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RESEARCH ARTICLES

Learning Strategies and Teaching Performance in Academic Satisfaction in University Students in Lima

Estrategias de aprendizaje y desempeño docente en la satisfacción académica en universitarios de Lima

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Summary

Academic satisfaction in university students has been studied linking with contextual factors of the educational environment, among others, the teaching of the teacher, support in adaptation, as well as personal factors of the student. The purpose of this study was to estimate the prediction of the influence of student study strategies and teacher performance on the academic satisfaction of psychology students from two public universities in Lima, Peru. 161 university students of the degree in psychology participated, from two public universities in Lima, 46 men and 115 women, who answered three self-report scales, one on learning strategies, another on the performance of their teachers, and the third on academic satisfaction. The three scales obtained high internal consistency indices. The method used includes a non-experimental, explanatory design, to determine the incidence of the variables study strategies and teaching performance, on the variable academic satisfaction, through linear regression analysis. The results showed that, with a statistical significance level of 5% ($p < .000$), the two predictor variables significantly affected academic satisfaction. Based on the results, it is concluded that teaching performance and student learning strategies have a significant impact on the academic satisfaction of psychology students at two public universities in Metropolitan Lima.

Keywords: Learning strategies; Teaching performance; Academic satisfaction; University students; Psychology.

Resumen

La satisfacción académica en estudiantes universitarios ha sido estudiada vinculando con factores contextuales del ambiente educativo, entre otros, la enseñanza del docente, apoyo en la adaptación, así como factores personales del estudiante. El propósito de este estudio fue estimar la predicción de la influencia de las estrategias de aprendizaje del alumnado y el desempeño docente sobre la satisfacción académica de estudiante de psicología de dos universidades públicas de Lima, Perú. Participaron 161 estudiantes de universitarios de la licenciatura en psicología, de dos universidades públicas de Lima, 46 hombres y 115 mujeres, quienes respondieron tres escalas de auto reporte, uno sobre estrategias de aprendizaje, otro sobre desempeño de sus docentes y el tercero sobre satisfacción académica. Las tres escalas obtuvieron índices de consistencia interna alta. El método empleado comprende un diseño no experimental, explicativo, para determinar la incidencia de las variables estrategias de estudio y desempeño docente, sobre la variable satisfacción académica, a través del análisis de regresión lineal. Los resultados mostraron que, con un nivel de significancia estadística del 5% $p < .001$, las dos variables predictoras afectaron significativamente a la satisfacción académica. A partir de los resultados se concluye que el desempeño docente y las estrategias de aprendizaje del alumnado inciden significativamente en la satisfacción académica de los estudiantes de psicología en dos universidades públicas de Lima Metropolitana.

Palabras claves: Estrategias de aprendizaje; Desempeño docente; Satisfacción académica; Estudiantes universitarios; Psicología.

INTRODUCTION

There are several conceptions of satisfaction, specifically academic satisfaction; for this work, we take the definition by Kantor and Smith (2015), who define satisfaction as a type of affective feeling behavior that is a consequence of its interaction with objects, people, or situations, which stimulate pleasant and exciting feelings. In Kantor and Smith's (2015) terms, "feeling interactions constitute a good part of our psychological behavior. It follows, therefore, that the stimulus functions for feeling responses reside in every possible type of object and circumstance" (p. 247). That is, the satisfaction feeling is how a person adjusts (affectively) to situations, persons, or objects with which this person comes into functional contact or with which this person was in contact in the past. In the first case, this person manifests in some way what this person is experiencing while interacting, and in the second case, this person reminisces about past events or situations.

In this educational environment, academic satisfaction includes ways in which students value their teaching and learning environment and their educational experiences, especially enjoyment, well-being, social integration, academic adaptation, and academic success, as components of overall life satisfaction (Huebner et al., 2001; Lent & Brown, 2008; Lounsbury et al., 2004; Vergara-Morales et al., 2018). In this sense, students achieve optimal academic satisfaction based on their positive educational experiences, adequate socialization, and success they achieve in their courses.

Likewise, regarding academic satisfaction, studies have been oriented to identify, through self-reports, students' feelings about events, relationships with other people, and their way of acting in in-person or virtual school-based education. Therefore, academic satisfaction has been studied with more emphasis on three main dimensions or aspects: 1) school and the pedagogical environment in general, 2) teaching skills and teaching practices, and 3) student physical and psychological well-being.

Regarding student satisfaction with school and the pedagogical environment, several studies have been reported. One of the studies with a significant impact in the Latin American context for the assessment of academic satisfaction was the questionnaire reported by Sisto et al. (2008). This instrument identifies as main categories of academic satisfaction in Brazilian university students, the perception of the pedagogical environment, and the affectivity of teaching, among other aspects. Adaptations were made with Argentine students (Medrano & Pérez, 2013) and Peruvian students (Tacca-Huamán et al., 2019; Tacca-Huamán et al., 2020a), obtaining a validated scale of eight items, to identify the student academic satisfaction with the pedagogical environment.

To measure the satisfaction of university students in the Dominican Republic with their educational environment, Tomás y Gutiérrez (2019) adapted and validated the school satisfaction scale that Nearchou et al. (2014) validated for the context of basic education in Greece. Similarly, Cornillez (2019) reported a study on general academic and tuition fee allowance satisfaction in Filipino university students.

From another perspective, the studies conducted by Pecina (2017), Ebrahim (2020), and Rachmawati et al. (2017) studied the contextual conditions and considered them predictors of academic satisfaction with teaching, as well as curricular training contents in this discipline. Likewise, the studies conducted by Márquez et al. (2011), Pecina (2017), Hysaj et al. (2019), García et al. (2019) and Ramírez et al. (2020) coincide on determining that academic satisfaction can be explained by the supervision or tutoring practice and the didactic strategies of the teacher.

For the study of satisfaction with one's performance as a student, several studies have been reported on the students' assessment of their satisfaction with their academic development and university experience. Authors like Nauta (2007) and Urquijo and Extremera (2017) point out that this type of academic satisfaction expresses the degree of well-being of the students with their performance.

Furthermore, in a study with American Engineering-degree university students, Lent & Brown (2008) pointed out that student satisfaction can be assessed both in general academic aspects and aspects of their academic experience. In the first case, satisfaction is with general aspects of academic life, for example, "I am satisfied with my university life," while, in the second case, satisfaction is with specific aspects of their academic development, for example, "I am satisfied with my performance in completing my assignments in the course 'x' during this semester." This proposal for measuring academic satisfaction with the student's performance has been adapted and applied in research with Argentine and Chilean students.

In this regard, Medrano & Pérez (2013) integrated Lent & Brown's (2008) scale into a computerized system to evaluate academic satisfaction of Argentine university students with the well-being and enjoyment they perceive, as well as academic adaptation when they perform activities linked to their role as students. Likewise, Vergara-Morales et al. (2018) adapted and validated the academic satisfaction scale of Medrano & Pérez (2013) in Chilean university students to identify satisfaction with the subjects that students were taking at that time.

Measurement of student performance in academic and tutoring activities has also been planned as a dimension of academic satisfaction. In the Mexican context, Márquez et al. (2011) reported that medical and psychology students expressed high satisfaction with their role in tutoring, which indicates satisfaction with their performance or function as tutored students. In Peru, Merino-Soto et al. (2017) validated a scale that evaluates university student satisfaction with 1. their way of studying, 2. their performance, and 3. their overall experience with their studies.

From this perspective, Merino-Soto et al. (2017) show that an important source of academic satisfaction is the way of studying, that is, the use of efficient strategies to study. It is precisely this variable that has been studied the least when analyzing academic satisfaction. An exception is the work reported by Dominguez-Lara y Campos-Uscanga (2017) on the relationship between satisfaction with studies and academic procrastination in Peruvian psychology students as they found that the higher the satisfaction, the lower the procrastination. Thus, they note that academic satisfaction is also a motivational source for the timely fulfillment of activities.

Influence of Teacher Performance

The role of the contemporary teacher is vital as a mediator of student learning. Teaching as mediation implies creating opportunities for developing attitudes and skills. Thus, the socioemotional and pedagogical competencies of the teacher, tutor, or internship supervisor and the educational resources in the university context have also been evaluated as sources of academic satisfaction. In this regard, Márquez et al. (2011) found that Mexican medicine and psychology students showed higher satisfaction with the content reviewed in tutoring and said that they were less satisfied with the time allocated for case review and the evaluation process. It should be noted that the curricular content, the time allocated for case review, and the evaluation process are characteristics of the teaching-learning processes.

In a study with nursing students in Mexico, Pecina (2017), included four essential factors of teaching and associated resources as elements of academic satisfaction: learning content, methodology (didactic activities and resources), available infrastructure and teacher performance. The students showed higher satisfaction with infrastructure and IT services, followed by teacher performance and academic activities (methodology).

Similarly, Ebrahim (2020) evaluated the academic satisfaction of Iraqi nursing students in three dimensions: satisfaction with clinical training, satisfaction with classroom teaching, and satisfaction with support and resources. Rahmatpour et al. (2021) sought to assess the academic satisfaction of nursing graduate degree candidates in Iran and included four dimensions: 1. Nursing curriculum, 2. Academic interactions, 3. Teaching and learning, and 4. Educational facilities. The first three dimensions are oriented to assessing satisfaction with teaching, including the curriculum and the performance competencies of their teachers.

Hysaj et al. (2019) conducted a study with engineering university students from Dudai and evaluated academic satisfaction based on the effectiveness of tutor support. They found that tutoring practice is a determinant of university students' satisfaction feelings. Similarly, García et al. (2019) identified the academic satisfaction of medicine students in southeastern Mexico as dependent on teacher performance and tutoring. They found that 67% are satisfied with the academic attention given by teachers and that, of the 60% of students who said they received tutoring, 70% said they were satisfied.

Ramírez et al. (2020) designed and validated in psychology students in Mexico the assessment of the influence on academic satisfaction. They found two central elements of university teaching: the first, called "facilitator's role," comprises supervision activities, evidence review, and mastery of psychological strategies and techniques, and the second, called "didactic strategy," includes cooperative work and the use of pedagogical and digital strategies, demonstrating the influence of these variables on academic satisfaction.

Teacher performance in didactic interactions at a university level in general has been evaluated using self-reporting. It describes their behavior and competencies to promote learning; that is, it focuses, to a greater extent, on understanding and explaining teaching practice, instructional processes, and teaching quality from self-reporting scales or observational records

(Bazán-Ramírez & Velarde-Corrales, 2021; Gitomer, 2019; Nasser, 2017; Simpson & Bester, 2017; Van de Grift et al., 2017).

Influence of Learning Strategies

The strategies a student employs to study, also called self-regulated learning strategies, have been a fundamental variable in understanding how learning is achieved or academic achievement is obtained (Broadbent & Poon, 2015). It is defined as a self-generated ability to control, manage, and plan learning actions (Zimmerman, 2008). The ability to manage these strategies can be classified into cognitive, metacognitive, and resource management types (Puzziferro, 2008) and their application predicts high academic achievement (Panadero et al., 2017; Richardson et al., 2012). The use of learning strategies in university students acquires certain characteristics that differentiate it from other educational levels since it requires a greater ability to participate autonomously and actively in their study process (Wang et al., 2013), which is key to knowing which strategies will benefit it. Broadbent y Poon (2015) made a systematic review to know the effects of self-regulated learning strategies in the academic attainment of higher education students in the context of online education. Their review covered publications from 2004 to 2014, collecting 130 articles and filtering a final list of 12 studies of prospective, experimental, and cross-sectional designs. The weighted average correlation (r) was employed to standardize the multiple measurements.

The results of the systematic review indicate statistically significant relationships and weak correlations between academic attainment and the following learning strategies: 1- Metacognition, in which the student identifies when s/he gets confused and consciously goes back to review the material (r = .06), 2- Time management to plan study tasks (r = .14), 3- Effort regulation when persisting in the face of academic challenges (r = .11), 4- Critical thinking (r = .07), and 5- Seeking help or assistance in the face of academic challenges (r = .09). The strategy that obtained the highest magnitude was collaborative or peer learning (r = .30), supported by four studies that seem representative due to their near-zero heterogeneity. The learning strategies that did not obtain statistically significant relationships were: 7- the strategy of integrating new information with past information (r = .00); 8- rehearsal or repetition (r = - .03); and 8- highlighting main points during learning (r = .00). The identification of the most effective learning strategies (Broadbent & Poon, 2015) is an essential guidance tool for current research.

The original version of the ACRA learning strategies questionnaire (Román & Gallego, 1994) was used in the Peruvian university context. For example, Asencios-Domínguez y Rivas-Díaz (2022) evaluated the relationship between learning strategies and achievement of generic competencies in 96 nursing students from a public university in Lima. The relationship between the achievement of competencies and cognitive learning, metacognitive, and affective strategies was demonstrated. Fuster-Guillén et al. (2021) evaluated the effect of cognitive learning strategy on academic stress in 201 randomly selected university students. The results indicate that most students did not apply any information acquisition, information encoding, information retrieval, or process support strategies. Regarding effects, it seems that the use of the information encoding strategy is the most related to high-stress levels.

Fernandez (2021) conducted a longitudinal study to test the effect of language learning strategies (LLS) on English proficiency and their perception of teacher online performance in a university in Lima. The sample consisted of 27 students for the control group and 23 for the experimental group. The instruments applied were the Oxford Strategy Inventory for Language Learning (SILL) and the Oxford Placement Test for English proficiency. The post-test evaluation found statistically significant differences between the control and experimental groups in the following language learning strategies: memory, cognitive, compensation, and metacognitive. Regarding teacher performance, respondents reported positive experiences in terms of tutoring support, feedback, incentives to participate, and access to the class recording.

As can be inferred, university student strategies used in their various study activities impact their learning attainment. Therefore, they may or may not be a source of student satisfaction. These strategies involve skills and competencies that can be relatively stable and are adapted to the circumstances of the study, topic, or curricular content, novel situations regarding the conditions and topics of classroom or practice learning, and the type of demand or level of functional aptitude that the teacher and the student establish, according to attainment and the criteria that must be satisfied to reach such attainment.

Taking into account the above, the objective of this study was to determine the influence of student learning strategies and teacher performance on the academic satisfaction of psychology students at two public universities in Lima and the influence of each one on academic satisfaction.

METHOD

Type of Study

This study was of a quantitative approach, explanatory level and basic type, with a non-experimental design since it analyzed the current state of the variables, looking for evidence of the influence of the learning strategies and teacher performance variables on the academic satisfaction of university students in Lima, without generating changes in reality (Sánchez et al., 2018).

Participants

The sample in this study was non-probabilistic and was obtained by voluntary participation of the students from the sections assigned by the authorities of the psychology school of both universities. A total of 161 psychology university students at two public universities in Lima, 46 men and 115 women, participated in the study. Eighty-eight came from university number 1 and 73 from university number 2. The students were in their third and fourth years of studies (sixth and eighth terms) in the academic year 2019 - 2 (from August to December). Of the total number of students surveyed, 45% of the students aged between 19 and 20, 51% between 21 and 25, and 4% between 26 and 40.

Instruments

The following instruments were used:

ACRA-Abbreviated Learning Strategies Scale.
The ACRA-abbreviated self-report scale (De la Fuente & Justicia, 2017; Román & Gallego, 1994), adapted to the Peruvian context by Altamirano (2006), consisting of 44 items organized into three dimensions, was used. Each item had four response options: 0 = never or rarely, 1 = sometimes, 2 = quite often (many times), and 3 = always. Content validity in this study was obtained by five expert judges, with a validity value of 0.87 by expert judges. Likewise, acceptable internal consistency indices were obtained in each dimension. Cronbach's alpha coefficient in each dimension was: cognitive and learning control strategies $\alpha = 0.87$, learning support strategies $\alpha = 0.79$, and study habits $\alpha = 0.77$. The overall consistency index was high ($\alpha = 0.89$).

Abbreviated Teacher Performance Scale.
A shortened version of the scale for assessing teacher didactic performance in psychology classes, validated by Bazán-Ramírez y Velarde-Corrales (2021) was adapted. The original version included five dimensions: exploration of competencies, explicitness of criteria, illustration, feedback, and evaluation. This study made an adaptation and formed a single dimension of 18 items in a Likert format with four values: never, rarely, nearly always, and always. Five expert judges were asked to estimate the content validity and obtained an average value of 0.83. Likewise, a good overall Cronbach's alpha index was obtained: $\alpha = 0.77$ for internal consistency.

Academic Satisfaction Scale.
A 12-item self-report scale was developed by Montes de Oca e Inga (2019) to evaluate academic satisfaction in three dimensions: classroom learning activities, academic tasks, and teaching-learning strategies. The classroom learning activities dimension refers to the fact that students enjoy learning experiences and perceive classroom situations as pleasant. Likewise, learning is visualized as beneficial (Palomera et al., 2017). The academic tasks dimension is linked to overcoming the academic demands of the course or study term, and the applicability in the world, according to Tacca-Huamán et al. (2020b), and the teaching-learning strategies dimension refers to the degree of satisfaction with teacher-student interaction, the didactic strategies oriented to the characteristics of the students.

The participants' responses are assessed in a 4-level gradation: a) strongly agree, b) agree, c) partially agree, and d) disagree. Five expert judges evaluated the content validity and obtained an expected validity index of 0.87. A high overall internal consistency of the scale ($\alpha = 0.94$), as well as good Cronbach's alpha coefficient indices for each of the scales of the academic satisfaction instrument (classroom learning activities $\alpha = 0.75$, academic tasks $\alpha = 0.96$, and teaching-learning strategies $\alpha = 0.96$) were obtained.

Three printed booklets (one for each instrument), answer sheets (one for each instrument), pencils and erasers, and informed consent forms were also used.

Procedure

Authorization was requested from the authorities of each psychology school at the two public universities and the schedule for the application of the instruments was coordinated. The research team consisted of three principal researchers with Ph.D. degrees in psychology and experts in education, three psychology graduates with experience in educational psychology, and two educational psychology graduates.

Once the authorities assigned the sections to the research team, each section was visited to explain to the participants the purposes of the study and the ethical considerations of their participation. Each student freely decided whether or not to participate in this study, if they had decided to participate.

The information was gathered with the research team entering the classrooms to explain the objectives and procedures of the study, request voluntary participation, and obtain the informed consent signed by the participants who agreed to participate in the study. The instruments were applied collectively to the students, according to their section. Teams of two applicators per classroom were formed. Printed booklets, answer sheets, pencils, and pens were used for the application. The applications were carried out in the same period in both universities, taking care to collect information in both the morning and afternoon shifts.

Data Analysis

Given that high and significant correlations between the dimensions or factors of learning strategies and academic satisfaction scales were obtained, a general index was taken in both measurements. Thus, three general indexes were formed, one for learning strategies, one for academic satisfaction, and one for teacher performance.

Multiple regression analyses were made using these three indexes and version 26 SPSS to evaluate the effect of learning strategies and academic performance (predictor variables) on academic satisfaction in university students in Metropolitan Lima. Likewise, regression analyses were made between the two predictor variables separately and satisfaction, considering the students' gender and university of origin.

RESULTS

The majority of students assessed high their academic satisfaction (76%) and the performance of their teachers (82%). The learning support strategies dimension was the one with the highest frequency of learning strategies, with 41% predominance in the sample.

Table 1 shows the results of the linear regression analysis considering learning strategies and teacher performance as predictor variables and academic satisfaction of psychology students at two public universities in Lima as variables to be predicted. A coefficient of determination $R^2 = 0.228$ was obtained, indicating that 22.8% of the total variability observed in academic satisfaction can be attributed to the teacher performance and learning strategies variables.

According to the results in Table 1, a *p*-value < .001 was obtained, thus rejecting the null hypothesis of no relationship between the variables and suggesting that learning strategies and teacher performance (as perceived by the students) have a statistically significant influence on self-assessed academic satisfaction.

Regarding the influence of learning strategies and teacher performance on academic satisfaction in two public universities in Lima, using the ANOVA model, a regression of 11.976 was found, with a degree of freedom 2, a quadratic mean of 5.998, and an F value of 23.271, significant at .000.

Table 1.
Influence of learning strategies and teacher performance on academic satisfaction in two public universities in Lima.

No.	ANOVA Model**	Sum of squares	gl	Root mean square	F	Sig.
1	Regression	11,976	2	5,988	23,271	,000*
2	Residual	40,656	158	,257		
	Total	52,632	160			

*Predictor variables: (Constant), Strategies, Performance.
** Dependent variable: Y Satisfaction.
Source. Elaborated by the author.

The results of the predictive capacity of the relationship between learning strategies and academic satisfaction are showed based on the students' gender. An explained variance of 16% attributed to learning strategies in predicting academic satisfaction is identified in male students, an influence that shows statistical significance (p = .006). In this case, the null hypothesis of no relationship is rejected. The variance attributed to learning strategies is 7% for female students, and statistical significance is also observed (p = .005), implying the rejection of the null hypothesis of no relationship with learning strategies. The details of this result can be found in Table 2.

Table 2.
Linear regression between learning strategies and academic satisfaction according to gender

Model	Sum of squares	gl	Root mean square	F	Sig.
Male					
Regression	2,226	1	2,226	8,406	,006
Residual	11,652	44	,265		
Total	13,878	45			
Female					
Regression	2,638	1	2,638	8,384	,005
Residual	35,560	113	,315		
Total	38,198	114			

Source. Elaborated by the author.

Table 3 shows the results of the regression analysis designed to examine whether learning strategies influence academic satisfaction, according to the university of origin. The findings indicate that learning strategies have a 9% attributed influence on academic satisfaction for students from university 1 (*p* = .005). For students from university 2, 10% of the variance in

academic satisfaction was explained by learning strategies (p = .008). There was statistical significance in both cases, so the null hypothesis of this relationship is rejected.

Table 3.
Linear regression between learning strategies and academic satisfaction according to university of origin

Model	Sum of squares	gl	Root mean square	F	Sig.
University **number 1**					
Regression	3,267	1	3,267	8,351	,005
Residual	33,646	86	,391		
Total	36,913	87			
University **number 2**					
Regression	1,445	1	1,445	7,557	,008
Residual	13,574	71	,191		
Total	15,018	72			

Source. Elaborated by the author.

Regarding the relationship between academic performance and academic satisfaction, Table 4 and Table 5 present the results of the regression analysis between these two variables, considering gender and university of origin.

Table 4 shows that considering the students' gender, the perception of teacher performance predicts the academic satisfaction of students at two public universities in Lima, both in the male and female groups. A p-value < .05 was obtained in both cases.

In the first case, the coefficient of determination R^2 (35.4) indicates that approximately 35% of the variation in academic satisfaction is attributed to teacher performance perceived by the male students, and in the second case, a coefficient of determination R2 = 14.3 was obtained, indicating that approximately 14% of the variation in academic satisfaction is attributed to teacher performance perceived by the females.

Table 4.
Linear regression between teacher performance and academic satisfaction according to gender

Model	Sum of squares	gl	Root mean square	F	Sig.
Male					
Regression	4,908	1	4,908	24,077	,000
Residual	8,970	44	,204		
Total	13,878	45			
Female					
Regression	5,457	1	5,457	18,834	,000
Residual	32,741	113	,290		
Total	38,198	114			

Source. Elaborated by the author.

Table 5 presents the results of regression analysis between teacher performance and academic satisfaction of students according to their university of origin. The following regression coefficients were found for **University 1**, 20% of the variability of academic satisfaction is attributed to teacher performance, while for **University 2**, 16% of the variability of academic

satisfaction was attributed to teacher performance. The relationships found were statistically significant for both universities.

Table 5.
Linear regression between teacher performance and academic satisfaction according to university of origin

Model	Sum of squares	gl	Root mean square	F	Sig.
University **number 1**					
Regression	7,526	1	7,526	22,024	,000
Residual	29,387	86	,342		
Total	36,913	87			
University **number 2**					
Regression	2,380	1	2,380	13,372	,000
Residual	12,638	71	,178		
Total	15,018	72			

Source. Elaborated by the author.

DISCUSSION

According to the primary objective of this study, the results obtained support the assumption that the learning strategies self-assessed by the students and the teacher performance (perceived by the students), collectively, influence moderately on the academic satisfaction of psychology students at two public universities in Metropolitan Lima. It is also evident that, independently, the learning strategies and teacher performance variables are predictors of academic satisfaction. They even predict such satisfaction according to gender and university of origin.

A first possible explanation for these results may be the fact that students who perceive that they have better study strategies are more likely to feel more satisfied with their performance during their university studies. As third- and fourth-year students (6th and 8th terms), it is more feasible that they value, based on their experiences and academic attainment, their academic satisfaction as an effect of studying with better resources ("cognitive and metacognitive") (Barbosa et al., 2019; De la Fuente & Justicia, 2017; Román & Gallego, 1994; Weinstein et al., 1987). Thus, their satisfaction with their role as a student and their way of studying and performing their university activities (Márquez et al., 2011; Medrano & Pérez, 2013; Merino-Soto et al., 2017) would be influenced by their experience and mastery of such strategies and skills, and the role development as a university student.

Furthermore, the results of this study are supported by the theoretical perspective of Huebner et al. (2001) and Lent & Brown (2008), assert that the learning strategies that students employ in university influence how they value their well-being and satisfaction with their academic experience and their performance in university.

Thus, academic satisfaction is understood as a term that describes ways in which students value their learning environments and their educational experiences, such as well-being and enjoyment, academic adaptation, social integration, persistence, academic performance and

success, and permanence in the formative processes, as a component of overall satisfaction with life (Morales & Chávez, 2019; Tomás & Gutiérrez, 2019).

Likewise, for the hypothesis of the influence of teacher performance on academic satisfaction, there is evidence that the perception of teacher performance that meets their expectations and that is always or nearly always of high-quality influences high academic satisfaction linked to their training in the school. Thus, it can be analyzed, based on several studies, that a teacher who creates and organizes meaningful learning opportunities and is perceived as a teacher with good performance promotes academic satisfaction in their students. This is supported by the research conducted by Sánchez et al. (2022) who found evidence of a relationship between higher teacher job performance associated with a higher level of motivation for studies and higher academic satisfaction of students. In this sense, the socioemotional interaction and the teacher pedagogical interaction become essential to improve student satisfaction with their learning attainments and other university experiences, contributing to their professional training at psychology schools.

For example, considering that always or nearly always in their classes, *"The teacher teaches different ways in which the criteria of the attainment of classroom activities can be met,"* or *"After the explanation of the class and the practice, the teacher gives us suggestions to improve our performance,"* may make it more likely that the students sustain a high frequency of satisfaction with the academic training they receive, for example, *"I am satisfied with the opportunities provided by the teacher to express my opinions in the classroom activities,"* or *"I am satisfied with the quality of the strategies applied by the teacher because they meet my expectations about the course."*

Findings from other studies have showed that university students have reported using self-reports good indexes of reliability and validity, their assessment of the performance of their teachers in university teaching, not only in terms of its quality but also in terms of didactic competencies and their influence on the learning and academic attainment of university students from different degree programs (Bazán-Ramírez & Velarde-Corrales, 2021; Nasser-Abu, 2017; Simpson & Bester, 2017; Van de Grift et al., 2017).

It has been noted the influence of teacher performance and learning strategies on academic satisfaction at a predictive level of 22%. The remaining explanatory variability may reside in other variables, such as the infrastructure of the educational institution, its extracurricular benefit offerings, the social-cultural environment that can be generated in university spaces, etc. (Morales & Chávez, 2019). It is crucial to consider that the academic satisfaction variable is complex, so the influence of other variables may be present. Even so, there are some studies in which teacher performance is also valued by the students as part of an academic context that meets expectations of a good curricular structure, facilities, and educational resources that will influence good teaching (Mohammed, 2020; Pecina, 2017; Rahmatpour et al., 2021) and also as sources of supervision and tutoring in their professional training (García et al., 2019; Hysaj et al., 2019; Márquez et al., 2011; Pecina, 2017; Ramírez et al., 2020).

Although the contributions of this study allow an understanding of the academic satisfaction of university students as an effect of the learning strategies they apply and their

perception of the good performance of their teachers, future studies should expand those of this study, related, for example, to the lack of analysis of sources of factorial invariance by gender and university of origin, and also include the year of study as possible sources of variation in the measurement of these three variables of the study.

Regarding the gender variable, the variation in academic satisfaction is attributed to teacher performance perceived mainly by the group of male students (35%) and, in the second case, only half of this percentage of the variation in academic satisfaction is attributed to teacher performance perceived by the female group. These differences imply that while male students' academic satisfaction depends significantly on teacher performance, females find other sources of academic satisfaction more potent, which according to the aforementioned studies could be their academic performance and peer socialization experiences.

As a conclusion of this study, it can be stated that the results support the hypothesis that both self-assessed learning strategies and teacher performance perceived by students have a significant predictive effect on self-assessed academic satisfaction. This is inferred by exploring the causal relationship between these variables in the context of psychology students at two public universities in Metropolitan Lima.

The findings indicate that students who employ advanced cognitive strategies, such as the creation of mental and conceptual maps and active reflection on their learning efficacy, tend to experience higher academic satisfaction.

In addition, the use of affective self-regulatory strategies to maintain motivation toward academic attainment is also positively related to academic satisfaction.

Likewise, students' perception of teacher performance competence in their socioemotional and pedagogical interaction is a predictor of academic satisfaction. This influence relationship highlights the importance of effective communication and strong teacher-student interaction in fostering a healthy environment with a positive emotional climate for learning.

One of the limitations of this study was how the sample was obtained because, for reasons of coordination with the authorities, we worked only with some classrooms and did not have access to others for academic reasons.

A future line of research could include the analysis of other personal and contextual conditions taken from the source of students and, separately, teachers to directly evaluate preferences and performance and their influence on each other to promote a higher quality education that positively impact the socioemotional and pedagogical development of the teacher, and the life of students.

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