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Perceived Online Teaching–Learning Environment as a Predictor of Student Satisfaction: Evidence from a Spanish Course

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Abstract

This study examines the relationship between students' perceptions of the online teaching–learning environment and their satisfaction with a Spanish language course at a private university. Using a quantitative, correlational design, we analyzed student survey responses adapted from established online learning environment scales to capture instructor support, student interaction and collaboration, personal relevance, authentic learning, active learning, student autonomy, and enjoyment of distance education. Results indicate a significant positive association between perceptions of the online learning environment and overall satisfaction (Kendall's tau-b = .367, p = .001; N = 43). Findings reinforce the importance of clear course structure, timely feedback, and robust instructor–student interaction in non-traditional modalities. We discuss implications for instructional design, faculty development, and student support services, and offer actionable recommendations to enhance learner experience and satisfaction in online language courses. Limitations and future research directions are outlined to guide subsequent studies within Hispanic-serving contexts and similar higher-education settings.

Keywords: online learning environment; student satisfaction; instructor presence; course design; interaction

Resumen

Este estudio analiza cómo las percepciones de los estudiantes sobre el entorno de enseñanza-aprendizaje en línea se relacionan con la satisfacción en un curso de español en una universidad privada. Mediante un diseño cuantitativo y correlacional, se evaluaron respuestas a un cuestionario adaptado de escalas reconocidas del entorno de aprendizaje en línea para medir apoyo del instructor, interacción y colaboración de los estudiantes, relevancia personal, aprendizaje auténtico, aprendizaje activo, autonomía de los estudiantes y disfrute de la educación a distancia. Los resultados muestran una asociación positiva y significativa entre las percepciones del entorno de aprendizaje y la satisfacción general (Tau-b de Kendall = .367, p = .001; N = 43). Los hallazgos destacan la importancia de una estructura clara del curso, retroalimentación oportuna e interacción sólida docente-estudiante en modalidades no tradicionales. Se discuten implicaciones para el diseño instruccional, el desarrollo docente y los servicios de apoyo al estudiante, y se ofrecen recomendaciones prácticas para fortalecer la experiencia y la satisfacción del aprendiz en cursos en línea e híbridos de lenguas. Se presentan limitaciones y futuras líneas de investigación para contextos afines y de servicio a poblaciones hispanas.

Palabras clave: entorno de aprendizaje en línea; satisfacción estudiantil; presencia docente; diseño del curso; interacción

Perceived Online Teaching–Learning Environment as a Predictor of Student Satisfaction: Evidence from a Spanish Course

Non-traditional modalities of learning continue to expand across higher education, including in world language courses where learners rely on rich interaction, timely feedback, and scaffolded practice. However, empirical evidence from Spanish courses offered in non-traditional modalities at private universities in Puerto Rico remains limited. In fact, the university where the study was conducted has offered the Spanish course to students through non-traditional modalities, such as online education, for more than a decade. However, during this period, no study has been conducted to determine how students perceive the classes and their level of satisfaction. This study represents the first evaluation of the program from this perspective.

Considering the above and given that the course can represent a challenge for university students, and that perhaps for many it is the first time they face education in non-traditional modalities, this article addresses that gap by examining how the perceived teaching–learning environment relates to student satisfaction. Therefore, measuring perception and satisfaction will help determine the extent to which students perceive and are satisfied with the psychosocial characteristics, instructor support, interaction and collaboration between students, personal relevance, authentic learning, active learning, student autonomy, and enjoyment of education in a non-traditional modality (Walker, 2003). This study contributes a focused analysis of a Spanish course context and translates findings into practical recommendations for instructional design, faculty development, and student support services.

Definitions

Non-traditional modalities: Refers to teaching and learning methods that deviate from conventional approaches, using digital technologies, self-directed learning, distance education, and flexible formats that allow students to access educational content in ways that are more adaptable to their personal needs and specific contexts (Martínez-Bahena & López-Escogido, 2017).

Brief Review of Related Literature

Research on online learning effectiveness consistently emphasizes the role of clear structure, presence, and interaction. Community of Inquiry studies suggest that teaching, social, and cognitive presence underpin learner satisfaction and perceived learning. Parallel strands in the literature highlight how accessible course navigation, explicit workload expectations, and timely formative feedback reduce extraneous cognitive load and increase persistence. In language learning, evidence indicates that authentic tasks, frequent low-stakes practice, and multimodal interaction (e.g., audio, video, discussion) support motivation and confidence. Validated instruments such as the Distance Education Learning Environments Survey (DELES) developed by Walker (2003) and related scales operationalize domains including instructor support, peer interaction and collaboration, active learning, and learner autonomy, all of which have been linked to satisfaction and course completion.

The growth of online and nontraditional modalities has been significant since the introduction of the personal computer and the web in the 1980s (Thompson, 2021). Initially adopted by executives and a limited number of postsecondary institutions, online learning has become essential worldwide (Sanz et al., 2020). Learning platforms have enabled the expansion of interactive and participatory learning environments (Online Schools Organization, 2021).

Given these advances, it is crucial to understand how students themselves perceive the quality of these educational services. Evaluating online courses requires careful planning and effective resource management. Flores et al. (2016) emphasized that evaluation should consider the relative importance of different elements for each learner, while Gutiérrez (2019) underscored the need for a systematic and comprehensive approach. Other key dimensions include pedagogy, technology, interface design, assessment, management, and online orientation, all of which contribute to enhancing the student experience.

Research has also shown that students' perceptions of online learning environments encompass effectiveness, the use of multimedia, and instructor-guided teaching. Cabero et al. (2010) and Arjona and Cebrián (2012) reported high levels of satisfaction with virtual learning experiences, while Fernández-Pascual et al. (2013) highlighted the importance of faculty support and peer interaction. More recently, studies conducted during the pandemic revealed that satisfaction with online learning varied according to digital infrastructure and contextual factors (Kalita et al., 2022; Xu & Xue, 2023). Similarly, Begum (2024) identified flexibility and convenience as valued features, though concerns about interaction quality and instructional effectiveness persist.

Despite these extensive findings, few studies have explicitly focused on Spanish language courses within Hispanic-serving contexts. This gap highlights the importance of examining student perceptions and satisfaction in such settings, as these insights can inform instructors and program leaders who seek to refine online language offerings. Ongoing evaluation of nontraditional Spanish courses is therefore essential, not only to improve educational quality but also to strengthen learner motivation, confidence, and retention.

Methods

We employed a quantitative, correlational design to investigate the relationship between students' perceptions of the online teaching and learning environment and their overall satisfaction.

Participants and Sampling

The study took place at a private university in Puerto Rico within a multi-section Spanish language course delivered in a non-traditional modality. A convenience sampling technique was used. The participating university had a population of 340 students enrolled in non-traditional Spanish courses during the two semesters of the academic year. The sample obtained was 48 subjects, representing 14% of the students enrolled in the Spanish course sections. However, only 43 participants (N = 43) completed the survey, as five instruments completed by students who did not meet the inclusion criteria were excluded. Enrollment included adult learners across academic programs.

Instrument

The "Distance Education Learning Environments Survey," designed by Dr. Scott L. Walker in 2003 and published by Mind Garden, Inc., was used for its intended purpose. This questionnaire assesses the distance education learning environment using seven subscales. As shown in Table 1, the perception variable included the subscales of student interaction and collaboration (items 9-14), active learning (items 27-29), and student autonomy (items 30-34). The satisfaction variable included the subscales of instructor support (1-8), personal relevance (15-21), authentic learning (22-26), and enjoyment of non-traditional learning (35-42). A total of 42 items were presented on Likert-type scales, which are appropriate for ordinal analysis. Internal consistency for multi-item domains met acceptable thresholds in the original

instruments; values for the current sample were inspected for anomalies. Survey administration followed institutional ethics protocols.

Table 1

Alignment of DELES survey dimensions, survey items, and study variables

Survey Dimensions	Survey Items	Variables
Instructor support	1 – 8	Satisfaction
Student interaction and collaboration	9 – 14	Perception
Personal relevance	15 – 21	Satisfaction
Authentic learning	22 – 26	Satisfaction
Active learning	27 – 29	Perception
Student autonomy	30 – 34	Perception
Enjoyment of distance education	35 – 42	Satisfaction

Note. Adapted from Cervera-Sáenz, B. A. (2018). *Relationships Between Students' Perceptions, Preferences, and Satisfaction of Online and Traditional Courses* (Publication No. 2154810583) [Doctoral dissertation, Grand Canyon University]. ProQuest Dissertations and Theses Global.

Procedures and Data Analysis

Following approval by the IRB, the investigation was conducted. Survey data were cleaned for completeness and screened for distributional assumptions. Given ordinal response options and small-sample considerations, we estimated Kendall's tau-b coefficients to test bivariate associations among constructs. We also conducted exploratory subgroup analyses to

gauge directional trends, with the caveat that cell sizes limited statistical power. Statistical significance was evaluated at $\alpha = .05$ with two-tailed tests.

Results

A statistically significant positive association was found between the overall perception of the online teaching–learning environment and overall satisfaction ($\tau b = 0.367$, $p = 0.001$; $N = 43$), as shown in Table 2 using Kendall's Tau-b coefficient. The positive correlation of 0.367 suggests a direct relationship between how individuals perceive certain aspects and their satisfaction with those aspects.

Table 2

Correlation for perception and satisfaction

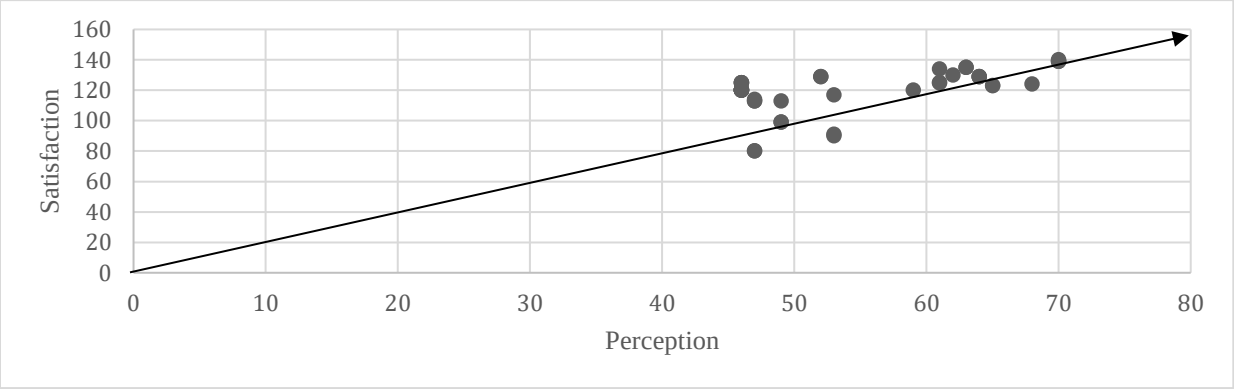
Variables		Perception	Satisfaction
Perception	Kendall's Tau-b coefficient	1	0.367**
	Sig.(bilateral)	.	.001
	N	43	43
Satisfaction	Kendall's Tau-b coefficient	.367**	1
	Sig.(bilateral)	.001	
	N	43	43

Note. ** Kendall's Tau-b is significant at or less than .05 ($p. \leq .05$).

Similarly, Figure 1 shows that an increase in students' perception scores is accompanied by an increase in satisfaction, visualizing the same positive association reported in Table 2.

Figure 1

Correlation between perception and satisfaction



At the subscale level, the analysis revealed several statistically significant relationships among the subscales. First, *instructor support (satisfaction)* was positively associated with *student interaction and collaboration (perception)*, TB = 0.576, $p < .01$, indicating that stronger perceptions of peer interaction and collaboration were linked to greater satisfaction with instructor support. Similarly, *instructor support (satisfaction)* was positively related to *enjoyment of nontraditional education (satisfaction)*, TB = 0.420, $p < .01$. This suggests that as satisfaction with instructor support increases, so does students' enjoyment of nontraditional learning.

Significant associations also emerged between student collaboration and learning outcomes. The subscales *student interaction and collaboration (perception)* and *authentic learning (satisfaction)* demonstrated a positive relationship, TB = 0.281, $p < .05$, suggesting that when students perceived effective collaboration, they also reported higher satisfaction with authentic learning experiences. Additionally, *student interaction and collaboration (perception)* was positively associated with *active learning (perception)*, TB = 0.254, $p < .05$, showing that collaboration among peers influenced students' perceptions of active learning.

Further, *personal relevance (satisfaction)* was positively related to *authentic learning (satisfaction)*, TB = 0.456, $p < .01$, indicating that students who considered the course personally meaningful also reported greater satisfaction with authentic learning. Likewise, *authentic learning (satisfaction)* was significantly associated with *active learning (perception)*, TB = 0.370, $p < .01$, suggesting that perceptions of active engagement corresponded with increased satisfaction in authentic learning tasks.

Finally, the analysis showed a positive association between *active learning (perception)* and *student autonomy (perception)*, TB = 0.339, $p < .05$. This finding suggests that as students' perceptions of autonomy increased, so too did their perceptions of active learning.

Discussion

Findings reinforce that students who perceive a well-structured course with visible instructor presence and ample opportunities for authentic, active engagement are more likely to report satisfaction (López & Flores, 2018; Huei-Chuan & Chien, 2020); Cabero et al., 2010; Arjona & Cebrián, 2012; Fernández-Pascual et al., 2013). The overall association between the perception of the teaching–learning environment and satisfaction ($\tau b = .367$) is meaningful for a single-course study with a modest sample size, and the pattern of significant subscale relationships suggests plausible mechanisms. In particular, the link between instructor support and peer interaction/collaboration indicates that presence is not merely about announcements or grading cadence; when instructors model participation, frame collaborative work with clear roles, and respond promptly, students appear more willing to engage with one another. Likewise, the connection between authentic learning and active learning suggests that practice tasks perceived as real, consequential, and situated in language use (e.g., short dialogues, micro-

presentations, peer feedback on drafts) are the same tasks that motivate learners to take observable action.

These dynamics align with established frameworks of online learning. Within a Community of Inquiry lens, the results indicate that teaching presence (design, facilitation, and direct instruction) serves as an upstream driver, enabling social presence (comfortable interaction with peers) and cognitive presence (purposeful engagement). From an instructional design perspective, the clarity of structure (predictable navigation, explicit workload expectations, and assessment transparency) reduces extraneous cognitive load, allowing learners to allocate attention to meaning-making and practice. In language learning specifically, opportunities for comprehensible input and output—especially when chunked into short, low-stakes cycles with quick feedback—appear to lower anxiety and increase self-efficacy, two conditions commonly related to satisfaction and persistence.

Importantly, not all subscale relationships reached significance, which adds nuance. Non-significant pairs may reflect overlapping variance among subscales (e.g., active learning and autonomy often co-occur), limited power given the sample size, or genuine boundary conditions in a language course context. For example, learner autonomy may matter most once a baseline of structure and support is met; before that threshold, autonomy signals "freedom without guardrails" rather than empowerment.

Recommendations

Beyond pedagogy, support infrastructure emerges as a practical lever. Easy-to-find resources (orientation pages, "start here" modules, troubleshooting FAQs) and just-in-time technical help translate into fewer task interruptions and less frustration—conditions that, while not directly "instructional," meaningfully shape the perceived environment. In programs serving

Hispanic learners and bilingual communities, culturally responsive cues also warrant emphasis. This includes modeling bilingual support options where appropriate, integrating examples that reflect learners' contexts, and ensuring accessibility (such as captioned media and mobile-friendly tasks), which can raise perceptions of relevance and inclusion, often correlating with satisfaction.

From a faculty-development standpoint, the results argue for habitual, light-lift practices that compound over time: (1) a weekly overview message with "purpose, tasks, and time estimates," (2) consistent module patterns, (3) short authentic tasks with exemplars and rubrics, (4) predictable feedback cycles (e.g., within 48–72 hours), and (5) designed—not incidental—peer interaction (e.g., partner dialogues with rotating roles and explicit prompts). At the program level, course shells can standardize high-impact patterns (such as navigation, assessment transparency, and support links) while leaving instructors room to personalize examples and interactions. This is why it is so important that instructors participate in comprehensive training that helps them to effectively manage and deliver courses in non-traditional modalities, focusing on personalization and interaction.

Lastly, pairing these design moves with learning analytics—such as monitoring on-time submission rates after introducing checklists or tracking discussion depth after feedback changes—can help close the loop between perception data and continuous improvement.

Limitations

The single-course context and modest sample limit generalizability. Self-report measures may be sensitive to expectancy and halo effects. We did not model causal pathways, and subgroup analyses were underpowered. Nonetheless, the consistent positive associations provide practical signals for course and program improvement.

Future Research

Subsequent studies could triangulate self-reports with behavioral and performance data (e.g., LMS interaction logs, assessment artifacts), test interventions that manipulate presence and authentic task design, and extend analyses across multiple language courses and institutions serving Hispanic learners. Mixed-methods designs can illuminate mechanisms, such as how learners experience the interplay between structure, interaction, and feedback.

Conclusion

This study found that, in an introductory Spanish course delivered in a non-traditional modality, perceptions of the online teaching and learning environment were positively associated with student satisfaction. The combination of clear structure, visible instructor presence, authentic tasks, and designed peer interaction is especially consequential for learners' experience. For faculty and program leaders, the practical implication is straightforward: standardize a few high-impact patterns (predictable module design, weekly overview messages with time estimates, brief authentic activities with exemplars and rubrics, and timely feedback cycles) and support them with easily accessible resources and just-in-time help. While these findings are based on a single course and rely on self-report measures, they align with established theory and provide a workable blueprint for incremental improvement. Future work should triangulate perceptions with behavioral and performance indicators and test targeted design changes (e.g., feedback turnaround, structured collaboration) to estimate their causal impact. Taken together, these insights provide actionable guidance for strengthening online language instruction and may generalize to other skills-forward disciplines delivered in online and blended formats.

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