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Experiential learning: Designing differentiation strategies via gamification

Aprendizaje experiencial: diseño de estrategias de diferenciación mediante la gamificación

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ABSTRACT

This paper addresses the limitations of deterministic teaching-learning models in higher education by proposing a learning game, adaptable approach to strategic management courses that foster active student engagement and comprehensive development. This new methodology might be beneficial to include the applicability of this in both undergraduate and master's courses. Grounded in the kinesthetic learning style and utilizing gamification, learning game encourages learning through action and direct experience. It is specifically designed based on Zimmerman's (2000) cyclical model of self-regulated learning (SRL), which encompasses the forethought, performance, and self-reflection phases. The pedagogical aim is to reinforce students' understanding of formulating differentiation leadership competitive strategies. Key objectives include enabling students to apply sources of competitive advantage for differentiation, discern the advantages and risks of this strategy, and elucidate its successful implementation prerequisites. Furthermore, the learning game aims to cultivate transversal competencies such as creativity, communication, negotiation, teamwork, and leadership skills within the university setting, shifting away from passive learning towards active participation and potential agency for social change.

Keywords. kinesthetic learning style, gamification, differentiation strategies, model of self-regulated learning (SRL), experiential learning

RESUMEN

Este artículo aborda las limitaciones de los modelos de enseñanza-aprendizaje deterministas en la educación superior, proponiendo un enfoque dinámico y adaptable para los cursos de gestión estratégica que fomenta la participación activa del estudiante y su desarrollo integral. Esta nueva metodología podría ser beneficiosa para incluir su aplicabilidad tanto en cursos de grado como de máster. Basada en el estilo de aprendizaje kinestésico y utilizando la gamificación, esta dinámica fomenta el aprendizaje a través de la acción y la experiencia directa. Está diseñada específicamente con base en el modelo cíclico de aprendizaje autorregulado (ARS) de Zimmerman (2000), que abarca las fases de previsión, rendimiento y autorreflexión. El objetivo pedagógico es reforzar la comprensión de los estudiantes sobre la formulación de estrategias competitivas de liderazgo diferenciador. Los objetivos clave incluyen capacitar a los estudiantes para aplicar las fuentes de ventaja competitiva para la diferenciación, discernir las ventajas y los riesgos de esta estrategia y dilucidar los requisitos previos para su implementación exitosa. Además, la dinámica busca cultivar competencias transversales como la creatividad, la comunicación, la negociación, el trabajo en equipo y las habilidades de liderazgo en el entorno universitario, pasando del aprendizaje pasivo a la participación activa y el potencial de agencia para el cambio social.

Palabras clave. *estilo de aprendizaje kinestésico, gamificación, estrategias de diferenciación, modelo de aprendizaje autorregulado (SRL), aprendizaje experiencial*

INTRODUCTION

Traditional teaching-learning paradigms in a university context often operate under deterministic models, whose limitations have been extensively documented (Walther, 2024). These reductionist frameworks understand the teaching-learning process as a linear progression, failing to adequately capture the intricate nature of university student cognition and behavior (Walther, 2024). Conversely, the teaching-learning process in a university setting is a multifaceted phenomenon influenced by diverse-nature interconnected factors, encompassing social, cultural, and contextual influences (Al-Bayati & Mizban, 2022). The teaching-learning process should be understood as a process of critical inquiry and transformative action, where students are not passive recipients but active participants in their own learning and potential agents of social change emanating from the university setting (Walther, 2024).

Consequently, instructors should adopt a holistic understanding of the teaching-learning process that embraces the varied needs and perspectives of the university students. In these lines, university students possess an intrinsic drive to engage in activities that foster their autonomy, competence, and relatedness (Ryan & Deci, 2020). Recognizing this, instructors should design learning experiences that afford students a sense of autonomy, mastery, and purpose, thereby cultivating intrinsic motivation and empowering them to make meaningful choices and lead their learning (Walther, 2024).

Therefore, the teaching-learning process in university education should be a dynamic procedure through which knowledge, skills, principles, and even emotions occur, thereby fostering the comprehensive development of students (Hussain, 2017). This transmission process relies on diverse methodologies, techniques, teaching strategies, and other integral components (Ogunleye, et al., 2021). In this university context, teaching methodologies serve as structured frameworks that

guide the interaction between instructors and students to achieve relevant, predefined learning objectives (Daniel et al., 2024). Effective methodologies in university settings should be characterized by adaptability and dynamism, integrating theoretical and practical elements while cultivating the university student's capacity to address problems relevant to their field of study (Chen et al., 2021; Ore, David, & Alabi, 2025).

Within the educational setting, four primary learning modalities are commonly identified: visual, auditory, reading/writing (VARK), and kinesthetic (VAK) (Fleming, 2011). The kinesthetic learning style is principally grounded in action, emphasizing the students' active involvement through physical engagement, manipulation, and direct experience. Consequently, university students acquire knowledge through active participation, iterative practice, and interaction with their physical environment (Hussain, 2017). From this perspective, this modality facilitates learning through a more dynamic engagement of the university student, incorporating practical exercises, experimentation, role-playing, and similar experiential activities (Suárez-Lantarón, 2023).

In these lines, gamification emerges as a potential solution to contemporary university educational challenges, necessitating a changeover from deterministic learning models towards models adapted to the current complexity in higher education. Gamification has gained considerable recognition as a valuable pedagogical tool. This practice entails game-design elements in non-game settings (Deterding et al., 2011). Although frequently implemented through engaging digital interfaces, it is also effective when carried up through analog, non-digital games (Chen et al., 2021; Mercier & Lubart, 2023; Nadi-Ravandi & Batooli, 2022). Whether digital or physical, educational games foster improved learning by capturing students' focus and boosting their drive (Boyle et al., 2016).

Drawing from these foundations of the application of educational games in the university learning context, we present in this paper a learning game adaptable to any undergraduate or master's level course addressing strategic management content. This learning game has been implemented within the Strategic Management course, taught in the third year of the Bachelor's Degree in Business Administration at the Economics and Business Faculty of the University of Vigo (Spain). The proposed learning game was specifically designed incorporating the three interconnected phases of Zimmerman's (2000) cyclical model of self-regulated learning (SRL), namely: forethought, performance, and self-reflection.

This learning game is designed to reinforce student comprehension of formulating competitive strategies centered on differentiation leadership. Specifically, its objectives are to reach the students to apply sources of competitive advantage to achieve leadership in differentiation, discern the advantages and potential risks associated with a differentiation leadership strategy, and elucidate the prerequisites for the successful implementation of this kind of competitive strategy. Additionally, since "*the differentiation potential of any product or service is only limited by the boundaries of imagination*" (Grant, 2014, p. 249), learning game aims to cultivate transversal competencies encompassing creativity and the enhancement of communication, negotiation, teamwork, and leadership proficiencies.

LITERATURE REVIEW

Framing the pedagogical methodology

Active learning is generally defined as any teaching method that involves students in the learning process by having them do activities and think about what they are doing (Bonwell & Eison, 1991). Unlike traditional passive lecturing, active learning engages students in activities and discussions, with the instructor acting as a facilitator rather than simply delivering knowledge (Walther, 2024). Its theoretical basis comes from constructivist learning theories, which propose that students actively build knowledge, focusing on deep understanding rather than just memorizing facts (Palomino, 2021). In general terms, active learning definitions often coincide in their emphasis

on crucial features like engagement, group work, and the application or problem-solving aspect of knowledge (Doolittle et al., 2023).

Research consistently demonstrates that active learning is a superior pedagogical approach compared to content-centered approaches like traditional lectures, yielding significant positive impacts on student outcomes (Hartikainen et al., 2019). Active learning enhances cognitive outcomes since it fosters higher-order thinking—such as analysis, evaluation, and creativity—by delegating lower-order cognitive tasks (e.g., information gathering) to pre-class work (El-Thalji, 2025). Furthermore, it contributes significantly to the acquisition of transversal skills, including teamwork, problem-solving, critical thinking, and leadership (Hayter & Parker 2019). Finally, active learning provides instructors with real-time insight into student comprehension, enabling them to address individual misunderstandings and tailor instruction flexibly (Otegui & Raimondi, 2024).

Despite these benefits, active learning deployment in higher education faces substantial difficulties for its implementation (Martella et al., 2021). From the instructors' perspective, many academics view active learning with distrust, often favoring the traditional lecture as the primary teaching mechanism (Murillo-Zamorano et al., 2021). Most of these instructors consider it a loss of time and a hindrance to content coverage (Kalms 2019). Additionally, insufficient training or knowledge in implementing active methods can fail to yield expected results and may even demotivate students (Hartikainen et al., 2019). Furthermore, the limited time available for content delivery, the difficulty of implementation in large classes, and the lack of adequate resources, materials, and support equipment may, in most cases, hinder its implementation (El-Thalji, 2025). From the students' perspective, their active role demands greater commitment and workload. In fact, active learning often necessitates pre-class study and requires greater cognitive effort for high-order thinking, which can challenge students accustomed to a passive learning role (Clark & Post, 2021).

Due to its inherent ability to support and enhance active learning, the integration of gamification has emerged as a widespread pedagogical approach (Bai et al., 2020). Its use in higher education has therefore risen significantly in the last decade (Bai et al., 2020), leading to a rapid expansion of research in this area.

The concept of gamification is predominantly framed by the widely accepted definition proposed by Deterding et al. (2011, p.10), as "the use of game design elements in non-game contexts." While gamification is generally supported by interactive digital platforms (Nadi-Ravandi & Batooli, 2022), the efficacy of non-digital games is also supported by various authors (Chen et al., 2021; Mercier and Lubart, 2023). Gamification utilizes components of games in real-world situations (Dahalan et al., 2024). Regarding specific design elements, the classical gamification methodology incorporates the PBL triad: Points, Badges, and Leaderboards (Duran et al., 2025). More detailed research on game mechanics reveals that challenges, feedback, rewards and progression are the most employed mechanics (Alhammad & Moreno, 2018). Among them, progression is the most prevalent game mechanic (Alhammad & Moreno, 2018).

The implementation of gamification in educational and learning contexts can be strategically designed to structure and reinforce student behavior, incorporating the three main interconnected phases of Zimmerman's (2000) cyclical model of self-regulated learning (SRL), namely: forethought, performance, and self-reflection. The forethought phase involves students' initial engagement with a task, where they analyze its demands, establish learning goals, and plan their strategies. This phase is significantly influenced by their self-motivational beliefs and their understanding of the assessment criteria (Zimmerman & Moylan, 2009). Motivation, driven by factors such as self-confidence in their abilities, interest in the task, and the perceived value of success, is a key element during this initial stage (Zimmerman & Moylan, 2009). The performance phase is characterized by students actively implementing their planned strategies while simultaneously monitoring their progress through self-observation and self-control (Zimmerman & Moylan, 2009). Effective use of learning strategies, coupled with metacognitive awareness and self-

management skills like time organization and help-seeking, are crucial here. Finally, the self-reflection phase occurs after task completion, where students evaluate their performance against their initial goals and the established criteria. This involves self-judgment, where they attribute the causes of their successes or failures (Zimmerman, 2000), and self-reaction, which encompasses their emotional responses and subsequent decisions about future learning approaches, either adapting effective strategies or potentially adopting avoidance behaviors (Zimmerman, 2000).

The introduction and growing expansion of gamification in educational and learning contexts stem from its support for several benefits to both students and instructors (Bai et al., 2020). These include the positive impact on increased students' motivation and engagement and the development of their autonomous learning and critical thinking skills (Zainuddin et al., 2020). Key skills facilitated by gamification are teamwork, practical training, leadership, oral communication, the ability to learn and act in new situations, and the ability to generate new ideas and solutions (Hayter & Parker 2019). Consequently, gamification contributes to the improvement of students' performance and learning outcomes (Bai et al. 2020).

Despite these benefits, the scholarly literature contains inconsistent findings concerning gains in student learning and motivation. Several studies caution that poorly conceived designs can even lead to negative outcomes (Bai et al., 2020). This lack of consensus stems from the highly diverse nature of higher education, where a wide variety of student profiles, needs, and learning styles exist. This diversity complicates the gamification process, increasing the risk of students' demotivation (Rodrigues et al., 2021).

Framing the academic discipline context

The Bachelor's Degree in Business Administration aims to provide students with a comprehensive education tailored towards their future professional pursuits. This involves nurturing a proactive and critical approach to change and the business environment, highlighting the inherent dynamism of the business world. More specifically and aligning with the core principles outlined in the White Book on Economics and Business by the Spanish National Agency for Quality Assessment and Accreditation, this degree program pursues a threefold objective. Firstly, it empowers graduating students to critically analyze the organizations' internal management structures, and the evolving external context that shapes their operations. Secondly, it focuses on developing competent professionals who can undertake managerial, advisory, and evaluative roles within productive organizations. Finally, it aims to integrate acquired skills with personal growth to positively contribute to society. These professional competencies can be applied across the organizational spectrum or within specific functional departments such as production, human resources, finance, marketing, investment, administration, or accounting. Therefore, graduates should demonstrate proficiency in recognizing and anticipating opportunities, allocating resources effectively, structuring information logically, selecting and motivating personnel, making informed decisions, achieving defined objectives, and evaluating outcomes.

Given the expected professional competence of Bachelor's Degree in Business Administration graduates, it is of paramount importance that their education should include the analysis of factors influencing decision-making within organizations. In this context, Strategic Management emerges as the field of knowledge dedicated to analyzing the determinants of decision-making within a company. Its relevance and necessity stem from the crucial role businesses play in the economic and social development of an economy.

Despite Strategic Management being a relatively recent discipline, its evolution has been remarkably rapid. The field of Strategic Management fundamentally builds upon the seminal works of Chandler (1962), Ansoff (1965), and Learned et al. (1969). However, these early contributions placed significant emphasis on the internal aspects of the firm, primarily focusing on identifying the best practices for companies' success. Subsequently, the scope of Strategic Management broadened significantly due to the influence of the structure- conduct- performance (SCP)

paradigm, also known as the Bain/Mason paradigm (Bain, 1956, 1968; Mason, 1939), originating from the Industrial Organization Economics approach. This analytical framework highlighted the relationships between market structure, firm conduct, and market outcomes. Porter's (1980, 1985) Five Forces model embodies this logic, positing that a company's performance is primarily a function of the industry environment in which it competes.

Therefore, Strategic Management has been enriched by insights from multiple disciplines. So, the syllabus for this subject systematically covers each stage of the strategic management process, including external and internal factors influencing strategic decisions. This process begins with the achievable and realistic objectives that the company aims to attain within a predetermined timeframe. Before formulating a strategy to achieve these objectives, the second stage involves conducting a strategic analysis, encompassing a general and industry-specific environmental analysis to identify opportunities and threats and an internal analysis to highlight the organization's strengths and weaknesses. This information is synthesized in a SWOT matrix, from which sustainable competitive advantages should be derived as the foundation for the company's competitive and corporate strategies. Following strategy formulation, the subsequent stage involves its implementation or execution. At the end of the designated period, the organization must monitor the level of objective attainment established at the process's outset. Divergences from these objectives provide valuable information for the feedback loop, which entails applying corrections to earlier stages where the cause of the deviation has been identified.

Addressing the strategic design phase, the syllabus focuses on Porter's (1980, 1985) generic competitive strategies, specifically cost leadership and differentiation leadership. This provides students with the conceptual basis for developing a range of strategic approaches. In particular, the competitive strategy of differentiation leadership aims to produce and/or sell products possessing characteristics that consumers perceive as unique and/or exclusive, enabling a premium pricing strategy. The target consumers for differentiation leaders prioritize added value over price in their purchasing decision-making process. Achieving a position of differentiation leadership thus requires the development of substantial sources of competitive advantage in differentiation.

Leveraging the aforementioned theoretical framework, this proposed learning game aims to operationalize core concepts concerning the sources of competitive advantage inherent in differentiation leadership strategies. These advantages can be derived either via the product, through the strategic application of the marketing mix elements, or from unique attributes within the organization. Regarding sources of competitive advantage stemming from the product, a central element is the product, which can be differentiated by its intrinsic attributes, such as superior quality or technological innovation, as well as its extrinsic characteristics, including brand image, packaging design, product portfolio, and the psychological or sociological associations it evokes among consumers (Díaz Iglesias, 2022). An additional avenue for product-centric differentiation lies in the distribution channels. Promotional activities, encompassing advertising and other communicative strategies, also serve as a mechanism for differentiation by effectively positioning the product within the target market. Finally, a premium pricing strategy can contribute to differentiation by signaling exclusivity or superior product quality. Beyond factors directly related to the product, competitive advantage through differentiation can also be cultivated at the organizational level, differentiation is not just about offering a different product, but also about understanding the relationships between companies and their customers (Grant, 2014). Therefore, these advantages encompass the firm's business model; its distinctive approaches to customer relationship; its core ethical principles, values or social responsibility (Kramer & Porter, 2006), organizational identity, operational style, and corporate culture; and its reputation, prestige and legitimacy (Díez Martín, Blanco González, & Prado Román, 2010).

Consequently, the primary objective motivating students in the design and development of this learning game is to achieve the maximum degree of differentiation valued by the target audience,

starting from a basic product. This differentiation should be achieved through the application of sources of competitive advantage in differentiation, as theoretically explored in the learning module on the Differentiation Leadership Competitive Strategy.

DESCRIPTION OF THE LEARNING GAME

The learning game proposed in this paper employs gamification to cultivate student autonomy, enhance their sense of mastery, and foster intrinsic motivation, thereby promoting active engagement in the teaching-learning process. In these lines, this learning game integrates game-design elements into non-game settings, effectively implemented through analog games. This approach is designed upon the kinesthetic learning style focused on active participation, iterative practice, and interaction with their physical environment.

Inspired by the principles of applying educational games within the university learning environment, this paper introduces a flexible learning game suitable for both undergraduate and master's level strategic management courses. This learning game has been implemented with third-year Business Administration students enrolled in the Strategic Management course at the Faculty of Economics and Business Sciences of the University of Vigo, Spain. The proposed learning game was initially introduced in the 2017/18 academic course and has undergone iterative refinements based on observations from the instructors who designed and implemented it and the feedback from the students. The version presented in this article has been utilized for the past two academic years without further modifications, leading us to consider it the optimal iteration.

The proposed learning game, designed for a practical class in Strategic Management, aims to cultivate students' competencies in formulating differentiation leadership strategies. To achieve these learning outcomes, learning game employs a team-based approach wherein each group is required to present a differentiated product to their peers, who embody the role of potential consumers. This differentiated product is developed by each team from a basic product suggested by the professor. Their core task is to significantly differentiate this base product by strategically leveraging a substantial array of competitive advantage sources pertinent to differentiation leaders, as detailed within the module on differentiation leadership competitive strategies. Operating as simulated competing firms, the teams engage in a competitive scenario, vying for a reward allocated to the group achieving the highest sales volume among the student-consumers and accruing the most points based on an evaluation of their presentation's effectiveness.

In designing the learning game, we strategically incorporated the three interconnected phases of Zimmerman's (2000) cyclical model of self-regulated learning (SRL)—forethought, performance, and self-reflection—as the framework to structure and reinforce student behavior.

Forethought phase. Pre-practice work, motivational strategies, formative assessment, and feedback on autonomous work.

In a preparatory session preceding the public launch of their differentiated products, each student team, assuming the role of a company, is assigned a basic product for transformation. For this assignment process, the professor follows a lottery-based product allocation, writing the initial letter of various potential basic products (e.g., C for cap, B for backpack) on the board. Each team then selects a letter, thereby determining their designated basic product. Further, to foster a competitive environment, the professor manages this selection to guarantee that a minimum of two teams work on the same initial product, thus establishing direct competition. Subsequently, each team receives a poster displaying an image of the basic product they are tasked with differentiating (Image 1).

Image 1. Basic products

Cap	Water	Backpack	Umbrella

Source: Authors' own work

Following basic product assignment, each team will conduct initial market research to determine the maximum price potential individual consumers (classmates from other teams with different assigned products) are willing to pay for the undifferentiated item. Additionally, the surveying team members will identify key quality attributes for which these potential consumers would pay a premium. This data on price sensitivity and valued attributes must be recorded for later analysis and strategic decision-making. This initial research phase provides crucial insights into consumer preferences and price points, informing the teams' differentiation and pricing strategies for their enhanced products.

From this point, students can analyze the task, set objectives, and plan strategies, guided by the task's assessment criteria. Since students' goal setting is influenced by the task's assessment criteria, motivation plays a crucial role in this phase. To encourage engagement, reward-based strategies are implemented. Accordingly, the proposal receiving the most votes from peers by originality and presentation performance will earn one additional point. Furthermore, teams achieving the highest sales volume compared to their direct competitors will be awarded 0.5 points. Finally, the team with the highest overall sales figure will receive an additional 0.5 points.

Students will have access to all instructional materials on the e-learning platform. These materials comprise the theoretical content from the module on Competitive Strategies in Differentiation Leadership, as well as instructions for preparing the proposed learning game. Furthermore, a motivational message containing instructions and links to these instructional materials will be sent to the students, suggestions for free video editing resources, and information regarding reward-based motivational strategies.

The instructions specify how students should develop their differentiated product proposal with the understanding that the public presentation session will serve as a product launch event. During this event, each team will present their product to their classmates, who will act as potential clients (specifically, those from teams that did not develop the same product). This presentation is strictly limited to 3-5 minutes. The goal is not to explain the development process, but rather to employ any effective means to position their product within the minds of their target market. Teams should approach this presentation as if it were taking place at a real trade fair or exhibition and must always remember that their direct competitors are the other team(s) assigned the same basic product.

As promotion is a key source of competitive advantage, a mandatory element within these differentiation strategies is the utilization of the 'Promotion' element of the marketing mix (the 'P' of Promotion). To effectively convey their differentiated product's value proposition during the launch event, teams are encouraged to employ diverse promotional means, which may include video presentations, informational flyers, or other creative communication tools. Finally, following the transformation of the basic product into a differentiated one, each team must also determine its final pricing strategy.

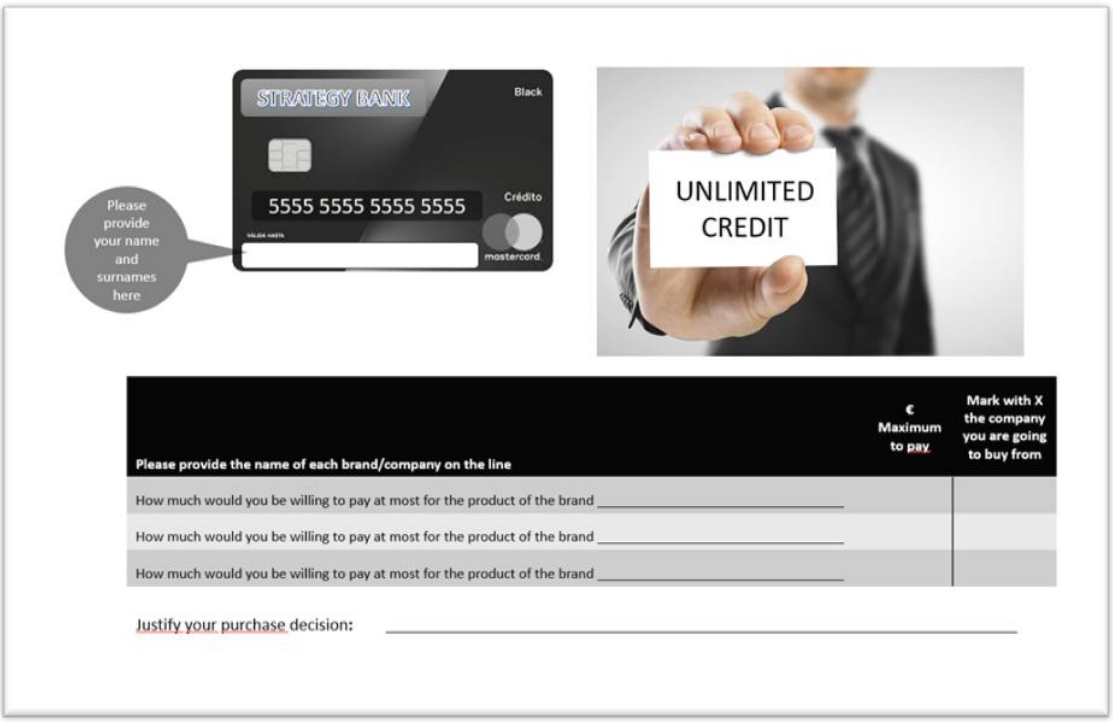
Formative assessment and feedback on autonomous work are facilitated through the electronic submission of a comprehensive report via the e-learning platform prior to the public presentation.

This report should detail the process of transforming the basic product into a differentiated one, clearly explaining the actions taken for each source of competitive advantage employed and the reason for its contribution to the product's differentiation. The professor will review these reports to provide feedback aimed at enhancing the teams' initial proposals before the live presentations.

Performance phase. Public launch session of differentiated products

The public launch session of differentiated products marks the debut of each team's differentiated product, which should be presented as differentiation leaders to their discerning peers. So, during the public launch session, students will assume dual roles: competing companies and consumers. As competing companies, each team will showcase their differentiated product to the rest of the class. As consumers, the classmates from teams with different products will evaluate the offerings and decide which product to purchase and at what maximum price, utilizing a hypothetical unlimited credit card. Each student, acting individually (not as a team), will be provided with a simulated credit card where they must record their purchase intentions, along with a brief justification for their choice (Image 2). The unlimited credit card serves to encourage students to base their purchasing decisions on the perceived added value of the differentiated products rather than price constraints.

Image 2. Simulated credit card



Source: Authors' own work

Concerning rewards, bonus points will be awarded to the team achieving the highest total sales volume and higher sales volume between competitors. Additionally, classmates who belong to non-competing companies will anonymously evaluate each presentation's originality and performance on a scale of 1 to 5, with the highest-scoring team earning extra points.

Self-reflection phase.

Following the conclusion of the learning game, each team will engage in a reflective analysis of the learning experience, grounded in the theoretical framework presented within the learning module on the Competitive Strategy of Differentiation Leadership. This reflection will be guided by

an electronic questionnaire addressing key aspects. The reflection prompts will center on the following questions:

- What effect did your team intend to achieve on the consumer by differentiating the product?
- What was the evolution of the product's initial and final price?
- How did your team's final product price compare to the maximum price the target audience was willing to pay?
- If the target audience showed a preference for a competitor's product, analyze the potential reasons for this outcome.
- Reflect on the advantages and disadvantages inherent in differentiation leadership strategies.
- What was the rationale behind establishing the assumption of unlimited credit for each member of the target audience in this learning game?

Once the questionnaire is completed collaboratively by all team members, a single file containing their collective reflections must be uploaded to the e-learning platform for their evaluation and feedback.

RESULTS

This learning game, designed to engage university students in learning differentiation leadership strategies, effectively achieved all intended learning objectives while fostering high student enthusiasm.

Firstly, the activity required students to apply the sources of competitive advantage in differentiation creatively and practically, as discussed in the corresponding didactic module. Developing their differentiated product proposals necessitated students understanding these theoretical concepts.

Secondly, the learning game yielded learning about the risks associated with differentiated leadership strategies. One key risk is the alignment of the product price with the perceived added value. As theoretically understood, a differentiation leader's success hinges on consumers' willingness to pay a premium for unique product or service features. However, several teams experienced the consequence of overpricing, where "potential customers" were unwilling to purchase their product, deeming the price disproportionate to the perceived differential value.

Another significant risk for the differentiation leaders encounter is imitation by competitors. Some teams struggled to protect the originality of their ideas, leading to "plagiarism" by competing teams and a consequent loss of perceived uniqueness. This was also evident when teams relied on common online sources for inspiration, resulting in similar product features and diminished distinctiveness.

A third risk highlighted the divergence in the perception of differentiation between the seller and the buyer. While teams often focused on personalizing products to create value, some were surprised when their potential customers did not value these specific differentiations or found them useful, leading to a lack of purchase interest.

Furthermore, the learning game yields to understanding that the success of differentiation leadership strategies is contingent upon environmental factors. One of these factors is the presence of consumers who value quality and are willing to pay a premium for it. Generally, these consumers base their purchasing decisions on added value rather than solely on price. However, despite providing students (potential customers) with a dummy unlimited credit card to encourage value-based purchasing, many still struggled to detach from real-world price sensitivities, leading to instances where differentiated products were not "purchased" under this premise.

Moreover, the activity facilitated the development of pre-established transversal competencies. Students actively engaged in teamwork, enhancing their communication, negotiation, and collaborative skills as they strived to outperform competing teams for rewards based on achieving the highest sales volume, demonstrating originality, and effective presentation skills. Natural leadership qualities within teams were also observed during the learning game's execution and public presentation. The teamwork and public speaking aspects directly contributed to the development of communication skills.

Post-activity anonymous questionnaires consistently confirmed the positive reception and engagement of the learning game. Students highly rated teamwork (4.7/5) and peer interaction (4.7/5). They also found learning game to be an engaging way to understand core theoretical concepts (4.3/5). Clarity of instructions (4.8/5), reasonable time allocation (4.1/5), and the motivating effect of the rewards (4.8/5) were also positively assessed.

Open-ended feedback consistently praised the learning game engaging and motivating nature. Improvement suggestions implemented across different courses included refining reward strategies, the manner of assigning products to ensure direct competition, incorporating 'design thinking' criteria for product development based on potential customer feedback, and varying product proposals each year to discourage reliance on previous courses.

Successful implementation requires an even number of teams, with a minimum of four and a maximum of six, to maintain engagement. To facilitate direct competition and meaningful rewards, products must be assigned so that pairs of teams compete using the same product. Rewards are then based on achieving the highest number of purchase intentions among these direct competitors. Furthermore, when introducing the activity, the instructor should emphasize that the classroom presentation is not framed as a traditional presentation, but as a staged simulation of a real-world trade show. Students must act as company employees, showcasing their product's unique qualities to visitors to secure their commitment to purchase at the set price.

DISCUSSION

The originality of this study resides in its novel integration of the Self-Regulated Learning (SRL) framework with kinesthetic learning within a strategic management learning context. This distinct focus marks a significant contribution to the field of management and business education in the higher education setting. By designing a gamified, dynamic methodology explicitly structured around Zimmerman's cyclical SRL phases, this approach moves beyond conventional deterministic teaching models. To the best of the authors' knowledge, this is one of the first studies to directly link these pedagogical elements to enhance the understanding of the competitive strategy of differentiation leadership, and which simultaneously contributes to the acquisition of a broad range of transversal competencies through active skill development.

In fact, the learning game presented in this study departs from traditional deterministic teaching models, successfully engaging university students in an active and comprehensive learning experience focused on differentiation leadership strategies. By integrating kinesthetic learning principles and gamification, the activity fostered a high level of student motivation, and it facilitated a practical understanding of strategic concepts related to differentiation products. The design, rooted in Zimmerman's (2000) SRL model, encouraged students to proactively plan, execute, and reflect on their learning, mirroring the iterative nature of strategic decision-making.

The observed outcomes indicate that learning game effectively met its learning objectives, enabling students to creatively apply differentiation advantages, critically assess the inherent risks and prerequisites for the implementation success of this competitive strategy, and develop crucial transversal competencies. The active roles assumed by students, both as competing companies and consumers, provided a valuable experiential learning opportunity. The positive feedback

obtained through anonymous questionnaires further validates the engaging and motivating nature of this learning game.

The learning outcomes achieved through the application of this gameful active learning experience are consistent with findings from other gamification initiatives reported in the literature. Drawing upon recent systematic reviews concerning gamification in higher education contexts (e.g., González-Fernández, Revuelta-Domínguez & Fernández-Sánchez, 2022; Jaramillo-Mediavilla et al., 2024), studies affirm that the incorporation of game elements—such as peer competition, teamwork, and dashboards—effectively promotes the acquisition of novel information. Specifically, competition motivates students to provide immediate performance feedback, while teamwork cultivates essential collaborative skills like communication and conflict resolution as students work toward common goals. Furthermore, dashboards enable students to monitor progress, set personal objectives, and maintain focus.

However, the main limitation regarding the implementation of this proposal is the size of the student practice group. Indeed, the success of the results is contingent upon having an optimal group size of students. On the one hand, a minimum number of students is required to form at least four teams, so that they can compete two against two with their product proposals. Conversely, having more than six groups would lead to a level of student interest lost due to the excessive number of presentations.

Looking towards future advancements, we propose the integration of Artificial Intelligence (AI) tools, particularly within the design thinking and differentiated product design phases. Students could leverage AI for tasks such as market trend analysis, idea generation, and the exploration of innovative product features. However, to ensure academic rigor, any use of AI should be fully documented in a dedicated report. This report would require teams to detail the AI tools employed, the information retrieved, and their critical and analytical evaluation of the AI-generated insights in shaping their final product proposals. This integration aims to enhance the dynamism of the activity, expose students to cutting-edge technological resources relevant to strategic innovation, and cultivate essential skills in critically evaluating and applying AI-driven information within a business context.

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