



Exploring teacher job satisfaction in five Latin American countries: A Multi-level analysis using TALIS 2018

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ABSTRACT

This study investigates teacher job satisfaction in Chile, Argentina, Colombia, Mexico, and Brazil, using data from the 2018 Teaching and Learning International Survey. Through multi-level analysis, it examines individual and organizational factors influencing job satisfaction. Findings indicate that teacher cooperation and self-efficacy enhance job satisfaction, while workplace stress detracts from it. Positive teacher-student relationships and stakeholder involvement are identified as essential organizational factors. These results underscore the importance of supportive environments and collaborative practices in improving teacher well-being and retention. Implications for policy and practice are discussed, offering insights to boost job satisfaction and educational quality across diverse educational settings.

Introduction

Teacher job satisfaction has emerged as a relevant issue for educational systems worldwide, given its impact on multiple aspects of school organization and on the quality of the education provided. Research has highlighted the importance of understanding and addressing this phenomenon to ensure the success of educational institutions (Fütterer et al., 2023; Sahito & Vaisanen, 2020; Wang et al., 2019).

The literature on predictors influencing job satisfaction is extensive. These factors include personal and professional characteristics of teachers, such as teaching experience, self-efficacy, training or stress (Toropova et al., 2021; Skaalvik & Skaalvik, 2010). They also include organizational factors such as professional development barriers or leadership (Smet, 2021; Liu et al., 2021). Understanding these factors is necessary to maximize teacher well-being (Madero, 2019; Martínez-Garrido, 2017).

In their systematic literature review, Hoque et al. (2023) identified 32 empirical studies showing that more job satisfied teachers are more willing to engage in their classes, provide better emotional support to students, and collaborate more effectively with their colleagues. This contributes to school improvement and, ultimately, in student academic achievement.

Additionally, job satisfaction has been studied as a predictor of

teacher retention in their schools and in the system (Madigan & Kim, 2021). Therefore, knowing the factors that influence teacher satisfaction can help identify strategies to retain and motivate teachers, thus mitigating the teacher shortage in the region (González-Escobar et al., 2020). This phenomenon of low satisfaction rates, often attributed to extreme burnout of educational personnel and an undervaluation of the teaching profession, has resulted in a decrease in the number of students opting for careers related to pedagogy (Carver-Thomas & Darling-Hammond, 2017).

Internationally, teacher job satisfaction levels vary. Data such as those presented by OECD (2020) and Zakariya et al. (2020) reveal discrepancies where countries such as Spain, Chile, Australia and Vietnam show higher satisfaction rates, while others such as England, Malta, South Africa and Japan show lower levels. These differences can be attributed to various factors, ranging from educational policies to work cultures and socioeconomic conditions.

Latin American countries have diverse educational systems shaped by cultural diversity and political influences, which may lead to differences in teacher satisfaction levels. Despite the differences noted above, Latin America faces common challenges that have an effect in education, such as socioeconomic disparities (CEPAL, 2022; IADB, 2020) and political instability (Abofarha & Nasreldin, 2022). These factors may influence teachers' job satisfaction (Edinger & Edinger, 2018; Liu et al.,

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2023) which requires exploration.

In summary, the study of teacher job satisfaction in Latin America allows improving the quality of education, addressing the educational challenges of the region, ensuring the stability of the teaching force and adapting educational policies to local realities.

The following study aims to identify individual and organizational predictors of teacher job satisfaction in five Latin American countries (Chile, Argentina, Colombia, Mexico, and Brazil) belonging to the OECD, using data from the 2018 Teaching and Learning International Survey (TALIS). The central question that will guide this research is: What are the factors, both individual (teacher level) and organizational (school level), that affect teacher job satisfaction in these five Latin American countries?

Focusing on a coherent regional cluster is also theoretically justified. Comparative evidence from TALIS 2013 shows that collegial collaboration and participatory school climates exert stronger protective effects against dissatisfaction in Latin-American contexts than elsewhere (Madero, 2019). More recent work in Ecuador demonstrates unique interactions between intrinsic and extrinsic conditions, underlining the need for culturally grounded models (Muñoz-Fernández et al., 2025). By analysing the five largest systems in the region, the present study addresses this documented gap while leaving broader cross-regional comparisons for future research.

Teachers' job satisfaction

Although job satisfaction has been a widely studied field, there is still little consensus on its definition and on the magnitude of the effect of the factors that influence it, which underscores the complexity and multidimensionality of this phenomenon (Liu et al., 2023).

From an organizational perspective, job satisfaction is understood as the degree of enjoyment and gratification that a person experiences in relation to the conditions in which he or she carries out his or her professional work (Pepe et al., 2017). This approach emphasizes the work environment, institutional policies, relationships with colleagues and other aspects related to the organization in which the individual works.

From the individual perspective, job satisfaction is understood as the positive emotional state of people in relation to their work (Locke, 1976). This approach focuses on the intrinsic satisfaction that workers find in the tasks they perform, the sense of accomplishment they experience and their alignment with personal and professional values (Ainley & Carstens, 2018).

Efforts have been made to measure teacher job satisfaction in different cultural and political contexts. TALIS (Teaching and Learning International Survey) is a valuable tool for understanding the phenomenon in a comparative manner. In addition to evaluating job satisfaction itself, this survey identifies variables that are considered predictors of job satisfaction.

In this research, individual and organizational factors are distinguished, which will be detailed below and will be taken up again as part of the method.

Teacher-level factors and job satisfaction

Numerous studies have focused on investigating the personal characteristics of teachers in relation to their job satisfaction. These variables include gender, age, teaching experience, training and motivations. However, the results of these investigations have not been consistent, showing varied results for the aforementioned variables (Briones et al., 2010; Saiti & Papadopoulos, 2015). For example, Topchayn and Woehler (2021) suggest that job satisfaction among teachers varies by gender, indicating that women experience higher job satisfaction than men. However, other studies, such as Klassen & Chiu (2010), have found that these differences could be explained by job stress.

Similarly, the relationship between job satisfaction and teacher education has yielded inconsistent results in research. Some researchers

suggest that more experienced and older teachers are more satisfied in their roles (Menon & Athanasoula-Reppa, 2011), while other studies contradict this idea. For example, Ortan et al. (2021) highlight that self-efficacy, working conditions, relationships with colleagues, and school management support play a crucial role in teachers' job satisfaction. These contextual factors can significantly influence job satisfaction, regardless of teacher experience or age, creating a positive work environment that enhances teacher well-being and retention.

Regarding teachers' motivations and self-perception, it has been observed that those with higher self-efficacy, lower levels of stress and higher motivation towards teaching tend to report higher job satisfaction (Kasalak & Dagyar, 2020; Liu & Onwuegbuzie, 2014).

Finally, the study by Banerjee et al. (2017) found that teachers who perceive better collaboration and professional learning communities' development experience higher teacher job satisfaction. The authors suggest that this effective collaboration not only positively influences job satisfaction, but also contributes to the creation of more positive and productive work environments.

School-level factors and job satisfaction

Several studies have examined factors associated with school, leadership, and organization, and their influence on teacher job satisfaction. We know that the socioeconomic level of the educational community, the quality of school climate, and teacher-student relationships have an impact on teachers' job satisfaction (Aldrige, 2016; Türker & Kahraman, 2021; You et al., 2017). Also, student discipline and workload have been revealed to be influential factors in job satisfaction (Madero, 2019; Lopes & Oliveira, 2020).

Other studies have highlighted that the active participation of stakeholders, such as parents and community, contributes to creating a more positive work environment and improving teachers' job satisfaction. Being in some cases one of the most influential predictors (Wang et al., 2019).

Organizations with leaders that care about teacher-student relationships not only foster a sense of community and trust but can also contribute to teacher well-being by creating a more stimulating work environment (Lazcano, Guerrero, & Volante, 2022).

Stress stemming from workload is a major challenge identified in TALIS. High levels of job stress due to excessive workload can lead to job dissatisfaction, burnout, and deterioration of teachers' emotional and physical well-being. It is critical to address this problem by implementing strategies to manage workload and promote a healthy work-life balance (Butt & Lance, 2005).

Team innovation and professional development are also relevant aspects. Teachers' ability to work collaboratively in innovative teams can stimulate creativity and professional growth, which in turn can contribute to greater job satisfaction (Jang et al., 2023). However, barriers to professional development, such as lack of resources, limited time, and restrictive policies, can hinder progress and negatively affect teachers' job satisfaction by limiting their opportunities for professional growth and improvement (Renbarger & Davis, 2019).

Method

Sampling and participants

This investigation delved into the 2018 Teaching and Learning International Survey (TALIS) dataset to assess the effect of organizational and teacher variables on teacher job satisfaction in Chile, Argentina (Autonomous City of Buenos Aires), Colombia, Mexico, and Brazil (OECD, 2019). The TALIS 2018 study utilized a two-level stratified sampling approach, in which schools were first randomly selected, followed by a random sampling of teachers within those schools (OECD, 2019). This sampling strategy ensures that the study accurately reflects the characteristics of the broader educational population, aligning with

our research aims (Johnson & Christensen, 2019). Table 1 shows the number of responses by country.

Variables and measures

All variables included in the study were measured by items from the teacher questionnaire of TALIS 2018. The selection of variables was guided by the TALIS 2018 Technical Report (OECD, 2019) and complemented with a comprehensive data quality analysis. As such, those variables that reported missing values above the established threshold (5%) or exhibited strong bias (kurtosis and skewness), were not considered in the study.

It is important to note that this sensitivity analysis was initially conducted using data from Chile, which was set as the frame of reference for the rest of the analysis. Therefore, the variable selection conducted with Chilean data established the threshold for the other countries in the study. This decision was driven by both interest and methodological considerations. Given the authors' Chilean background, there was a particular interest in comprehending the Chilean case in depth. Additionally, it was methodologically necessary to establish a consistent set of variables to ensure reliable analysis and comparison across countries.

Once this initial step was completed, the research team conducted a content analysis of the selected variables to categorize them as either "teacher-level predictors" or "school-level predictors". To ensure rigor, the process followed two stages. First, each team member independently classified the variables based on their content. Then, the team engaged in collaborative work sessions to discuss and reconcile their classifications, reaching consensus through dialogue. Variables capturing individual teachers' personal experiences, self-perceptions, or classroom-specific practices were classified as teacher-level predictors. In contrast, variables referring to shared norms, organizational practices, or collective perceptions—where the unit of reference was the school—were classified as school-level predictors. This process was informed by the conceptual definition of each construct, and by previous literature, such as the studies by Liu et al. (2023) and Wang et al. (2019), which reached similar conclusions about the level of variables in their analyses.

The analytic sample comprises the five TALIS-2018 participants from Latin America—Chile, Argentina (CABA), Colombia, Mexico, and Brazil—because these are the only systems for which fully harmonised micro-data, weights, and documentation are publicly available in the same survey cycle. Using a single cycle avoids mode or instrument differences that arise when combining datasets (OECD 2019).

Dependent variable

The dependent variable is "Teacher Job Satisfaction", which was measured through a composite teacher scale (T3JOBSA) that contained two subscales: "Job Satisfaction with Work Environment" (T3JSENV) and "Job Satisfaction with Profession" (T3JSPRO). Both subscales followed the question stem "We would like to know how you generally feel about your job. How strongly do you agree or disagree with the following statements?" Responses were recorded on a 4-point Likert scale, where 1 indicated "strongly disagree" and 4 "strongly agree". Each subscale comprised 4 items, resulting in a total of 8 items for the composite scale measuring teacher job satisfaction. Details of these items—as well as those of all variables in the study—can be found in the Appendix section.

Table 1
Respondents per country.

Talis	Chile	Argentina (ACBA)	Colombia	Mexico	Brazil
Teachers	1963	2099	2362	2926	2447
Schools	179	138	157	193	184

Teacher Level Predictors

Teacher Level Predictors include both teachers' individual characteristics and professional characteristics. Individual characteristics include "Gender" (TT3G01; 1= female and 0=male), "Age" (TCHAGEGR), "Experience as a Teacher" (TT3G11B), and "Highest level of Formal Education Completed", from now on "Postgraduate" (TT3GO3; 1=postgraduate and 0=non-postgraduate). Professional characteristics include "Teacher Self-efficacy" (T3SELF), "Teacher Cooperation" (T3COOP), "Workplace Well-being and Stress" (T3WELS), "Needs for Professional Development in Subject Matter and Pedagogy" (T3PDPED), "Personal Utility Motivation to Teach" (T3PERUT), and "Perceptions of Value and Policy Influence" (T3VALP).

"Teacher Self-efficacy" was measured with a composite scale of three subscales: "Self-efficacy in Classroom Management" (T3SECLS), "Self-efficacy in Instruction" (T3SEINS), and "Self-efficacy in Student Engagement" (T3SEENG). Each of them had 4 items on a 4-point Likert-type response, with 1 being "not at all" and 4 "a lot". "Teacher Cooperation" was also measured with a composite scale of two subscales: "Exchange and Co-ordination among Teachers" (T3EXCH) and "Professional Collaboration in Lessons among Teachers" (T3COLES). Each of these subscales had 4 items on a 6-point Likert-type scale, with 1 being "never" and 6 "once a week or more". "Workplace Well-being and Stress" was measured through 4 items on a 4-point Likert-type response, with 1 being "not at all" and 4 "a lot". "Needs for Professional Development" was accounted through 5 items on a 4-point Likert-type, with 1 being "no need at present" and 4 "high level of need". "Personal Utility Motivation to Teach" was measured through 4 items on a 4-point Likert-type response, with 1 being "not at all important" and 4 "of high importance". Finally, "Perceptions of value and policy influence" was measured by 3 items on a 4-point Likert-type response, with 1 being "strongly disagree" and 4 "strongly agree".

School level predictors

School level predictors include school characteristics, as "Publicly or Privately Managed School", from now on "Public" (TC3G12; 1=public and 0=private), "School Location", from now on "Urban" (SCHLOCK; 1=urban and 0=rural), "Number of Enrolled Students", from now on "School Size" (NENRSTUD; for regressions dichotomized in Size 250-499, S500-749, S750-999, S1000 above), and "SES" (T3G35E). They also consider "Teacher-Student Relations" (T3STUD), "Participation among Stakeholders" (T3STAKE), "Workload Stress" (T3WLOAD), "Team Innovativeness" (T3TEAM), "Professional Development Barriers" (T3PDBAR).

"Teacher-student Relations" and "Participation among Stakeholders" were measured through 4 items each on a 4-point Likert response, where 1 was "strongly disagree" and 4 "strongly agree". "Workload Stress" was measured through 5 items on a 4-point Likert response, where 1 is "not at all" and 4 "a lot". "Team Innovativeness" was measured through 4 items on a 4-point Likert response, where 1 is "strongly disagree" and 4 "strongly agree". Finally, "Professional Development Barriers" was measured through 7 items on a 4-point Likert scale, being 1 "strongly disagree" and 4 "strongly agree".

Centering Process

In our analysis, all teacher level predictors were centered using group-mean centering, which involves adjusting each individual score by subtracting the mean score of their respective school (Kreft et al., 1995). This approach ensures that the interpretation of the coefficients reflects the effect of predictors at the within-school level. The decision to employ this methodological approach aligns with the substantive nature of the research question, enabling a focused examination of within-school variations. Additionally, school level predictors were centered using grand-mean centering, where each predictor's scores were adjusted by subtracting the overall sample mean. This technique

facilitates the interpretation of coefficients for level-2 predictors, providing insights into the average effect across all schools and highlighting between-school differences in the outcomes, as recommended by Enders and Tofighi (2007).

Group-mean centering strips Level-1 predictors of their between-school variance. Although Raudenbush and Bryk (2002) recommend adding the corresponding cluster means to recover contextual effects, our goal is explicitly within-school: how a teacher's stress, efficacy, or collaboration—relative to colleagues in the same school—links to that teacher's job satisfaction. Re-introducing the means would (a) duplicate variance already captured by our substantive school-level variables, inflating multicollinearity and muddying interpretation (Bauer & Curran, 2005); (b) rely on aggregated means whose reliability is uneven in TALIS's variable cluster sizes, which can destabilise contextual estimates (Wu, 2005); and (c) add no explanatory value—our robustness check with the ten cluster means produced no significant contextual effects and left γ -coefficients virtually unchanged, echoing Enders and Tofighi's (2007) conclusion that cluster means are redundant when distinct Level-2 predictors are present. We therefore retain group-mean centring without cluster means to isolate clean within-school relationships in a parsimonious model.

Missing Data Treatment

Regarding missing data, we estimated the models with Mplus's two-level WLSMV estimator, which uses a *pairwise-present* routine so that every teacher-school pair responding to a given item contributes to the covariance matrix. All analysis variables had $\leq 5\%$ non-response. Under MAR conditions and such low missingness, simulation studies show that pairwise-present WLSMV and FIML obtain virtually identical coefficients and standard errors (Enders, 2022), while recent guidance for large-scale assessments stresses that the critical issue is to avoid listwise deletion rather than to impute when case loss is minimal (Huang & Keller, 2025). We therefore did not perform additional imputation.

Weight treatment

In this analysis, both teacher-level and school-level sample weights, as well as replicate weights, were incorporated. This approach adheres to established statistical practices for survey analysis, as highlighted by Lohr (2021), who emphasizes the importance of employing sample weights and replication methods for accurate variance estimation, hereby ensuring the reliability and validity of survey-based research findings.

However, the analysis does not include stratum weight adjustments. While stratification offers benefits such as proportional representation of implicit strata in the sample, the investigation could not consider stratum weights due to their confidential status within TALIS (OECD, 2019). The absence of stratum weight adjustments in the analysis could limit the ability to fully account for variations within strata, potentially impacting the precision of variance estimations. Heeringa et al. (2017), emphasize that stratification is pivotal for reducing sampling error and enhancing the accuracy of survey estimates by ensuring proportional representation of subgroups within the population. Thus, this omission underscores the need to recognize potential implications on the generalizability and precision of the findings.

Despite these constraints, the robustness of the TALIS dataset, combined with a comprehensive analytical approach that incorporates both sample and replicate weights, compensates for the absence of stratum weights. Advanced statistical modeling techniques were employed to account for underlying population structures, mitigating potential biases and maintaining the integrity of the findings. This strategic application of available methodologies ensures that the research outcomes are valid and applicable, offering significant contributions to the educational sector without being impeded by the unavailability of stratum weights. Therefore, the study's findings remain relevant and

provide a solid foundation for future research and policy formulation, demonstrating that the absence of stratum weight adjustments does not detract from the study's objectives or the value of its contributions to the field.

Data analysis

In this analysis, R studio version 2024.04.1+748 was used for data preparation, while Mplus version 8.4 was employed to conduct a full multilevel modeling analysis. This approach allowed for the incorporation of a wide array of variables at both the teacher and school level across each country studied, ensuring a robust examination of the factors influencing teacher outcomes.

This approach facilitates a detailed examination of the interplay between individual teacher characteristics and organizational factors in shaping job satisfaction. By capturing these complex dynamics, the model aims to provide insights into educational environments and support the development of strategies to improve teacher well-being.

The within-level (Level 1) model equation for teacher-level predictors is given by:

$$\begin{aligned} JOBSATIS_{ij} = & \beta_{0j} + \beta_1 TCOOP_{ij} + \beta_2 TSELF_{ij} + \beta_3 TWELS_{ij} + \beta_4 PDPED_{ij} \\ & + \beta_5 PERUT_{ij} + \beta_6 VALP_{ij} + \beta_7 AGE_{ij} + \beta_8 TOTALXP_{ij} \\ & + \beta_9 POSTG_{ij} + \beta_{10} GENDER_{ij} + r_{ij} \end{aligned}$$

And the between-level (Level 2) model for organizational-level predictors is specified as:

$$\begin{aligned} \beta_{0j} = & \gamma_{00} + \gamma_{01}STUD_j + \gamma_{02}STAKE_j + \gamma_{03}WLOAD_j + \gamma_{04}TEAM_j \\ & + \gamma_{05}PDBAR_j + \gamma_{06}S250to499_j + \gamma_{07}500to749_j + \gamma_{08}S750to999_j \\ & + \gamma_{09}S1000above_j + \gamma_{10}PUBLIC_j + \gamma_{11}URBAN_j + \gamma_{12}SES_j + \mu_{0j} \end{aligned}$$

In the combined model, we substitute the intercept β_{0j} from Level 2 into the Level 1 equation. Following Huang (2022), this substitution integrates the effects of the organizational-level variables directly into the Level 1 equation. The resulting model reflects how both individual (teacher level) and organizational (school level) characteristics influence teachers' job satisfaction.

By substituting β_{0j} from Level 2 into Level 1, we obtain the combined model:

$$\begin{aligned} JOBSATIS_{ij} = & \gamma_{00} + \gamma_{01}STUD_j + \gamma_{02}STAKE_j + \gamma_{03}WLOAD_j + \gamma_{04}TEAM_j \\ & + \gamma_{05}PDBAR_j + \gamma_{06}S250to499_j + \gamma_{07}S500to749_j \\ & + \gamma_{08}S750to999_j + \gamma_{09}S1000above_j + \gamma_{0,10}PUBLIC_j \\ & + \gamma_{0,11}URBAN_j + \gamma_{0,12}SES_j + \gamma_{10}TCOOP_{ij} + \gamma_{20}TSELF_{ij} \\ & + \gamma_{30}TWELS_{ij} + \gamma_{40}PDPED_{ij} + \gamma_{50}PERUT_{ij} + \gamma_{60}VALP_{ij} \\ & + \gamma_{70}AGE_{ij} + \gamma_{80}TOTALXP_{ij} + \gamma_{90}POSTG_{ij} + \gamma_{10,0}GENDER_{ij} \\ & + \mu_{0j} + r_{ij} \end{aligned}$$

In this model, $JOBSATIS_{ij}$ represents the job satisfaction of the i^{th} teacher in the j^{th} school. The individual teacher level predictors are $TCOOP_{ij}$, $TSELF_{ij}$, $TWELS_{ij}$, $PDPED_{ij}$, $PERUT_{ij}$, $VALP_{ij}$, AGE_{ij} , $TOTALXP_{ij}$, $POSTG_{ij}$, and $GENDER_{ij}$. The school level predictors are $STUD_j$, $STAKE_j$, $WLOAD_j$, $TEAM_j$, $PDBAR_j$, $S250to499_j$, $S500to749_j$, $S750to999_j$, $S1000above_j$, $PUBLIC_j$, $URBAN_j$, and SES_j . Here β_{0j} and γ_{00} are the intercepts, and r_{ij} and μ_{0j} are the error terms at the individual and school levels, respectively.

This model structure, supported by the theoretical framework of multilevel modeling as discussed in Raudenbush and Bryk (2002) and the practical guidance on implementing such models in Mplus provided by Muthén and Muthén (1998-2017), allowed for a nuanced understanding of the complex interplay between teacher and organizational characteristics on teacher job satisfaction across different contexts.

To thoroughly investigate the dynamics affecting teacher

experiences and outcomes across various countries, this study employs a full model that includes variables at both the teacher and school levels. This methodological decision is based on the understanding that teaching and learning are influenced by the complex interplay between individual teacher characteristics and the broader educational context in which they operate. By analyzing variables from both levels within the same model, the approach aligns with current educational research, which highlights the necessity of examining both micro-level personal factors and macro-level institutional factors to gain a comprehensive understanding of educational phenomena (Kreft & De Leeuw, 1998; Snijders & Bosker, 2012). This dual-level analysis allows for the identification of patterns consistent across different educational systems, as well as those unique to specific national contexts, thereby enriching the dialogue on educational improvement and teacher support on a global scale.

To quantify the proportion of variance explained by the multilevel models, the coefficient of determination, R^2 , was computed as proposed by Raudenbush and Bryk (2002). This calculation enables the assessment of the models' effectiveness in capturing the variability in teacher outcomes both across and within schools. The R^2 statistic provides insight into how well the combination of teacher-level and school-level variables predict the dependent variables of interest, offering a clear measure of model fit and explanatory power.

We fitted independent multilevel models for each country rather than a pooled multiple-group model with equality constraints for three methodological reasons. (1) Design heterogeneity: TALIS employs country-specific teacher-to-school sampling ratios and jack-knife replicate weights; combining them in a single model without re-scaling violates the design-based variance logic and can bias standard errors (Carle, 2009; Rutkowski et al., 2014). (2) Unequal residual structure: Null models show substantial cross-national heteroscedasticity at both levels (see Table 3). Formal Wald or LR tests of coefficient equality assume homogeneous residual variances; when that assumption is broken, cross-country comparisons are unreliable unless one fits a much more complex unequal-variance multiple-group model with larger sample requirements (Hox et al., 2017). (3) Policy focus: Our objective is to deliver country-specific effect estimates that ministries and school leaders can act on. Formal tests merely indicate *whether* slopes differ, not *why*; without a theory-driven explanation, statistically significant cross-country gaps often have little practical meaning (Goldstein & Healy, 1995).

Results

The empirical findings described below reveal the correlations between organizational and teacher level variables, and teacher job satisfaction. A detailed correlation analysis was conducted to evaluate these relationships (see Table 2).

The correlation analysis revealed several key trends. Teacher cooperation consistently correlates with higher job satisfaction, with Colombia being a notable exception. Teacher self-efficacy also shows a significant positive correlation across all countries, underscoring its importance in teacher satisfaction. In contrast, poor workplace well-being and stress have an inverse relationship with satisfaction, pointing to stress as a universal detractor. Interestingly, the need for professional development in specific areas appears to be less influential than the broader context of supportive relationships and participatory culture. Barriers to professional development negatively affect job satisfaction, suggesting that impediments to growth are universally problematic. Variances in the correlation of school size and SES with job satisfaction suggest these factors' effects could be context-dependent. Collectively, these correlations underscore the complex interplay of individual attributes and school environments on teacher perceptions of job satisfaction.

We computed intraclass correlation for every predictor using empty random-intercept models estimated separately by country (probit-latent ICCs for binary variables). For school predictors constructed by aggregating teacher reports (e.g., teacher-student relations, stakeholder participation, workload stress, team innovativeness, SES), we report the ICCs of their teacher-level sources prior to aggregation; administrative school indicators (public, size, urban) are constant within schools and therefore have ICC = 1 by construction. As shown in Table 3, most teacher-reported scales exhibit modest between-school clustering (typically ICC $\approx$.03–.18), with larger values for SES and some organizational climate measures, and very low ICCs for gender and post-graduate status on the latent scale..

Building on the correlations and ICCs discussed earlier, attention now shifts to the null model analysis, which serves as a preliminary step in multilevel modeling. Table 4 summarizes the results of this analysis, elucidating the partitioning of variance in teacher job satisfaction between the individual (Level 1) and the school (Level 2) across the five countries.

The null model analysis provides initial insights into the variability

Table 2
Correlation Analysis by country.

Variables	Teachers Job Satisfaction (Chile)	Teachers Job Satisfaction (Argentina ACBA)	Teachers Job Satisfaction (Mexico)	Teachers Job Satisfaction (Colombia)	Teachers Job Satisfaction (Brazil)
Teacher cooperation	.255***	.169***	.212***	.212***	.219***
Teacher self-efficacy	.189***	.287***	.310***	.253***	.295***
Workplace well-being and stress	-.443***	-.430***	-.407***	-.349***	-.514***
Needs for professional development in subject matter and pedagogy	-.056	-.149***	-.166***	-.020	-.164***
Personal utility motivation to teach	-.045	.003	.001	.005	.049
Perceptions of value and policy influence	.211***	.191***	.175***	.181***	.207***
Age	.093	.029	.083	.098*	.139***
Experience as teacher	.073	.010	.034	.076	.134**
Teacher student realations	.303***	.383***	.415***	.374***	.367***
Participation among stakeholders	.269***	.302***	.439***	.395***	.317***
Workload stress	-.244***	-.252***	-.189***	-.242***	-.347***
Team innovativeness	.228***	.187***	.300***	.263***	.261***
Professional development barriers	-.314***	-.188***	-.223***	-.114**	-.339***
School size	.039	.047	.055	.048	-.093*
SES	-.101*	-.071	-.139**	-.041	-.224***

Note. The 'Gender', 'Postgraduate', 'Public' and 'Urban' variables were excluded from the correlation analysis due to their binary nature, which is incompatible with Pearson's correlation assumptions. The 'School Size' variable was analyzed using its original, non-dichotomized format. Significance levels are indicated as follows:

*** $p < .001$

** $p < .01$, and

* $p < .05$

Table 3
Intraclass correlations (ICCs) for all predictors by country.

Variable	Chile	Argentina (CABA)	Colombia	Mexico	Brazil
Teacher cooperation	0.113	0.152	0.104	0.073	0.183
Teacher self-efficacy	0.021	0.026	0.035	0.036	0.032
Workplace well-being and stress	0.085	0.055	0.108	0.081	0.173
Needs for professional development in subject matter and pedagogy	0.035	<0.001	0.014	0.031	0.059
Personal utility motivation to teach	0.034	0.031	0.063	0.036	0.090
Perceptions of value and policy influence	0.025	0.043	0.112	0.022	0.080
Age	0.078	0.060	0.220	0.106	0.129
Experience as teacher	0.077	0.028	0.190	0.111	0.146
Postgraduate (probit latent)	0.131	0.019	0.348	0.082	0.147
Gender (probit latent)	0.028	0.055	0.051	0.020	0.068
Teacher–student relations	0.093	0.090	0.104	0.141	0.121
Participation among stakeholders	0.229	0.116	0.121	0.142	0.168
Workload stress	0.055	0.052	0.104	0.063	0.095
Team innovativeness	0.118	0.035	0.099	0.092	0.108
Professional development barriers	0.104	0.038	0.063	0.041	0.151
Size 250–499	1.000	1.000	1.000	1.000	1.000
Size 500–749	1.000	1.000	1.000	1.000	1.000
Size 750–999	1.000	1.000	1.000	1.000	1.000
Size 1000+	1.000	1.000	1.000	1.000	1.000
Public	1.000	1.000	1.000	1.000	1.000
Urban	1.000	—	1.000	1.000	1.000
SES	0.563	0.497	0.385	0.406	0.461

Notes: (a) ICCs for binary variables (“Postgraduate”, “Gender”) are on the probit latent scale. (b) School-level dummies are constant within clusters, hence ICC = 1. (c) “Urban” not applicable for CABA (—).

of teacher job satisfaction across schools within participating countries. The remarkably consistent intercepts noted in Table 4 suggest comparable average levels of job satisfaction when all predictors are at their mean values. The significant intercepts across countries further underscores this pattern.

Examining the random effects, it is noted that the residual variance, representing the variation in job satisfaction attributable to individual differences within schools, is significant in all countries. This suggests that individual factors have a meaningful impact on job satisfaction. Moreover, the intercept variances, which measure the differences in job satisfaction between schools, are also significant across all countries, though to varying degrees. For instance, Brazil’s data reveal the highest school-level variance, suggesting that the school environment has a particularly strong influence on job satisfaction, while Mexico’s lower variance implies more consistency in job satisfaction experiences across schools.

The intraclass correlation findings further differentiate the sources of

variance. Brazil’s highest ICC suggests school-level factors substantially explain the variability in teacher job satisfaction. Contrastingly, Argentina (CABA) and Colombia’s lower ICCs indicate a stronger influence of individual factors. These distinctions highlight the importance of the data’s hierarchical nature in dissecting teacher job satisfaction and suggest the need for a deeper investigation into specific teacher and school level contributors to these observed disparities.

As outlined in the method section, the analysis encompasses two distinct levels of variables affecting teacher job satisfaction across several Latin American countries: teacher level and school level. The results from the likelihood ratio tests confirm that the full model, incorporating both levels of variables, provides a significantly better fit than the null model in all countries studied. This underscores the importance of both teacher and school factors in explaining the variability in teacher job satisfaction. The comprehensive results of this full model are detailed in Table 5, highlighting how each predictor contributes within these diverse educational contexts.

Teacher level predictors

Teacher cooperation emerges as a significant positive predictor of job satisfaction in all countries. This indicates that the more teachers collaborate and support each other, the higher their job satisfaction. The strength of this effect is particularly notable in Chile ($\gamma = 0.136, p < .001$) and Argentina ($\gamma = 0.128, p < .001$), suggesting that cooperative environments may be especially beneficial in these settings.

Similarly, teacher self-efficacy is universally associated with higher job satisfaction, with Argentina displaying the strongest effect ($\gamma = 0.207, p < .001$). This highlights the importance of teachers feeling competent and effective in their roles, as these perceptions significantly contribute to their overall job satisfaction.

Conversely, workplace well-being and stress demonstrate a robust negative correlation with job satisfaction across the board, highlighting the detrimental impact of stress and poor well-being on teachers’ professional satisfaction. Chile shows the most significant adverse effect ($\gamma = -0.378, p < .001$), indicating that initiatives to improve workplace conditions could be particularly impactful.

The impact of professional development needs in subject matter and pedagogy presents mixed results, with generally non-significant effects. This suggests that while professional development is valued, its direct link to job satisfaction may be influenced by other factors not captured in this specific analysis. Notably, Brazil shows a significant negative effect ($\gamma = -0.063, p < .01$); however, the magnitude of this effect is relatively small, indicating a modest influence on overall job satisfaction.

Personal utility motivation to teach typically shows negative or non-significant effects, implying that personal motivation alone does not strongly correlate with higher job satisfaction. However, it is important to note that in Chile and Argentina (CABA), the effects are significant, though the magnitudes are relatively small. Specifically, the effect in Chile is $\gamma = -0.065 (p < .01)$ and in Argentina, it is $\gamma = -$

Table 4
Null Model by country.

	Chile Coefficient (SE)	Argentina (ACBA) Coefficient (SE)	Colombia Coefficient (SE)	Brazil Coefficient (SE)	Mexico Coefficient (SE)
Intercept (γ_{00})	12.079 (0.074)***	12.063 (0.064)***	12.107 (0.058)***	12.124 (0.065)***	12.063 (0.050)***
Random Effects					
Residual (σ^2)	3.649 (0.126)***	2.759 (0.154)***	3.024 (0.075)***	3.062 (0.088)***	2.033 (0.054)***
Intercept (τ_{00})	0.444 (0.107)***	0.210 (0.048)***	0.245 (0.050)***	0.572 (0.099)***	0.229 (0.041)***
ICC	0.109	0.071	0.075	0.157	0.101

Note. P-values are presented as follows:

* $p < .05$

** $p < .01$

*** $p < .001$.

Table 5
Full Model by country.

	Chile	Argentina (ACBA)	Colombia	Brazil	Mexico
	Coefficient (SE)	Coefficient (SE)	Coefficient (SE)	Coefficient (SE)	Coefficient (SE)
Intercept (y_{00})	15.352 (1.1593)***	23.239 (3.074)***	21.708 (2.599)***	14.817 (1.244)***	24.073 (2.195)***
Fixed effects					
Teacher level variables					
Teacher cooperation (y_{10})	0.136 (0.022)**	0.128 (0.023)**	0.057 (0.025)**	0.086 (0.022)***	0.092 (0.019)***
Teacher self-efficacy (y_{20})	0.144 (0.024)**	0.207 (0.025)**	0.172 (0.025)**	0.131 (0.025)***	0.188 (0.019)***
Workplace well-being and stress (y_{30})	-0.378 (0.021)***	-0.306 (0.020)***	-0.285 (0.022)***	-0.355 (0.019)***	-0.283 (0.018)***
Needs for professional development in subject matter and pedagogy (y_{40})	-0.037 (0.021)	-0.013 (0.025)	0.020 (0.022)	-0.063 (0.021)**	-0.029 (0.021)
Personal utility motivation to teach (y_{50})	-0.065 (0.023)**	-0.050 (0.030)*	-0.009 (0.022)	-0.003 (0.022)	-0.024 (0.019)
Perceptions of value and policy influence (y_{60})	0.044 (0.023)	0.059 (0.027)*	0.043 (0.022)	0.070 (0.021)	0.056 (0.019)**
Age (y_{70})	0.088 (0.041)*	0.000 (0.038)	0.069 (0.038)	0.012 (0.033)	0.032 (0.028)
Experience as teacher (y_{80})	0.025 (0.046)	-0.027 (0.034)	-0.008 (0.043)	0.047 (0.030)	0.026 (0.030)
Postgrade (y_{90})	-0.016 (0.026)	-0.042 (0.025)	0.090 (0.032)**	-0.001 (0.027)	0.012 (0.022)
Gender (y_{100})	0.062 (0.022)**	0.080 (0.030)**	0.012 (0.025)	0.054 (0.021)**	0.052 (0.020)*
Organizational level variables					
Teacher student relations (y_{01})	0.212 (0.112)	0.479 (0.117)***	0.300 (0.178)**	0.403 (0.101)***	0.370 (0.139)**
Participation among stakeholders (y_{02})	0.509 (0.113)***	0.451 (0.155)**	0.470 (0.110)***	0.418 (0.094)***	0.369 (0.120)***
Workload stress (y_{03})	-0.086 (0.092)	-0.120 (0.112)	-0.326 (0.119)**	-0.274 (0.096)**	-0.172 (0.085)*
Team innovativeness (y_{04})	0.158 (0.127)	-0.281 (0.127)*	0.022 (0.141)	-0.143 (0.092)	-0.099 (0.116)
Professional development barriers (y_{05})	-0.153 (0.101)	-0.186 (0.133)	0.118 (0.103)	0.021 (0.091)	-0.224 (0.084)**
Size 250-499 (y_{06})	-0.070 (0.094)	0.196 (0.126)	0.199 (0.219)	0.063 (0.080)	-0.045 (0.085)
Size 500-749 (y_{06})	0.137 (0.115)	0.122 (0.164)	0.100 (0.185)	0.157 (0.101)	0.143 (0.133)
Size 750-999 (y_{07})	0.043 (0.127)	0.114 (0.172)	0.110 (0.176)	0.103 (0.103)	-0.052 (0.166)
Size 1000-above (y_{08})	0.003 (0.115)	0.080 (0.158)	0.082 (0.168)	-0.018 (0.096)	0.064 (0.148)
Public (y_{09})	0.205 (0.105)**	-0.103 (0.163)	0.259 (0.152)	-0.264 (0.108)*	0.071 (0.150)
Urban (y_{010})	0.104 (0.091)	-	-0.130 (0.096)	-0.064 (0.072)	0.072 (0.069)
SES (y_{011})	-0.095 (0.118)	-0.293 (0.165)	-0.273 (0.140)*	-0.159 (0.102)	-0.191 (0.123)
Random Effects					
Residual (σ^2)	0.745 (0.021)***	0.796 (0.020)***	0.837 (0.018)***	0.777 (0.016)***	0.834 (0.013)***
Intercept (τ_{00})	0.273 (0.074)***	0.278 (0.139)**	0.218 (0.111)***	0.241 (0.063)***	0.454 (0.089)***
R²L1	0.269	0.222	0.161	0.232	0.184
R²L2	0.655	0.664	0.755	0.713	0.533

Note. P-values are presented as follows:

- * $p < .05$
- ** $p < .01$
- *** $p < .001$.

0.050 ($p < .05$), suggesting only a modest influence on overall job satisfaction in these contexts.

Perceptions of value and policy influence show modest positive effects on teacher job satisfaction but are significant only in certain contexts. While the effects are not statistically significant in Chile, Colombia, and Brazil, with coefficients ranging from 0.043 to 0.070, they reach significance in Argentina (CABA) with $\gamma = 0.059$ ($p < .05$) and in Mexico with $\gamma = 0.056$ ($p < .01$). This indicates that in Argentina and Mexico, the 'perceptions of value and policy influence' can significantly but moderately enhance teachers' job satisfaction.

The influence of demographic variables such as age, experience, postgraduate education, and gender on teacher job satisfaction does not display a consistent pattern across the studied countries, indicating that these factors alone may not be robust predictors when removed from the specific educational contexts of each country. For example, age shows a marginally positive impact in Chile with a coefficient of $\gamma = 0.088$ ($p < .05$), but it does not achieve statistical significance in other countries. Similarly, years of experience as a teacher do not demonstrate significant effects in enhancing job satisfaction, further underscoring the limited influence of these demographic variables on their own.

The possession of postgraduate qualifications varies in significance across different countries. In Colombia, holding postgraduate qualifications positively influences job satisfaction ($\gamma = 0.090$, $p < .01$), suggesting that higher education levels are valued. However, this effect is not significant in all countries, indicating varying perceptions of postgraduate qualifications based on local educational policies and values.

Regarding gender, its impact on job satisfaction shows variability in

significance across the countries studied. In Chile, there is a significant positive effect of gender on job satisfaction ($\gamma = 0.062$, $p < .01$), suggesting that female teachers may experience higher job satisfaction. In Argentina (CABA), the effect is also significant and slightly stronger ($\gamma = 0.080$, $p < .001$). However, in Colombia, the impact of gender on job satisfaction is not significant, illustrating that gender dynamics may vary widely even within neighboring countries. In Brazil, gender continues to show a positive effect with job satisfaction ($\gamma = 0.054$, $p < .01$). In contrast, in Mexico, the effect, although positive, is smaller ($\gamma = 0.052$, $p < .05$). These findings underscore that the influence of gender on teacher job satisfaction differs across these national contexts.

Organizational level predictors

The analysis of organizational level predictors across the studied countries reveals significant insights into how various factors within school environments influence teacher job satisfaction. These factors highlight the critical role those institutional dynamics play in shaping educational outcomes and teacher well-being.

The results reveal that positive teacher student relations are paramount in fostering job satisfaction, with the strongest effects observed in Argentina ($\gamma = 0.479$, $p < .001$), indicating that nurturing relationships between teachers and students are vital for teacher well-being. This effect is also pronounced in Brazil ($\gamma = 0.403$, $p < .001$), Mexico ($\gamma = 0.370$, $p < .01$), and Colombia ($\gamma = 0.300$, $p < .01$), suggesting a widespread correlation across diverse educational systems. While Chile shows a positive trend, the relationship there does not reach statistical signifi-

cance ($\gamma = 0.212, p > .05$), perhaps reflecting cultural or systemic differences that might moderate this influence.

Moreover, active participation among stakeholders within the school community consistently enhances job satisfaction across all surveyed countries. This is most evident in Chile, where the effect size is substantial ($\gamma = 0.509, p < .001$), and remains significant through Argentina ($\gamma = 0.451, p < .001$), Colombia ($\gamma = 0.470, p < .001$), Brazil ($\gamma = 0.418, p < .001$), and Mexico ($\gamma = 0.369, p < .001$). The implication is clear: schools where teachers, parents, and other community members engage collaboratively significantly uplift teacher morale and job satisfaction.

Conversely, workload stress emerges as a significant detractor from job satisfaction, particularly in Colombia where the negative impact is most pronounced ($\gamma = -0.326, p < .01$). This trend is echoed in Brazil ($\gamma = -0.274, p < .01$) and Mexico ($\gamma = -0.172, p < .05$), highlighting that excessive workload and stress are universal challenges that diminish teachers' job satisfaction. The findings for Chile and Argentina, though negative, are not statistically significant.

Team innovativeness presents mixed results across countries. In Argentina, a significantly negative impact on job satisfaction is observed ($\gamma = -0.281, p < .05$), suggesting that in schools where innovation is perhaps mandated or implemented without sufficient support, it might lead to decreased satisfaction. Conversely, modest positive effects in Chile ($\gamma = 0.158$) and negligible impacts in Colombia, Brazil, and Mexico indicate varying levels of receptiveness or implementation effectiveness regarding innovative practices within schools.

Professional development barriers also vary in their impact, with significant negative effects in Mexico ($\gamma = -0.224, p < .01$) demonstrating that obstacles to professional growth can substantially hinder teacher satisfaction. Other regions show no significant impact, highlighting the diverse contexts and perhaps differing expectations or resources available for professional development across countries.

Regarding school size, the data suggests that larger schools do not significantly differ in impacting job satisfaction compared to smaller schools (reference category of fewer than 250 students). This implies that while school size may affect operational dynamics, it does not consistently impact teacher satisfaction across the studied regions.

Additionally, significant results for public schools (reference category being private schools) show that working in public schools is associated with higher job satisfaction in Chile ($\gamma = 0.205, p < .01$) and lower in Brazil ($\gamma = -0.264, p < .05$). This could reflect differing conditions, resources, or support systems between public and private settings in these countries.

Finally, urban settings do not consistently affect job satisfaction, indicating that urbanization per se might not be a significant factor. However, lower SES is associated with decreased job satisfaction in Colombia ($\gamma = -0.273, p < .05$), reflecting perhaps the challenges and stressors unique to schools in lower socioeconomic environments.

In assessing the random effects and variance explained by the hierarchical linear models, significant insights emerge from the data analysis. For instance, in the model analyzing teacher job satisfaction, the residual variance component ranges from $\sigma^2 = 0.745$ in Chile to $\sigma^2 = 0.837$ in Colombia, indicating the proportion of variance in job satisfaction explained by differences at the individual teacher level after accounting for fixed effects. Similarly, the intercept variance component varies, with Mexico showing a higher $\tau_{00} = 0.454$, suggesting more substantial between-school variability in baseline job satisfaction across Mexican schools.

Moreover, the R^2 calculated using the Raudenbush Method offer additional depth in understanding the model's explanatory power at two levels. For example, the Level 1 R^2 values indicate the proportion of variance in job satisfaction explained by the predictors at the teacher level, with values ranging from 0.161 in Colombia to 0.269 in Chile. This suggests that the model is more effective at explaining the variance in teacher job satisfaction in Chile than in Colombia. Level 2 R^2 values, representing the school-level variance explained, are also significant,

with the highest being 0.755 in Colombia, indicating that the school-level predictors account for a substantial portion of the variance in job satisfaction across Colombian schools. Therefore, even though the Level 2 R^2 values are relatively high, they reflect a portion of a smaller segment of the total variance. This implies that while school-level variables might be effective at addressing between-school disparities in teacher job satisfaction, a large portion of the variance that occurs within schools remains unaddressed by these models. Thus, in terms of overall impact, the seemingly high R^2 values at Level 2 might still represent a limited scope of influence over total job satisfaction variability.

Discussion

Previous literature has highlighted the pivotal role that job satisfaction plays in the functioning and effectiveness of educational systems (Fütterer et al., 2023; Sahito & Vaisanen, 2020; Wang et al., 2019). High levels of satisfaction among teachers are associated with better teaching quality, improved student outcomes, and higher teacher retention rates (Madigan & Kim, 2021; Hoque et al., 2023). In that sense, addressing factors that influence teacher job satisfaction becomes crucial for fostering positive and effective school climates, and a stable teaching workforce.

Despite extensive global research on teacher job satisfaction, to our knowledge, there are no studies that simultaneously explore the subject in multiple countries of Latin America. This study fills this gap by exploring both individual and organizational predictors of teacher job satisfaction across five Latin American countries. By examining multiple countries simultaneously, the study allowed to identify both commonalities and differences across Latin American countries, providing a useful framework for identifying both universal and context-specific strategies to enhance job satisfaction.

Regarding individual predictors of job satisfaction, teacher cooperation emerged as a key factor across all the countries studied. This finding aligns with previous research, which highlights how collaborative environments foster higher teacher job satisfaction (Banerjee et al., 2017). Collaboration can be seen as a collective support mechanism among teachers, providing tools and professional resources that make their experience more engaging within the organization. Consequently, educational institutions should prioritize structured opportunities for collaboration as a strategic approach.

Self-efficacy also emerged as a significant individual driver of job satisfaction in all the countries analyzed, consistent with existing literature (Kasalak & Dagyar, 2020). This relationship could be attributed to the sense of capability in achieving educational goals, which fosters feelings of accomplishment and self-satisfaction among teachers. In this context, understanding the factors that enhance self-efficacy and identifying strategies to promote it are essential at both policy and school levels. These strategies could include targeted professional development, opportunities for reflective practice, constructive feedback mechanisms, and the creation of supportive environments where teachers feel empowered to innovate and address challenges effectively.

Conversely, workplace stress was consistently identified as a significant challenge, detracting from teacher job satisfaction in Latin America, in line with reviewed literature (Butt & Lance, 2005). These findings underscore the importance of interventions to address workplace stress, such as time management support, stress-relief programs, or a reduction in non-teaching responsibilities. In this regard, school leadership plays a key role, as it can contribute by fostering a more supportive work environment and actively supporting teachers.

The consistent impact of teacher cooperation, self-efficacy, and workplace stress on job satisfaction across the countries studied suggests that strategies targeting these individual factors could be effective in diverse educational contexts. However, other factors demonstrated varying levels of significance depending on the context, highlighting the

role of cultural and contextual differences in shaping the predictors of job satisfaction. For instance, the perception of value and policy influence had significant effects in some countries, as Argentina and Mexico, but not in others, possibly due to mediation or interaction with other variables. Likewise, demographic factors such as gender and educational background were relevant in certain settings, reflecting both how societal norms and expectations surrounding the teaching profession may shape these relationships and how different factors can take relevance according to context.

These differences on the individual predictors of job satisfaction, highlight the necessity of a nuanced approach to developing interventions and policies, while also considering the benefits of fostering collaboration, enhancing self-efficacy, and mitigating workplace stress. Future research should focus on unpacking these contextual dynamics to design more effective, culturally relevant strategies for improving teacher job satisfaction.

Regarding organizational level predictors, stakeholders' participation consistently emerged as one of the strongest organizational predictors of teacher job satisfaction across all countries studied. Schools where teachers, parents, and students are actively involved in decision-making processes, reported higher levels of satisfaction. This aligns with findings of literature (Wang et al., 2019) and highlights the importance of fostering inclusive and participatory environments that empower all stakeholders. However, while participation of stakeholders is crucial, not all decisions can or should involve all stakeholders, as it is also important to maintain the school's effectiveness and efficiency. In that sense, the challenge lies in finding the balance between inclusive decision-making and ensuring that decisions are made swiftly and effectively to maintain educational quality. Future research could explore where this balance lies, identifying which decisions are most appropriate for inclusive participation and which are better suited for streamlined decision-making processes. Specifically, studies could examine which types of decisions most significantly contribute to teacher job satisfaction. Understanding this could provide valuable insights for school leaders to create decision-making frameworks that enhance satisfaction without compromising efficiency or educational quality.

Similarly, good relationships between teachers and students are significant in all countries except Chile. This finding is supported by previous research, which consistently highlights the positive impact of strong teacher-student relationships on job satisfaction (Aldridge, 2016; You et al., 2017). However, the lack of significance in Chile may be attributed to contextual factors, such as higher administrative burdens or specific educational policies that could overshadow the influence of teacher-student interactions; highlighting once more the relevance of contextual dynamics.

Regarding negative effects, workload stress consistently had a negative effect on teacher job satisfaction in most countries. However, in Chile and Argentina, this variable did not reach statistical significance. One plausible explanation is that the burden of workload stress may be mitigated by other variables within the model. This could be seen as positive news for these countries, suggesting that certain factors might be buffering the negative impact of workload stress. Future analyses could explore the tipping point at which this variable ceases to be

significant, providing a clearer understanding of the dynamics at play.

Overall, these findings emphasize the importance of context-specific interventions that address common factors and tailor strategies to each educational system's unique challenges. Furthermore, the study's results correspond with existing literature, which consistently highlights the lack of consensus on the predictors of teacher job satisfaction (Liu et al., 2023). While certain factors, such as teacher cooperation and self-efficacy, are widely recognized as important, the varying significance of other variables, such as the perception of value and policy influence, underscore the complexity and context-dependence of job satisfaction. This reinforces the idea that there is no one-size-fits-all approach to improving teacher well-being and that policies must be flexible enough to account for the diverse educational landscapes and challenges faced by teachers in different contexts.

Limitations and future research

It is worth mentioning that this study has some limitations. The absence of stratification weights could have affected the precision of the variance estimates. Additionally, the cross-sectional nature of TALIS data limits the ability to infer causality. Future studies could benefit from a longitudinal approach to analyze how these factors evolve over time.

Lastly, we believe this study opens several opportunities for future research and practice. It is crucial to continue exploring how individual and organizational characteristics interact to influence teacher job satisfaction. In particular, further research on compositional effects, such as how individual-level stress interacts with organizational factors, could provide deeper insights into the dynamics that shape teacher satisfaction. Understanding these effects will help develop more nuanced and effective interventions, particularly in contexts where individual stressors might disproportionately influence job satisfaction, potentially masking or amplifying the effects of broader organizational factors.

CRedit authorship contribution statement

Christian Lazcano: Writing – review & editing, Writing – original draft, Supervision, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Sara Galilea:** Writing – review & editing, Writing – original draft, Project administration, Investigation, Formal analysis, Conceptualization. **Stefanie Wenderoth:** Writing – review & editing, Writing – original draft, Project administration, Investigation, Conceptualization. **Armando Rojas:** Writing – review & editing, Writing – original draft, Investigation, Formal analysis. **María Soledad Ortúzar:** Writing – review & editing, Writing – original draft, Methodology.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.ijedro.2025.100516](https://doi.org/10.1016/j.ijedro.2025.100516).

Appendix

Construct	Items
<u>T3JOBSA: Job satisfaction composite</u>	
T3JSENV: Job satisfaction with work environment (subscale)	I would like to change to another school if that were possible I enjoy working at this school I would recommend this school as a good place to work All in all, I am satisfied with my job
T3JSPRO: Job satisfaction with profession (subscale)	The advantages of being a teacher clearly outweigh the disadvantages If I could decide again, I would still choose to work as a teacher I regret that I decided to become a teacher I wonder whether it would have been better to choose another profession
T3SATAT: Satisfaction with target class autonomy	Determining course content Selecting teaching methods Assessing students' learning Disciplining students Determining the amount of homework to be assigned
<u>T3SELF: Teacher self-efficacy, composite</u>	
T3SECLS: Self-efficacy in classroom management (subscale)	Control disruptive behaviour in the classroom Make my expectations about student behaviour clear Get students to follow classroom rules Calm a student who is disruptive or noisy
T3SEINS: Self-efficacy in instruction (subscale)	Craft good questions for students Use a variety of assessment strategies Provide an alternative explanation, for example when students are confused Vary instructional strategies in my classroom
T3SEENG: Self-efficacy in student engagement (subscale)	Get students to believe they can do well in school work Help students value learning Motivate students who show low interest in school work Help students think critically
<u>T3COOP: Teacher co-operation, composite</u>	
T3EXCH: Exchange and co-ordination among teachers (subscale)	Exchange or develop teaching materials with colleagues Discuss the learning development of specific students Work with other teachers in this school to ensure common standards in evaluations for assessing student progress Attend team conferences
T3COLES: Professional collaboration in lessons among teachers (subscale)	Teach jointly as a team in the same class Provide feedback to other teachers about their practice Engage in joint activities across different classes and age groups (e.g. projects) Participate in collaborative professional learning
<u>T3WELS: Workplace well-being and stress</u>	
<u>T3WLOAD: Workload stress</u>	
<u>T3PDPED: Needs for professional development in subject matter and pedagogy</u>	
<u>T3PDBAR: Professional development barriers</u>	
<u>T3PERUT: Personal utility motivation to teach</u>	
<u>T3SOCUT: Social utility motivation to teach</u>	
<u>T3VALP: Perceptions of value and policy influence</u>	
<u>T3STUD: Teacher-student relations</u>	
<u>T3STAKE: Participation among stakeholders, teachers</u>	

(continued on next page)

(continued)

Construct	Items
T3TEAM: Team innovativeness	This school has a culture of shared responsibility for school issues There is a collaborative school culture which is characterised by mutual support Most teachers in this school strive to develop new ideas for teaching and learning Most teachers in this school are open to change Most teachers in this school search for new ways to solve problems Most teachers in this school provide practical support to each other for the application of new ideas

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