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English teaching as perceived by students and its relationship with learning outcomes

La enseñanza del inglés percibida por estudiantes y su relación con los resultados de aprendizaje

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ABSTRACT

The quality of teaching activity constitutes a notable pedagogical factor in addressing the contemporary challenges of English teaching in higher education. This study analyzed the relationship between English teaching, as perceived by Ecuadorian university students, and their learning and satisfaction. A quantitative, non-experimental, correlational, and cross-sectional design was used, with data from 7 teachers evaluated through two anonymous online surveys (2,550 valid responses), from which a stratified random sample of 1,200 responses was drawn. Based on items common to both surveys, two scales were constructed: teaching process (6 items) and learning satisfaction (5 items), recoded on a 1-to-5 scale. Reliability (Cronbach's alpha) was .968 and .853, respectively. Since the Shapiro-Wilk test showed a lack of normality ($p < .001$), Spearman's correlation coefficient was used. The results showed high levels in both variables (teaching process: $M = 4.38$, $SD = 0.94$, 80.2% at a high level; learning and satisfaction: $M = 4.42$, $SD = 0.71$, 78.8% at a high level), with a positive, high, and significant correlation between them ($\rho = .721$; $p < .001$). It is concluded that perceived teaching process is positively associated with student learning and satisfaction, although these findings are associative, not causal, and constitute approximations of teaching process creativity rather than a direct, psychometrically validated measurement.

Keywords: English teaching, teaching process, learning, student satisfaction, higher education

RESUMEN

La calidad de la actividad docente constituye factores pedagógicos notables para enfrentar los desafíos contemporáneos del proceso de enseñanza del inglés en la educación superior. Este estudio analizó la relación entre el proceso de enseñanza de profesores de inglés, percibida por estudiantes universitarios ecuatorianos, y su aprendizaje y satisfacción. Se empleó un diseño cuantitativo, no experimental, correlacional y transversal, con datos de 7 docentes evaluados mediante dos encuestas anónimas en línea (2,550 respuestas válidas), de las cuales se extrajo una muestra aleatoria estratificada de 1,200 respuestas. A partir de ítems comunes en ambas encuestas se construyeron dos escalas: proceso de enseñanza (6 ítems) y satisfacción del aprendizaje (5 ítems), recodificadas a escala de 1 a 5. La fiabilidad (alfa de Cronbach) fue de .968 y .853 respectivamente. Dado que la prueba de Shapiro-Wilk mostró ausencia de normalidad ($p < .001$), se usó el coeficiente de correlación de Spearman. Los resultados evidenciaron niveles altos en ambas variables (proceso de enseñanza: $M = 4.38$, $DE = 0.94$, 80.2% en nivel alto; aprendizaje y satisfacción: $M = 4.42$, $DE = 0.71$, 78.8% en nivel alto), con una correlación positiva, alta y significativa entre ellas ($\rho = .721$; $p < .001$). Se concluye que el proceso de enseñanza percibida se asocia positivamente con el aprendizaje y la satisfacción de los estudiantes, aunque estos hallazgos son asociativos, no causales, y constituyen aproximaciones a la creatividad docente más que una medición directa validada psicométricamente.

Palabras clave: enseñanza del inglés, proceso de enseñanza, aprendizaje, satisfacción estudiantil, educación superior

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INTRODUCTION

English as a foreign language has become a strategic priority for higher education institutions because of globalization of education, academic mobility, access to international scientific communities, and the communication needs of the labor market. Therefore, English is not limited to memorizing grammatical structures or vocabulary; it constitutes an academic, professional, and social competence linked to the world with which students interact. Universities must therefore establish pedagogical conditions that allow students to use the language in a functional, contextual, and communicatively important way.

However, university-level English teaching remains a complex task because of students' motivation, the diversity of language skills, technological integration, and the necessity to provide authentic communication opportunities. These challenges call for a teaching process that go beyond routine, transmissive instruction. Engaging, participatory, and resourceful teaching is fundamental because it transforms the English classroom into a more active, motivating, and meaningful space.

For the purposes of this study, teaching process quality is understood as the extent to which students perceive their teacher's approach as clear, collaborative, engaging, responsive, well organized, and supported by effective materials, activities, and technology. This construct is conceptually related to teacher inventiveness and methodology, specially, to the pedagogical flexibility, participatory innovation, and use of resources described in the literature, but it was measured here through institutional course-evaluation items rather than through a validated teacher-inventiveness psychometric scale. This distinction is made explicit because it directly affects how the results can be interpreted.

Student learning, the dependent variable of the study, is understood as students' perceived learning experience, expressed through their evaluation of the effectiveness of materials, activities, and technology used in the course, whether the course met their expectations, and their willingness to recommend it. From a constructivist perspective, learning occurs when students actively construct meaning within their learning environment; therefore, teaching process perceived as clear, collaborative, and well resourced can be expected to relate to more favorable learning and satisfaction perceptions.

The research problem emerges from the tension between the current demands of university English teaching and the need for empirical evidence, in the Ecuadorian university context, on how students' perceptions of their teachers' practice relate to their own learning experience. As a consequence, the guiding question was: ¿to what extent is students' perceived teaching process related to their perceived learning at an Ecuadorian university language center?

The general objective was to examine the relationship between students' perceived teaching process of English teachers and students perceived learning at an Ecuadorian university

language center. The specific objectives were to identify the level of teaching process perceived by students, to assess the level of learning satisfaction perceived by students, to analyze the relationship between both variables, and to determine the internal consistency of the composite scales used. Because the analysis is correlational and based on secondary survey data, the results are interpreted as associative and not causal. The general hypothesis was that students' perceived teaching process is positively and significantly associated with their perceived learning; the null hypothesis held that no significant relationship exists between the two variables.

MATERIALS AND METHODS

Approach, paradigm, and design

The study followed a quantitative approach and a positivist paradigm. This decision was made in agreement with the objective of measuring the study variables through structured survey items and quantitatively evaluating the relationship between perceived teaching process and perceived learning. The design was non-experimental, since the variables were not manipulated; cross-sectional, because data collection took place within a short, defined period; and correlational, since the aim was to assess the degree and direction of the relationship between the variables. Results therefore allow the identification of statistically significant associations but not the establishment of causality.

The study was carried out at the language center of an Ecuadorian public university. The names of the two surveys export used as data sources for this study: online modality and satisfaction survey suggest that the courses evaluated belong to a university language center identified in the source files; however, the exact institutional name, city, and academic period were not independently verified beyond this filename information and are therefore not asserted with certainty.

Population, sample, and sampling

The teaching population consisted of 7 English teachers, whose courses were evaluated by their students through two independent, anonymous, institutional course-evaluation/satisfaction surveys: one applied to online-modality courses and one applied as satisfaction survey. Because both surveys were fully anonymous, collected no personal identifying information (the identification fields returned “anonymous” and blank name fields), and recorded the teaching group in a highly inconsistent free-text field (more than 200 different variants for a limited number of actual groups, e.g., “FT”, “F-T”, “Ft”, “F-T ”), it was not possible to reliably link individual student responses to a specific one of the 7 teachers. Consequently, results are reported at the aggregate level for the group of 7 teachers as a whole, and this constitutes a declared limitation of the study rather than an assumption presented as fact.

The online-modality survey yielded 1,310 raw student responses (1,293 valid after removing records with missing values on the analysis items), and the satisfaction survey yielded

1,265 raw student responses (1,257 valid), for a combined valid pool of 2,550 student responses. From this pool, a proportionally stratified random sample of 1,200 responses was drawn for descriptive and inferential analysis, preserving the relative size of each source: 608 responses from the online-modality survey and 592 responses from the satisfaction survey.

Information on inclusion and exclusion criteria beyond completeness of the analysis items, on the exact enrolled student population, and on the sample-size calculation procedure is not available in the source files and is therefore declared as not specified.

Table 1

Data sources and analysis sample

Source	Raw responses	Valid responses	Analysis sample
Online-modality survey	1,310	1,293	608
Satisfaction survey	1,265	1,257	592
Total	2,575	2,550	1,200

Note. Teaching population: 7 English teachers (census; individual-level linkage not available due to anonymization).

Data collected between April 20 and April 23, 2026.

Variables and dimensions

The independent variable was students' perceived teaching process, used in this study as a proxy indicator related to pedagogical inventiveness and engagement, given that the source instruments were institutional course-evaluation surveys rather than a validated teacher-methodology scale. It was operationalized through six items worded identically in both surveys, rated on a five-point agreement scale (1 = Totally disagree to 5 = Totally agree). The dependent variable was students' perceived learning and course satisfaction, operationalized through five indicators drawn from items common to both surveys or recoded to a comparable 1-5 metric.

Table 2

Operationalization of variables

Variable	Items / Indicators	Measurement
Perceived teaching process	1. Clear and understandable teaching approach; 2. Encouraged student participation; 3. Sustained students' interest; 4. Answered questions thoroughly; 5. Managed class time well; 6. Explained tasks clearly	6-item scale, 5-point agreement format, recoded 1-5
Perceived learning and satisfaction	1. Effectiveness of materials; 2. Effectiveness of learning activities; 3. Effectiveness of technology use; 4. Course met expectations (recoded); 5. Likelihood to recommend the course (0-10, rescaled to 1-5)	5-indicator composite scale, recoded 1-5

Note. Items were recoded to a 1-5 scale from the original surveys. The recommendation likelihood item (originally 0-10) was rescaled for inclusion in the composite scale.

Instruments

Data came from two institutional, anonymous, self-administered online course-evaluation of satisfaction questionnaires collected through a digital survey platform (evidenced by automatically recorded submission timestamps). The two questionnaires shared a core set of items worded identically: six items on teacher practice and three items on the effectiveness of materials, activities, and technology, plus one item on whether the course met expectations and one 0-10

recommendation-likelihood item. The remaining items in each questionnaire were survey-specific (e.g., platform-use items in the Satisfaction survey, connectivity and modality-preference items in the online-modality survey) and were not used in the composite scales in order to preserve comparability across both data sources.

Response categories originally used agreement wording (e.g., “Totally disagree” to “Totally agree”) or effectiveness wording (e.g., “Extremely ineffective” to “Totally effective”); these were recoded to a common 1-5 numeric scale for analysis. The course-expectations item (Yes / Not sure / No) was recoded to 5 / 3 / 1, and the 0-10 recommendation item was linearly rescaled to a 1-5 metric.

Because these are institutional evaluation instruments and not a previously validated psychometric scale of teacher inventiveness, no content-validity judgment by an expert panel or construct-validity evidence (e.g., factor analysis) is available for the specific composites built for this study. This is declared as a limitation rather than assumed.

Reliability

Internal consistency of the two composite scales was estimated with Cronbach's alpha, calculated directly on the analysis sample (n = 1,200).

Table 3
Reliability of the composite scales (n = 1,200)

Scale	Items	Cronbach's alpha
Perceived teaching process	6	.968
Perceived learning satisfaction	5	.853

Note. Cronbach's alpha values indicate excellent internal consistency for the Perceived Teaching Process scale and good internal consistency for the Perceived Learning and Satisfaction scale. Reliability was calculated based on the recoded 1–5 composite scales described in Table 2.

Both coefficients indicate adequate to high internal consistency for the analysis sample. No confidence intervals or exploratory/confirmatory factor analyses were computed.

Data collection procedure

Data were collected through the two questionnaires described above, applied to the respective student groups within a short period (April 20 to April 23, 2026, according to the timestamps recorded in the source files). Both surveys were cross-sectional, self-administered online, and anonymous. Information on the exact instructions given to respondents, the order of item presentation, and specific strategies to control social-desirability or straight-lining bias is not available and is declared as not specified.

Ethical considerations

Both source questionnaires were fully anonymous: the identification field consistently returned “anonymous” and no respondent name was recorded. No personally identifying information was available for either students or teachers. Beyond this anonymization, no

information on institutional ethics-committee approval, approval codes, or informed-consent procedures is available in the source files and is declared as not specified.

Statistical techniques

Data were processed using Python (pandas and SciPy libraries) directly on the raw survey exports. Descriptive statistics characterized the levels of perceived teaching process and perceived learning/satisfaction. The Shapiro-Wilk test was used to assess normality of the two composite variables; because both departed significantly from normality ($p < .001$), Spearman's rho was used to evaluate the association between them, consistent with an ordinal, non-parametric approach. The significance level used throughout was $p < .05$, and the main correlation was significant at $p < .001$.

RESULTS

Results are presented according to the study's objectives. First, descriptive results for the two composite variables and their items are shown; then, the correlational analysis between perceived teaching process and perceived learning satisfaction is presented.

Table 4

Descriptive results of the composite variables ($n = 1,200$)

Variable	M	SD	High (%)	Medium (%)	Low (%)
Perceived teaching process	4.38	0.94	80.2	12.7	7.2
Perceived learning / satisfaction	4.42	0.71	78.8	15.3	5.9

Note. Levels defined as Low < 3 , Medium $3-3.99$, High ≥ 4 , on the 1-5 recoded metric.

The first specific objective was to identify the level of teaching process perceived by students. Results showed a high average level ($M = 4.38$, $SD = 0.94$), with 80.2% of responses in the high range. This indicates that students frequently perceived their English teachers as clear, participatory, engaging, responsive, well organized, and effective at explaining tasks.

The second specific objective was to assess the level of learning/satisfaction perceived by students. Results showed a similarly high average level ($M = 4.42$, $SD = 0.71$), with 78.8% of responses in the high range, reflecting favorable perceptions of the effectiveness of materials, activities, and technology, as well as high expectation-fulfillment and recommendation likelihood.

Table 5

Item-level descriptive statistics ($n = 1,200$)

Item	M	SD
Teaching approach was clear and understandable	4.38	0.98
Encouraged student participation	4.43	1.01
Sustained students' interest	4.29	1.04
Answered students' questions thoroughly	4.42	1.02
Managed class time well	4.38	1.01
Explained course tasks clearly	4.39	1.01
Effectiveness of teaching materials	4.31	0.95
Effectiveness of learning activities	4.38	0.92

Effectiveness of technology use	4.41	0.93
Course met expectations (recoded 1-5)	4.58	0.99
Likelihood to recommend the course (recoded 1-5)	4.44	0.68

Note. M = mean; SD = standard deviation. All items were measured on a 1–5 scale. The items "Course met expectations" and "Likelihood to recommend the course" were recoded from their original response formats to a 1–5 scale to allow comparability with the other items.

The third specific objective was to analyze the relationship between perceived teaching process and perceived learning/satisfaction. Because the Shapiro-Wilk test indicated that both composite variables departed significantly from a normal distribution ($p < .001$ in both cases), Spearman's rank correlation was used. The analysis showed a positive, high, and statistically significant correlation between the two variables ($\rho = .721$; $p < .001$; $n = 1,200$), supporting the general hypothesis and allowing rejection of the null hypothesis.

Table 6

Correlation between perceived teaching process and perceived learning/satisfaction ($n = 1,200$)

Variables	ρ	p	Interpretation
Teaching process – Learning/satisfaction	.721	$< .001$	High, positive, statistically significant correlation

Note. M = mean; SD = standard deviation. All items were measured on a 1–5 scale. The item "Course met expectations" and "Likelihood to recommend the course" were recoded from their original response formats to a 1–5 scale for comparability with the other items.

As a complementary check, composite scores were compared across the two data sources: mean teaching-process scores were virtually equivalent between the online-modality survey ($M = 4.39$, $SD = 0.90$) and the Satisfaction survey ($M = 4.38$, $SD = 0.97$), as were mean learning satisfaction scores ($M = 4.43$, $SD = 0.71$, and $M = 4.42$, $SD = 0.72$, respectively). This suggests that the observed association is not an artifact of one particular data source.

The magnitude of the coefficient indicates a robust association between the variables. However, because of the non-experimental, cross-sectional design, and because of the analysis is based on institutional evaluation surveys rather than a validated inventiveness instrument, the results should not be interpreted as evidence of a causal effect, nor as a direct measurement of teacher inventiveness. The association observed is best described as: students who perceive their teacher's practice more favorably also tend to report more favorable perceptions of their own learning and satisfaction with the course.

DISCUSSION

The study found a positive, high, and statistically significant relationship between students' perceived teaching process of their English teachers and their perceived learning/satisfaction at an Ecuadorian university language center. The Spearman coefficient ($\rho = .721$; $p < .001$) supports the general hypothesis and leads to rejection of the null hypothesis, indicating that, within the population studied, more favorable perceptions of teaching process are associated with more favorable learning and satisfaction perceptions.

Regarding the first specific objective, students perceived a high level of teaching process among the group of 7 English teachers evaluated, particularly in terms of clarity, participation, responsiveness, and time management. These characteristics are conceptually related to innovative and engaging teaching, although, as noted, they were captured through course-evaluation items rather than through a dedicated inventiveness scale.

Regarding the second specific objective, students reported favorable perceptions of their learning experience, linked to the perceived effectiveness of materials, activities, and technology, as well as to expectation fulfillment and willingness to recommend the course. This result suggests that student learning perceptions should be examined not only through performance outcomes but also through experiential dimensions of the course.

Regarding the third specific objective, the identified relationship supports the broader premise that engaging, participatory, and well-resourced teaching process are associated with more favorable learning experiences in university English teaching. However, given the non-experimental, cross-sectional design and the reliance on institutional survey data rather than a validated inventiveness instrument, this relationship cannot be interpreted as causal or as direct evidence about teacher methodology specifically.

The internal-consistency coefficients obtained for the composite scales used in this study (.968 and .853) indicate that, for this sample, the items grouped under each dimension behaved coherently; nonetheless, these coefficients describe the scales as constructed for this secondary analysis and should not be equated with the psychometric properties of a validated teacher-methodology or student-learning instrument.

The results suggest the value of strengthening teacher professional development around participatory, communicative, and technology-supported practices. For the institution, the findings support continued monitoring of course-evaluation data as one source of evidence on the student experience. For researchers, the study offers an empirical illustration of how institutional evaluation-survey data can be re-analyzed to explore associations between teaching process and student-perceived learning, while highlighting the methodological limits of doing so without a purpose-built instrument.

Study Limitations

First, the mismatch between the originally intended instrument and the data actually available: the analysis relies on institutional course-evaluation/satisfaction surveys, not on a validated 24-item teacher methodology questionnaire or a validated 20-item student-learning questionnaire. Consequently, the “teaching process” and “learning satisfaction” variables used here are proxy composites, not direct, validated measurements of teacher methodology or student learning.

Moreover, another limitation is the lack of individual teacher identification. Because both surveys were anonymous and recorded the teaching group inconsistently, student responses could

not be linked to a specific one of the 7 teachers. The results therefore describe the group of teachers in aggregate and do not allow individual-level comparisons or conclusions about any single teacher.

In addition, it can be found the cross-sectional design, which does not allow the observation of changes over time or the establishment of causality. Although a strong correlation was found, it cannot be claimed that teaching process directly produces improvements in learning.

Furthermore, another limitation is the correlational scope of the study. It allows estimating associations between variables but does not control for intervening variables such as students' initial English level, teacher experience, group size, institutional resources, or students' prior motivation.

Thus, there is a concern about the instrument comparability. Because the two source surveys shared only a subset of identically worded items, the composite scales were built from a limited number of common items (6 and 5, respectively), which may not fully capture the breadth of either construct.

Another limitation is the absence of formally established content or construct validity for the composites used here: no expert-panel judgment or factor-analytic evidence is available, since these were not originally designed as research instruments but as institutional evaluation surveys.

Finally, another limitation relates to the voluntary, self-selected nature of course-evaluation surveys, which may introduce response bias if students with stronger opinions (positive or negative) were more likely to respond.

Recommendations

It is recommended that future research on this topic use a validated teacher-inventiveness instrument (e.g., with dimensions of originality, pedagogical flexibility, methodological innovation, and use of resources) applied directly to teachers, together with a validated student-learning questionnaire, rather than relying on institutional satisfaction surveys as a proxy.

Besides, data-collection instruments include a reliable, standardized teacher group identifier from the outset, so that future analyses can examine differences across individual teachers rather than only aggregate, group-level associations.

Future studies should consider longitudinal or quasi-experimental designs to examine changes in student learning associated with teaching- process interventions, and could apply regression or structural equation models to estimate the relative weight of each dimension. Complementing questionnaires with interviews, focus groups, or classroom observations would help clarify how innovative and engaging teaching process manifest concretely in university English classrooms.

Finally, it is recommended that future studies expand the sample to several Ecuadorian universities and compare results by region, teaching modality, academic program, and English

proficiency level, in order to generate stronger evidence to inform institutional policies aimed at improving foreign-language teaching.

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