as a representative empirical exemplar of how instructional innovation can be seamlessly integrated into holistic student experience design.

1.6. Smart Learning Environments and Intelligent Learning

Smart Learning Environments (SLEs) are characterized by the synergistic integration of technological capability and situational context to deliver adaptive, highly personalized educational experiences. García-Tudela et al. (2021) propose an operational model for organizing the core dimensions of these environments. In the present framework, the SLE serves as the essential techno-pedagogical infrastructure underpinning Student Experience Marketing.

Within the proposed model, five foundational pillars configure this infrastructure: enriched curriculum design; active pedagogical strategies; enriched assessment mechanisms; evolving educational roles (mentors, facilitators, AI agents); and intelligent technologies. Cognitive ergonomics and universal accessibility serve as transversal design criteria throughout. The objective is not to transform the educational ecosystem into an autonomous, disembodied technological engine, but rather to deploy intelligent systems to enhance pedagogical decision-making, responsiveness, and the qualitative depth of human interactions.

1.7. Learning Analytics and Artificial Intelligence

Learning analytics yields critical intelligence for deciphering student learning trajectories and orchestrating timely pedagogical interventions. Silvola et al. (2021) demonstrate that learners derive substantial value from learning analytics when it mediates transparent communication with the institution, scaffolds independent study habits, elevates self-regulated learning awareness, and enables institutions to adjust learning environments adaptively. Similarly, Rets et al. (2021) highlight the actionable value of personalized study recommendations for distance learners, emphasizing that their efficacy rests upon student trust in algorithmic systems and alignment with learner characteristics.

In their comprehensive systematic review synthesizing 159 studies on learning analytics and student engagement in higher education, Bergdahl et al. (2024) document substantial heterogeneity in how engagement is operationalized and measured. Their findings issue a vital methodological caution: platform interaction metrics and digital footprints must never be uncritically conflated with authentic learning gains or psycho-emotional well-being.

Regarding generative artificial intelligence, current scholarly evidence mandates a balanced, critical perspective. Lo et al. (2024) synthesized 72 empirical studies, identifying concurrent evidence of engagement alongside disengagement, with mixed findings regarding affective impact and highly fragmented evidence concerning deep cognitive outcomes. While Baig and Yadegaridehkordi (2024) document the rapid proliferation of ChatGPT use-cases across higher education, and Deng et al. (2024) report meta-analytic gains in academic performance and positive motivational-affective states, significant methodological constraints persist across early experimental studies. Consequently, within SEM, artificial intelligence is strictly positioned as a supportive cognitive scaffold within a broader socio-technical system, never as a surrogate for human educators, tutors, or mentors.

III. METHODOLOGY

1.1. Research Approach and Design

This study adopts a conceptual and systemic design methodology, complemented by descriptive and observational quantitative analyses of institutional data. The primary objective is not to conduct a controlled causal efficacy trial of a single program, but rather to develop a comprehensive theoretical model and evaluate preliminary institutional evidence illustrating the functional interplay between student experience components and observed academic trajectories.

The methodological design unfolds across three structured movements: (1) a comprehensive conceptual review of foundational literature spanning educational marketing, student experience, engagement frameworks, Smart Learning Environments, learning analytics, and generative AI; (2) the systemic architectural design of the Student Experience Ecosystem; and (3) empirical data triangulation across four institutional data sources.

1.2. Data Sources and Institutional Sample

Data Source	n	Constructs Measured	Analytical Purpose in Study
Communication & Support Survey	390	Perceived value of notifications, visual orientation, and proactive reminders.	Examine institutional communication as a relational support infrastructure.
GameLearn Evaluation & Transferability Registry	21,494	Overall satisfaction (0–10 scale) and perceived workplace transferability per simulator/course.	Evaluate student satisfaction and perceived practical applicability of gamified learning.
Induction Course Satisfaction Survey	307	Six Likert-scale dimensions and Net Promoter Score (NPS).	Assess onboarding effectiveness, initial institutional touchpoints, and early support perception.
Institutional At-Risk Course Academic Report	132,465 records / 303 courses	Final academic performance status: passed, failed, or withdrawn/uncompleted.	Investigate academic risk patterns and observational correlations with gamified course interventions.

Table 2. Evidentiary data sources. Source: Author's own elaboration.

As detailed in the institutional reporting protocols, the cross-analysis between student satisfaction and academic performance was conducted by standardizing official course codes and restricting the comparative subset to courses featuring GameLearn modules with a minimum threshold of 20 formal student evaluations. The Net Promoter Score (NPS) was calculated following standard conventions: percentage of Promoters (ratings 9–10) minus percentage of Detractors (ratings 0–6). Likert-scale responses from the induction survey were converted to a standardized numerical scale from 1 to 5.

1.3. Validity and Methodological Scope

The institutional datasets enable rigorous description of learner perceptions and observational associations; however, they do not establish direct counterfactual causality between experiential interventions and academic outcomes. Courses incorporating GameLearn simulators may systematically differ from standard offerings along unobserved dimensions, including instructional design variations, student sociodemographic profiles, instructor facilitation styles, grading rigor, or cohort size. Accordingly, academic performance indicators are interpreted strictly as convergent observational evidence rather than experimental proof of model efficacy.

IV. DISCUSSION

The proposed framework is structured around two mutually reinforcing axes: the Student Experience Ecosystem, which maps the chronological student trajectory, and the Operational Dimensions, which supply institutional intervention mechanisms. Both axes are governed by the foundational principle of humanization.

1.1. Axis 1: The Student Experience Ecosystem

The ecosystem is conceptualized as a continuous eleven-stage cycle (Table 3). Rather than representing a rigid linear pipeline, it depicts a dynamic experiential journey wherein students can re-engage with the institution across various touchpoints through lifelong learning, professional upskilling, peer mentorship, collaborative research, or active alumni ambassadorship.

Lifecycle Stage	Core Experiential Objective
1. First Contact	Establish institutional clarity, transparency, trust, and realistic expectations regarding the academic program.
2. Enrollment & Onboarding	Deliver seamless administrative orientation, documentation onboarding, technical onboarding, and uncertainty reduction.
3. Adaptation & Transition	Scaffold digital literacy, academic self-regulation, autonomous study habits, and platform fluency.

4. Active Learning	Provide deeply meaningful, pedagogically coherent, accessible, and workplace-applicable learning experiences.
5. Community & Belonging	Foster meaningful peer collaboration, faculty interaction, co-curricular engagement, and social belonging.
6. Scaffolded Support	Proactively identify academic or psycho-emotional vulnerability and activate multi-tiered human support systems.
7. Academic Success	Promote steady academic progression, rigorous competency mastery, credit completion, and institutional persistence.
8. Professional Employability	Bridge theoretical knowledge with real-world competencies, professional portfolios, industry capstones, and networking.
9. Alumni Transition	Sustain continuous institutional affiliation, alumni networking, and mutual community engagement beyond formal graduation.
10. Institutional Ambassador	Empower graduates to serve as mentors, institutional advocates, brand co-creators, and regional leaders.
11. Upskilling / Lifelong Learning	Transform the university affiliation into a lifelong learning partnership offering continuous upskilling and reskilling.

Table 3. Stages of the student lifecycle trajectory. Source: Author's own elaboration.

1.2. Axis 2: Six Operational Dimensions

Operational Dimension	Institutional Function	Implementation Examples
Academic Mentorship & Support	Deliver personalized pedagogical and developmental guidance throughout the student journey.	Proactive academic tutoring, peer mentoring, longitudinal advising, and academic intervention referral networks.
Learning Analytics & LMS	Translate digital telemetry and engagement footprints into actionable signals for institutional interventions.	Blackboard Ultra analytics, real-time instructor dashboards, automated early-warning triggers, and progress tracking.
Socio-Emotional Accompaniment	Address psycho-emotional well-being and life stressors impacting academic persistence.	Counseling services, empathetic listening protocols, mental health referral channels, and empathetic communications.
Real-World Projects & AI	Connect disciplinary competencies with authentic professional challenges using advanced digital tools.	Gamified simulations, industry capstone challenges, authentic case studies, and generative AI as a cognitive partner.
Collaborative Networks & COIL	Expand social, intercultural, and community-based collaborative learning paradigms.	Collaborative Online International Learning (COIL), global virtual exchange, student interest chapters, and peer circles.
Continuing Education & Lifelong Learning	Extend institutional value co-creation into post-graduation upskilling, reskilling, and credentialing.	Stackable micro-credentials, executive certificates, modular short courses, and personalized upskilling pathways.

Table 4. Operational dimensions of SEM. Source: Author's own elaboration.

1.3. Transversal Principle: Communication as Support Infrastructure

Within the SEM framework, institutional communication ceases to function merely as an administrative or promotional broadcasting mechanism. Instead, it becomes an integral relational support infrastructure that renders the educational experience transparent, clarifies learning milestones, reminds students of critical deliverables, activates support resources, and reinforces longitudinal engagement. Every faculty communication, email, push notification, advisor meeting, LMS banner, and AI conversational agent represents an institutional touchpoint that conveys institutional values and organizational care.

This conceptualization is directly corroborated by the GameLearn communication survey findings: 90.3% of surveyed learners rated visual tracking and reminder notifications as critically important; 85.6% reported that visual infographics helped them clarify expectations and workflows; and 92.1% explicitly requested to continue receiving proactive reminders regarding deadlines and milestones. These metrics illustrate that proactive, structured communication fulfills a fundamental scaffolding function rather than merely transmitting transactional data.

1.4. Intelligent Technology in Service of the Human Experience

The model posits an essential relationship of complementarity between technological intelligence and human discernment. Intelligent technologies dramatically expand organizational capacity by identifying systemic engagement patterns, hyper-personalizing message delivery, generating predictive alerts, and providing instantaneous administrative responses. Conversely, human educators and advisors provide contextual empathy, moral judgment, pedagogical reasoning, authentic trust, and nuanced intervention in complex life situations.
Technology must amplify the institution's capacity for human connection, never serve as an excuse to abdicate it.

1.5. Conceptual Propositions

1. Sustaining experiential continuity across the entire student lifecycle fosters higher institutional trust and commitment compared to fragmented, departmentally siloed touchpoint management.
2. The deliberate integration of intelligent technology with human-mediated mentorship creates more effective conditions for personalized, humanized education than unmediated automated self-service architectures.
3. Contextualized deployment of learning analytics enhances the timely detection of academic vulnerability and triggers effective interventions, provided data governance embodies transparency, algorithmic fairness, and learner autonomy.
4. Expanding the institutional value proposition into professional employability, post-graduation transition, and stackable lifelong learning transforms higher education from a finite transactional degree program into an enduring educational partnership.

V. FINDINGS

1.1. The Student Experience is Quantitatively Measurable

The GameLearn institutional evaluation registry constitutes the largest empirical dataset examined, encompassing 21,494 student evaluations across 47 serious business games and simulations. Across this extensive sample, the mean overall satisfaction rating reached 9.18 out of 10, with 98.8% of respondents affirming the direct applicability of the competencies mastered in the simulation to professional practice. The aggregated Net Promoter Score (NPS) attained +77.7. These findings substantiate that the student experience can be systematically quantified through rigorous perceptual, utility, and advocacy metrics.

This finding is of paramount importance for SEM: it transitions the student experience from an elusive, subjective abstraction into an observable, operational construct that can be tracked, benchmarked, and correlated with formal academic retention and success indicators. However, student satisfaction must not be conflated with cognitive learning mastery; rather, it constitutes an experiential diagnostic indicator that must be triangulated with rigorous academic performance data.

1.2. First Contact and Onboarding as Strategic Keystones

The institutional induction course survey (n=307) yielded an NPS of +89.6, with 98.7% of newly matriculated students reporting that they felt thoroughly prepared to commence regular academic coursework. Across the six evaluated dimensions (measured on a 1–5 scale), Academic Advisors and Virtual Tutors scored highest (4.27/5), followed closely by Holistic Experience (4.23), Course Content & Platform Usability (4.20), AI & Personalization Tools (4.09), and the Virtual Conversational Assistant (3.98).

This evaluation hierarchy indicates that relational human interaction remains the most heavily valued asset even within highly digitalized onboarding environments. Qualitative sentiment analysis of open-ended feedback reinforced this conclusion: personal tutor responsiveness and procedural clarity were consistently cited as decisive satisfiers, with multiple students petitioning for identical individualized mentorship throughout their degree programs. Consequently, institutional onboarding must be recognized as the foundational keystone of the institutional relationship—designed not as an isolated administrative hurdle, but as the initial touchpoint of an enduring continuum.

1.3. Communication as Relational Support

Descriptive analysis of the communication survey reveals that 90.3% of students consider tracking announcements and graphical guides for GameLearn crucial; 85.6% confirm that instructional infographics

significantly clarified navigation and requirements; and 92.1% express an explicit desire to receive proactive milestone reminders. These empirical data corroborate the theoretical argument that communication serves as an indispensable support architecture when crafted with clarity, timeliness, and actionable guidance.

1.4. Student Experience and Academic Performance: Observational Evidence

The institutional academic risk report encompasses 132,465 student-course academic records across 303 courses. Within the subset of 28 standardized courses that systematically integrated GameLearn simulations (meeting the n >= 20 evaluation threshold), the average course failure rate was 10.8%, compared to the general institutional benchmark of 12.0%.

Furthermore, bivariate analysis revealed a moderate negative correlation (r = -0.16) between course-level mean GameLearn satisfaction ratings and course failure rates. Descriptively, academic courses reporting higher learner satisfaction with experiential components exhibited systematically lower failure rates. Nonetheless, given the observational cross-sectional nature of the data, causal attribution cannot be asserted.

The data substantiate an associative relationship rather than direct causality: engaging experiential learning accompanies and supports enhanced academic persistence, but operates as one component within a multi-causal academic ecosystem.

1.5. Identification of Critical Intervention Checkpoints

Granular risk analysis reveals a pronounced concentration of academic failure within introductory curriculum stages and the High School (Bachillerato) program. Multiple Module 1 foundational subjects exhibited failure rates exceeding 30%, with certain high school subjects reaching failure rates of 40% or higher. These disparate patterns indicate that the student experience cannot be managed via a generic, one-size-fits-all approach; it necessitates differentiated, stage-specific interventions aligned with learner maturity and cohort vulnerabilities.

The case of Administration I illustrates this dynamic: despite achieving an exceptionally high GameLearn satisfaction rating of 8.85/10, the course registered an aggregate failure rate of 32.8%. This divergence reinforces the principle that experiential gamification cannot single-handedly neutralize structural transition challenges or foundational academic deficits. SEM must integrate rigorous instructional scaffolding, timely academic remediation, learning analytics monitoring, and proactive counseling, especially during high-friction transitional phases.

The empirical findings and theoretical framework substantiate Student Experience Marketing as an institutional orchestrating paradigm. The primary intellectual contribution of SEM does not lie in introducing novel technological software, nor in transplanting corporate customer experience (CX) vernacular uncritically into academia. Rather, it establishes the holistic student journey as the unifying organizational construct around which educational marketing, instructional pedagogy, intelligent technology, and human student services must coalesce.

This conceptualization converges with contemporary scholarship that links student experience, institutional value co-creation, and university brand equity (Chen, 2022*), yet significantly extends this framework by integrating learning analytics, generative AI, community scaffolding, professional employability, and lifelong upskilling. Within SEM, the student is never reduced to a transactional consumer in an educational marketplace, but is embraced as an autonomous human partner within an enduring academic relationship.

The second major contribution centers on the imperative of humanization. Institutional data clearly demonstrate that while students embrace and appreciate sophisticated technological tools, human accompaniment remains the paramount driver of institutional trust and satisfaction. This empirical reality aligns with contemporary learning analytics and educational AI literature, which warns that algorithmic systems must be purposefully designed around human agency, ethical transparency, student trust, and emotional safety (Silvola et al., 2021; Rets et al., 2021).

The third contribution pertains to contextualized intervention. Identifying acute vulnerability clusters within initial curricular modules demonstrates that uniform institutional experiences are structurally inadequate. A genuinely smart learning ecosystem must proactively detect critical inflection points and deploy multi-tiered, differentiated interventions. Consequently, personalization transcends algorithmic content recommendations: it entails dynamically calibrating institutional communication, tutoring intensity, and socio-emotional support to the precariousness of each learner's trajectory.

Finally, the model transforms the temporal boundaries of higher education. Graduation ceases to represent an institutional terminal point; rather, it marks a pivotal transition into collaborative professional networks, alumni ambassadorship, and stackable lifelong upskilling and reskilling.

Implications for Institutional Management

- Map Institutional Touchpoints: Construct an institution-wide matrix of student touchpoints and departmental accountabilities across the eleven stages of the Student Experience Ecosystem.
- Integrate Experiential and Academic Metrics: Synthesize experience telemetry (NPS, satisfaction, perceived utility) with hard academic indicators (retention, course completion, credit velocity) to achieve unified diagnostic oversight.
- Actionable Analytics Without Surveillance: Leverage LMS telemetry and predictive analytics to detect early signs of disengagement and trigger timely human interventions, avoiding punitive algorithmic surveillance.
- Prioritize High-Risk Curricular Transitions: Implement differentiated, intensive onboarding and academic scaffolding for high-risk gateway courses, particularly Module 1 and high school programs.
- Sustain Human-in-the-Loop Architectures: Anchor human mentorship as an irreplaceable structural pillar, deploying artificial intelligence to automate administrative friction and amplify human responsiveness.
- Elevate Communication to Relational Infrastructure: Architect institutional communications into a coordinated support system characterized by clarity, visual scaffolding, timeliness, and cross-departmental alignment.
- Embed Authentic, Applied Learning: Systematically embed gamified simulations, industry capstones, and ethical generative AI tools directly aligned with assessed learning outcomes.
- Foster Collaborative and Global Networks: Scale Collaborative Online International Learning (COIL), virtual exchanges, and peer learning communities to cultivate social belonging and intercultural fluency.
- Formalize Lifelong Learning Pathways: Structure modular, stackable micro-credentials and executive reskilling routes to maintain lifelong institutional relevance for graduates.
- Deploy Comprehensive Experience Dashboards: Establish unified institutional dashboards to monitor lifecycle performance continuously and inform data-driven strategic interventions.

Limitations and Future Research Directions

This investigation acknowledges several methodological limitations. First, the institutional data originate from distinct operational assessment protocols rather than a unified psychometric instrument engineered specifically to validate the SEM construct. Second, the cross-sectional analysis linking gamified course evaluations with academic failure rates remains strictly observational across 28 standardized courses, precluding counterfactual causal inference. Third, several metrics rely on self-reported perception and advocacy scales, which may not directly correlate with longitudinal learning mastery or degree attainment.

These limitations delineate fruitful avenues for future research. Subsequent scholarship should operationalize and psychometrically validate a dedicated Student Experience Marketing scale, investigate structural relationships between SEM dimensions and student retention via structural equation modeling, implement quasi-experimental longitudinal designs tracking multi-cohort trajectories, and examine student experiences with emerging agentic AI through the lenses of trust, autonomy, algorithmic equity, and cognitive interdependence.

VI. CONCLUSION

The digital transformation of higher education necessitates transcending an obsolete paradigm that restricts the student experience to learning platform navigation or administrative customer service. In online universities, the educational experience is holistically co-created through an intricate socio-technical network of pedagogical, technological, communicative, and interpersonal touchpoints that accompany learners from initial prospective engagement through long-term professional development.

Grounded in this perspective, this study presents Student Experience Marketing (SEM) as an integrative strategic framework that positions the human person at the epicenter of university governance. Its chief conceptual contribution lies in expanding the mandate of educational marketing from an upstream recruitment and conversion function into an enduring institutional strategy for value co-creation, longitudinal mentorship, and relationship building across the complete student lifecycle.

The framework articulates an eleven-stage Student Experience Ecosystem supported by six operational dimensions designed to preserve experiential continuity: academic mentorship, learning analytics, socio-emotional support, real-world AI-augmented projects, collaborative networks, and lifelong learning pathways.

Institutional empirical evidence offers initial validation for this model. Gamified learning environments achieved 98.8% perceived workplace applicability and an NPS of +77.7, while the structured induction course reached an NPS of +89.6 and a 98.7% readiness perception among incoming students. Courses integrating GameLearn simulations exhibited lower average failure rates than the institutional baseline and demonstrated a

negative correlation between satisfaction and academic failure. While observational, these findings confirm that intentional experiential design positively accompanies learner persistence.

A paramount conclusion of this research is the enduring primacy of human connection within highly digitalized educational environments. The integration of artificial intelligence must never be pursued under a logic of labor substitution, but under an ethos of human-AI complementarity: intelligent systems augment institutional capacity for rapid pattern recognition and adaptive customization, while human mentors supply empathy, contextual ethics, critical discernment, and emotional safety.

The universities of the future will be judged not merely by the sophistication of their digital infrastructure, but by the qualitative depth, coherence, and transformative meaning of the experiences they co-create. Every faculty member, communication, advisory interaction, learning platform, and intelligent agent constitutes a living touchpoint that embodies institutional values.

Humanizing higher education through smart learning environments does not entail retreating from technology; it demands placing technology uncompromisingly in service of the person. Student Experience Marketing thus calls for an institutional paradigm shift: transitioning from managing students as administrative units to orchestrating transformative experiences for autonomous persons who learn, work, create, and build community throughout their lives.

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APPENDIX 1. INSTITUTIONAL EVIDENCE MATRIX UTILIZED IN THE STUDY

This matrix synthesizes empirical telemetry extracted from the Integrated Report on Efficiency, Satisfaction, and Impact of the Student Experience (September 2026), utilized as institutional baseline evidence for model conceptualization.

Indicator	Observed Result	Analytical Interpretation
Perceived GameLearn Applicability	98.8%	High perceived transferability of learned competencies to real professional environments.
Mean GameLearn Evaluation	9.18 / 10	Outstanding positive evaluation of the gamified

Rating		experiential simulation.
GameLearn Net Promoter Score (NPS)	+77.7	High level of voluntary advocacy and recommendation reported by participants.
Induction Net Promoter Score (NPS)	+89.6	Exceptional advocacy regarding structured first contact and early onboarding.
Perception of Preparedness for Coursework	98.7%	Overwhelming perception of preparedness and readiness upon completing onboarding.
Perceived Importance of Tracking Notices	90.3%	High recognition of proactive notifications as critical relational guidance.
Visual Guidance & Workflow Comprehension	85.6%	Affirmation of visual infographics and clear layouts in scaffolding tasks.
Desire for Proactive Milestone Reminders	92.1%	Explicit validation of proactive tracking as meaningful academic support.
Institutional Benchmark Failure Rate	12.0%	Comparative baseline failure rate across all evaluated institutional courses.
Failure Rate in Standardized GameLearn Courses	10.8%	Descriptive observational association with lower overall course attrition/failure.
Correlation Between Satisfaction and Failure Rate	r = -0.16	Moderate negative correlation; indicative of association, not counterfactual causality.

Table A1. Institutional Evidence Matrix. Source: Author's own elaboration.