

Psychometric Properties of the Teacher Well-being Scale (TWBS) in the Chilean context

Propiedades Psicométricas de la Escala de Bienestar Docente (TWBS) en el contexto Chileno

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Abstract

This study aimed to evaluate the psychometric properties of the Teacher Well-Being Scale (TWBS) within the Chilean educational context, with a specific focus on English as a Foreign Language (EFL) school teachers across the country. Given the growing recognition of teacher well-being as a critical factor in educational quality, validating reliable assessment tools is essential. To assess the reliability and internal validity of the scale in this setting, a 16-item Spanish-adapted version of the TWBS was administered online to a sample of 304 EFL teachers working in diverse Chilean school environments. Furthermore, a two-stage validation design was implemented, using independent samples. The results demonstrated that the TWBS exhibits strong psychometric properties, including excellent reliability with a Cronbach's alpha of .903, confirming its high internal consistency. Additionally, evidence of internal validity was provided through Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA), which supported the scale's structural validity and indicated a well-fitting three-factor model for the collected data. These findings are crucial for establishing the TWBS as a valid and reliable instrument in the Chilean context, ensuring its effectiveness in measuring key dimensions of teachers' professional well-being.

Keywords: *English as a foreign language teachers, psychometric validation, teacher well-being, teacher well-being scale*

Resumen

Este estudio tuvo como objetivo evaluar las propiedades psicométricas de la Escala de Bienestar Docente (Teacher Well-Being Scale, TWBS) en el contexto educativo chileno, con un énfasis específico en docentes de inglés como lengua extranjera (EFL) de colegios a lo largo del país. Dado el creciente reconocimiento del bienestar docente como un factor clave en la calidad educativa, la validación de instrumentos de evaluación confiables resulta fundamental. Para evaluar la confiabilidad y la validez interna de la escala en este contexto, se administró en línea una versión adaptada al español de la TWBS, compuesta por 16 ítems, a una muestra de 304 docentes de EFL que se desempeñaban en diversos entornos escolares chilenos. Asimismo, se implementó un diseño de validación en dos etapas, utilizando muestras independientes. Los resultados evidenciaron que la TWBS presenta sólidas propiedades psicométricas, incluyendo una excelente confiabilidad, con un coeficiente alfa de Cronbach de .903, lo que confirma su alta consistencia interna. Adicionalmente, se obtuvo evidencia de validez interna mediante análisis factorial exploratorio (AFE) y análisis factorial confirmatorio (AFC), los cuales respaldaron la validez estructural de la escala e indicaron un modelo trifactorial con un ajuste adecuado a los datos recopilados. Estos hallazgos son fundamentales para establecer la TWBS como un instrumento válido y confiable en el contexto chileno, garantizando su efectividad para medir dimensiones clave del bienestar profesional docente.

Palabras clave: *Bienestar docente, escala de bienestar docente, profesores de inglés como lengua extranjera, validación psicométrica*



Introduction

The teaching profession worldwide is plagued with high levels of attrition, with most international figures estimating that 20-50% of teachers leave the profession early in their careers (Räsänen et al., 2020; United Nations Educational, Scientific, and Cultural Organization (UNESCO), 2024). Recent challenges related to the COVID-19 pandemic have worsened the situation (Fox & Walter, 2022; García et al., 2022; McCarthy et al., 2022), leading around 55% of teachers to express their intention to leave the profession earlier than originally intended (Jotkoff, 2022). Chile also struggles to retain teachers, with over 40% abandoning the field within five years (Ávalos & Valenzuela, 2016) and 10.7% departing in their first year (Elige Educar, 2022). Teaching work overload, poor working conditions, and mental health problems during the global health crisis have heightened teacher absenteeism and shortage rates in Chilean schools in the post-pandemic period (Bellei & Contreras, 2024).

Although many professions experience attrition, it is especially critical in education because every country needs a sufficient number of qualified teachers to provide education for its citizens (Kelchtermans, 2017). Teacher shortages, attrition, and high turnover can have a devastating economic impact and can also negatively affect student achievement (Carver-Thomas & Darling-Hammond, 2017; Gibbons et al., 2021; Sorensen & Ladd, 2020). Much of the turnover and attrition can be attributed to an overall dissatisfaction with working conditions, inadequate pay, challenging student behavior, increasing mental health demands, the obligation to help students in recovering from lost learning during the pandemic, lack of professional autonomy, and assuming additional responsibilities due to staffing difficulties (Devers et al., 2024; Madero, 2019; Nguyen & Kremer, 2022; Souto-Manning & Melvin, 2022; Steiner et al., 2022). Dealing with these challenges raises teachers' stress levels, affects their sense of well-being, and leads to teacher burnout (Oberg, 2025; Sohail et al., 2023). This is why scholars' interest in gaining a deeper understanding of educators' well-being and how to improve it has grown significantly in recent years (see e.g., Babic et al., 2022; Dreer, 2021; Gregersen et al., 2020; Gruber et al., 2020; Sulis et al., 2021).

Studies have shown that higher levels of teacher well-being may contribute to improving classroom practices and bring multiple benefits not only for teachers but also for students (Babic et al., 2022; Jin et al., 2021; Roffey, 2012; Turner & Theilking, 2021). Teachers who experience high levels of well-being have been reported to build better teacher-student relationships (Narea et al., 2022) and have higher levels of learner achievement (Dreer, 2023). Promoting teacher well-being may also reduce the number of students requiring support to overcome social, behavioral, and learning difficulties (Roffey, 2012).

While it is clear that there is a pressing need to enhance teacher well-being and mitigate factors such as stress, burnout, and attrition, a crucial aspect to consider is the efficacy and precision of the methods utilized to assess teacher well-being (Bardach et al., 2022; Fox et al., 2023). It is essential to identify suitable measurement tools, which will enable the comparison of well-being levels and interventions across various contexts (Fox et al., 2023), and from which strategies that successfully improve teachers' well-being may be proposed. However, due to the complex nature of teacher well-being, there is no consensus among scholars either on how to define this construct nor on how to measure it (Fox et al., 2023; Hascher & Waber, 2021; Mairitsch et al., 2021).

Indeed, varied tools have been used to measure teacher well-being in recent years, with many of them focused on negative aspects such as work-related stress and burnout.

The Maslach Burnout Inventory (MBI) (Maslach et al., 1986) is one of the most used scales (Fox et al., 2023). This instrument measures teachers' perceived levels of burnout in terms of three factors: emotional exhaustion, depersonalization, and personal accomplishment. Other scales, such as the Educator Test Stress Inventory (ETSI) (von der Embse et al., 2014), have been developed to measure teachers' stress at work. As these measures have assessed only the aspects that affect teacher well-being thus providing a limited understanding of this construct (Renshaw et al., 2015), researchers have recently focused on examining the factors that support teacher well-being as well.

A tool that has gained popularity in recent years is the PERMA-Profiler (Butler & Kern, 2016), which has been used to measure the well-being of individuals in general and also in relation to teachers (see e.g., MacIntyre et al., 2022; MacIntyre et al., 2020; Shanmugam & Hidayat, 2022). This scale was developed on the basis of Seligman's PERMA (2011) model, aiming to assess well-being across five domains: positive emotion (P), engagement (E), relationships (R), meaning (M), and accomplishment (A).

Other scales have been developed to measure subjective well-being. For instance, the Positive and Negative Affect Schedule (PANAS) (Watson et al., 1988) consists of 10 items measuring positive affect and 10 items measuring negative affect. By means of a Likert scale, respondents indicate the extent to which they have experienced these emotions within a specific time frame.

The systematic review by Fox et al. (2023) on the methods used to assess teacher well-being reveals that only a few teacher-specific instruments have been developed for this purpose in recent years. The Teacher Subjective Well-being Questionnaire (TSWQ) (Renshaw et al., 2015), for example, uses two main factors to measure teachers' work-related well-being: teacher self-efficacy and teachers' sense of school connectedness. This tool has been used across varied contexts, including teachers from Brazil (de Biagi et al., 2017) and the United States (Mankin et al., 2017). Likewise, the Teacher Well-being Scale (TWBS) (Collie et al., 2015) measures teachers' work-related well-being in terms of three factors: workload well-being (i.e., teacher workload and related pressure), organizational well-being (i.e., school leadership and culture), and student interaction well-being (i.e., students' motivation, behavior, and relationships).

Teacher well-being, as conceptualized in the TWBS (Collie et al., 2015), is grounded in a multidimensional and context-sensitive understanding of teachers' professional experiences. The scale draws primarily on occupational well-being frameworks and the job demands--resources (JD--R) model (Bakker & Demerouti, 2013; Demerouti et al., 2001), which posit that employee well-being emerges from the dynamic balance between job demands and job resources. Within this framework, excessive demands such as workload may undermine well-being, whereas organizational and relational resources function as protective factors that promote engagement and resilience.

In addition, the TWBS is informed by perspectives from positive psychology and teacher motivation research (Ryan & Deci, 2000; Seligman, 2011), emphasizing the role of meaningful social relationships, autonomy-supportive environments, and positive emotional experiences in professional functioning. Accordingly, the TWBS operationalizes teacher well-being through three interrelated dimensions: workload well-being, reflecting the demands inherent to teaching tasks; organizational well-being, capturing perceptions of leadership support and school climate; and student interaction well-being, representing the relational and emotional quality of teachers' interactions with students. Together, these theoretical foundations position teacher well-being as a professional construct embedded within teachers' daily working conditions and institutional contexts, rather than as a solely individual or affective state.

Although the psychometric properties of this scale have supported its factor structure and higher-order factor of teacher well-being, to date, the TWBS has only been used with a sample of Canadian teachers (Collie et al., 2015) and, more recently, it was adapted and validated in an Ethiopian education context (Zewude & Hercz, 2022). This latter study showed that the TWBS has excellent reliability, acceptable convergent and divergent validity, and very good discriminant and factorial validity.

In Chile, studies have assessed teacher well-being through varied measurement tools, including the PANAS, the Personal Well-being Index for Adults (PWI-A) (International Wellbeing Group, 2013), and the SWLS (see e.g., Herrera et al., 2022; López-Orellana et al., 2021; Varela et al., 2023). Other studies, focused on measuring teacher burnout, have used the Questionnaire for the Evaluation of Burnout Syndrome (CESQT) (Gil-Monte, 2019) and the Teacher Burnout Scale (Friedman & Farber, 1992) (see e.g., Sato et al., 2022; Varela et al., 2023).

To date, the measures used to assess teacher well-being in Chile have focused on individuals in general, which may lead to underestimating important aspects specific to the teaching profession as a whole. Thus, in order to accurately evaluate teachers' realities in relation to their well-being, an instrument that is context-dependent, in the participants' mother tongue, and that measures teachers' professional well-being is required in Chile. Considering this gap, we recently assessed the professional well-being of EFL school teachers in the Chilean context by using the TWBS. While this tool effectively captures the construct of teachers' professional well-being - defined as their positive evaluations and sense of healthy functioning in the workplace (Collie et al., 2015; Van Horn et al., 2004) - it has yet to be validated in Spanish-speaking settings. Therefore, the objective of this study was to evaluate the psychometric properties of the Spanish version of the TWBS among Chilean EFL school teachers, specifically its internal consistency reliability and construct validity. Based on previous validation studies of the TWBS, we hypothesized that the scale would retain its original three-factor structure---workload well-being, organizational well-being, and student interaction well-being---within the Chilean educational context.

Materials and methods

Study design and participants

We used a psychometric quantitative method and a descriptive cross-sectional design. A nonprobabilistic snowballing sample was used in this study. This sampling method was chosen due to the challenges of recruiting participants (evidenced in the pilot stage) who met the specific inclusion criteria required for this research: active in-service EFL teachers working in the Chilean school system and who had signed the informed consent.

The final sample consisted of 304 EFL school teachers working in diverse educational settings across Chile. Participants represented a wide range of ages, with 72.7% aged between 22 and 43 years, 26.7% between 44 and 65 years, and 0.7% older than 65. Teaching experience also varied considerably, with 1.0% reporting less than one year of experience, 32.2% between 1 and 7 years, 53.9% between 8 and 22 years, 7.9% between 23 and 30 years, and 4.9% reporting more than 30 years of teaching experience. Teachers were employed across different instructional levels, including primary education (44.6%), secondary education (27.1%), or both levels (28.4%). In addition, participants worked in institutions serving students from varied socioeconomic back-

grounds, as indicated by the institutional vulnerability index, which ranged from less than 30% (20.1%) to 71--100% (46.5%). These characteristics provide relevant contextual information regarding the professional and institutional settings in which the TWBS was validated.

Before beginning the survey, participants reviewed detailed information about the study's objective and participation requirements, then provided digital consent by signing an electronic form. Regarding the exclusion criteria, all incomplete questionnaires were excluded.

Measures

The data for this study were collected via an online questionnaire consisting of three sections:

1. *Sociodemographic questionnaire*: Participants completed a brief sociodemographic questionnaire designed to collect contextual information relevant to the study. The questionnaire gathered data on teachers' age, gender, years of teaching experience, instructional level (primary, secondary, or both), type of school (public, private, or subsidized), students per class, working hours, geographical area, gross salary, and institutional vulnerability index. These variables were used exclusively for descriptive purposes to characterize the sample and were not included in the psychometric analyses.
2. *Personal subjective well-being*: General subjective well-being was assessed using the PERMA-Profiler (Butler & Kern, 2016), in its Spanish version adapted and validated for the Chilean context (Cobo-Rendon et al., 2020). This 23-item self-report instrument is designed to characterize individuals' overall sense of well-being and comprises five core dimensions: positive emotions, engagement, positive relationships, meaning, and accomplishment. In addition, the scale includes supplementary subscales assessing negative emotions, loneliness, and physical health. Items are rated on a 6-point Likert-type scale ranging from 0 (never) to 5 (always). The PERMA-Profiler was included to provide complementary evidence of convergent validity for the Teacher Well-Being Scale, based on the theoretical expectation that teachers' professional well-being is positively associated with broader indicators of general subjective well-being. Although the examination of convergent validity was not a primary objective of the study, associations between PERMA-Profiler scores and TWBS scores were examined to support the validity of the instrument.
3. *Teacher well-being*: Teacher professional well-being was assessed using the Teacher Well-Being Scale (TWBS), developed by Collie et al. (2015). The TWBS is a 16-item self-report instrument designed to measure teachers' well-being across three dimensions: workload well-being, organizational well-being, and student interaction well-being. Items are rated on a Likert-type response scale ranging from 1 (*negatively*) to 7 (*positively*), depending on how respondents feel their well-being as teachers has been affected.

In the present study, a Spanish-adapted version of the TWBS was administered (see Appendix). This version was developed following a linguistic and cultural adaptation process. The original English items were translated into Spanish and subsequently reviewed by bilingual experts with experience in educational research to ensure semantic equivalence and contextual appropriateness. A back-translation procedure was employed to verify consistency with the original version, and minor adjustments were

made to enhance clarity and cultural relevance for Chilean teachers. During the piloting phase of the questionnaire, participants were invited via email to provide feedback, particularly on any unclear statements, thus contributing to the enhancement of the final version of the scale.

The questionnaire was applied electronically, requiring first the signing of informed consent for data collection. The data collected were demographic and anonymous. The study was approved by the Bioethics Committee of the Faculty of Education and Social Sciences, Andrés Bello University, and conducted in accordance with the latest version of the Declaration of Helsinki.

Data analysis

Prior to conducting the main analyses, the dataset was examined for missing values and outliers. A small proportion of missing data was identified across items. Given the limited extent of missingness, cases with incomplete responses were handled using listwise deletion. Univariate outliers were assessed using standardized scores, and no extreme values requiring exclusion were detected. The final analyses were therefore conducted using the cleaned dataset.

The normality of score distributions was assessed through the examination of skewness and kurtosis values, using commonly accepted cutoff criteria. Absolute skewness values below 2 and kurtosis values below 7 were considered indicative of acceptable univariate normality. In addition, visual inspection of distribution plots was conducted to identify any substantial deviations from normality.

All statistical analyses were performed using SPSS Statistics version 25 (IBM Corp., 2017) and SPSS AMOS version (IBM Corp., 2016). The psychometric evaluation of the TWBS followed a two-step process, involving exploratory and confirmatory factor analyses on independent subsamples, consistent with prior studies (e.g., Farres-Tarafa et al., 2020; Ortega-Cejas et al., 2021). Notably, some studies have employed CFA directly when adapting an instrument to a new language (e.g., Yıldız Çelik & Uğur, 2025).

First, internal consistency reliability was assessed using Cronbach's alpha coefficient for the overall scale and each subscale. Additionally, corrected item-total correlations and "alpha if item deleted" values were examined for all 16 items, following widely accepted procedures for evaluating scale reliability (Rodríguez-Rodríguez & Reguant-Álvarez, 2020).

For the exploratory phase, a random subsample of 100 cases was selected. To examine the underlying structure of the instrument, we conducted an exploratory factor analysis (EFA) using the Principal Axis Factoring (PAF) extraction method with Promax oblique rotation, in line with current best practices for identifying latent constructs (Costello & Osborne, 2005; Williams et al., 2010). The choice of a sample size of approximately 100 is supported by the literature, which indicates that, under certain conditions---such as high communalities (≥ 0.6), strong factor loadings (≥ 0.7), and a limited number of factors---stable and replicable factor solutions can be obtained with relatively small samples (de Winter et al., 2009; Sapnas & Zeller, 2002). In our data, these criteria were met: communalities and factor loadings were high, and the resulting structure comprised only three factors. This supports the adequacy of our sample size for the exploratory phase. The suitability of the data for factor analysis was further confirmed by the Kaiser-Meyer-Olkin (KMO) index and Bartlett's test of sphericity.

Subsequently, a confirmatory factor analysis (CFA) was conducted using SPSS AMOS (Arbuckle, 2014) on a separate random subsample of more than 200 cases to test the

hypothesized three-factor structure of the TWBS identified in the exploratory factor analysis. Given the continuous treatment of Likert-type items and the sample size, model parameters were estimated using Maximum Likelihood (ML) estimation. Model fit was evaluated using commonly recommended absolute and incremental fit indices, including the chi-square statistic (χ^2) with its associated p-value, the comparative fit index (CFI), the Tucker-Lewis index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). In line with current recommendations, CFI and TLI values of .95 or higher were considered indicative of good model fit, while RMSEA and SRMR values below .08 were interpreted as reflecting acceptable fit (Brown, 2015; Hoyle, 2023; Kline, 2023).

Additionally, to assess convergent and discriminant validity, Pearson correlations were calculated between the TWBS total score and subscales and the PERMA-Profilер dimensions. Stronger correlations were expected with theoretically related PERMA dimensions (e.g., positive emotions, purpose, accomplishment), supporting convergent validity. Weaker or negative correlations with less related dimensions (e.g., negative emotions, loneliness) provided preliminary evidence of discriminant validity. Results are presented in Table 4.

Results

Item analysis

Table 1 presents descriptive statistics for the TWBS items, including the mean, standard deviation, skewness, and kurtosis. Overall, the item distributions showed acceptable levels of variability and approximate univariate normality.

Table 1
Descriptive Statistics for the TWBS Items

Item	M	Mean	Sd	Skewness	Kurtosis
1	2.93	3	1.52	0.43	-0.55
2	3.17	3	1.98	0.59	-0.88
3	2.84	3	1.58	0.62	-0.46
4	2.43	2	1.55	1.00	0.24
5	2.72	3	1.53	0.70	-0.11
6	2.35	2	1.47	1.12	0.85
7	4.41	4	1.80	-0.29	-0.92
8	4.17	4	1.89	-0.15	-1.02
9	4.07	4	1.96	-0.21	-1.10
10	3.75	4	1.71	0.05	-0.78
11	4.08	4	1.75	-0.14	-0.93
12	3.77	4	1.77	0.05	-0.86
13	3.78	4	1.81	0.05	-1.04
14	4.68	5	1.70	-0.44	-0.67
15	4.02	4	1.85	-0.11	-1.10

Item	M	Mean	Sd	Skewness	Kurtosis
16	4.83	5	1.64	-0.55	-0.57

Note: $p < 0.001$, $p < 0.01$, $p < 0.05$.

Exploratory factor analysis

An exploratory factor analysis (EFA) was conducted using the Principal Axis Factoring (PAF) extraction method with Promax oblique rotation and Kaiser normalization, aiming to identify the underlying structure of the TWBS instrument. The data's suitability for factor analysis was confirmed by a Kaiser-Meyer-Olkin (KMO) index of .846, which is considered excellent (Kaiser, 1974), and a significant Bartlett's test of sphericity ($\chi^2 = 1115.046$, $df = 120$, $p < .001$), supporting the appropriateness of applying factor analysis.

Factor retention was based on the eigenvalue-greater-than-one criterion and the interpretability of the factor solution. Although parallel analysis is considered a more accurate method for determining the number of factors, it was not conducted due to software limitations.

Three factors with eigenvalues greater than 1 were retained, accounting for a total of 71.49% of the variance. Specifically, the first factor explained 41.45%, the second 16.41%, and the third 13.63%.

The resulting factorial structure was consistent with the original theoretical model of the TWBS (Collie et al., 2015), clustering items into three interpretable dimensions: (1) Student Interaction, (2) Organizational Support, and (3) Workload. The three extracted factors accounted for 65.36% of the total variance, with the first factor explaining 39.45%, the second factor 14.27%, and the third factor 11.64% of the variance.

The structure matrix revealed high factor loadings ($\geq .80$) for items strongly associated with each dimension (see Table 2), with items such as Item10 (.890), Item12 (.845), and Item03 (.904) emerging as highly representative of their respective factors. All factor loadings exceeded the accepted threshold of .40 (Field, 2024), with no evidence of problematic cross-loadings.

Table 2
Exploratory Factor Analysis of the TWBS

Item		Factor		
		1	2	3
	10	0.890		
	12	0.845		
	8	0.841		
	11	0.830		
	9	0.803		
	7	0.797		
	3		0.904	
	5		0.899	
	1		0.819	
	4		0.662	
	2		0.646	
	6		0.613	
	15			0.861
	14			0.847
	16			0.800
	13			0.775

Note: Extraction method: Principal Axis Factoring. Rotation method: Promax with Kaiser normalization. Only factor loadings ≥ .40 are displayed. Primary loadings are shown in bold.

Instrument reliability

Reliability of the TWBS was measured by Cronbach's alpha which yielded a result of .903. This accounts for all items of the scale. Furthermore, Table 3 shows that removing any item would result in a lower internal consistency.

Table 3*Corrected item correlation and Cronbach's alpha if the item is removed*

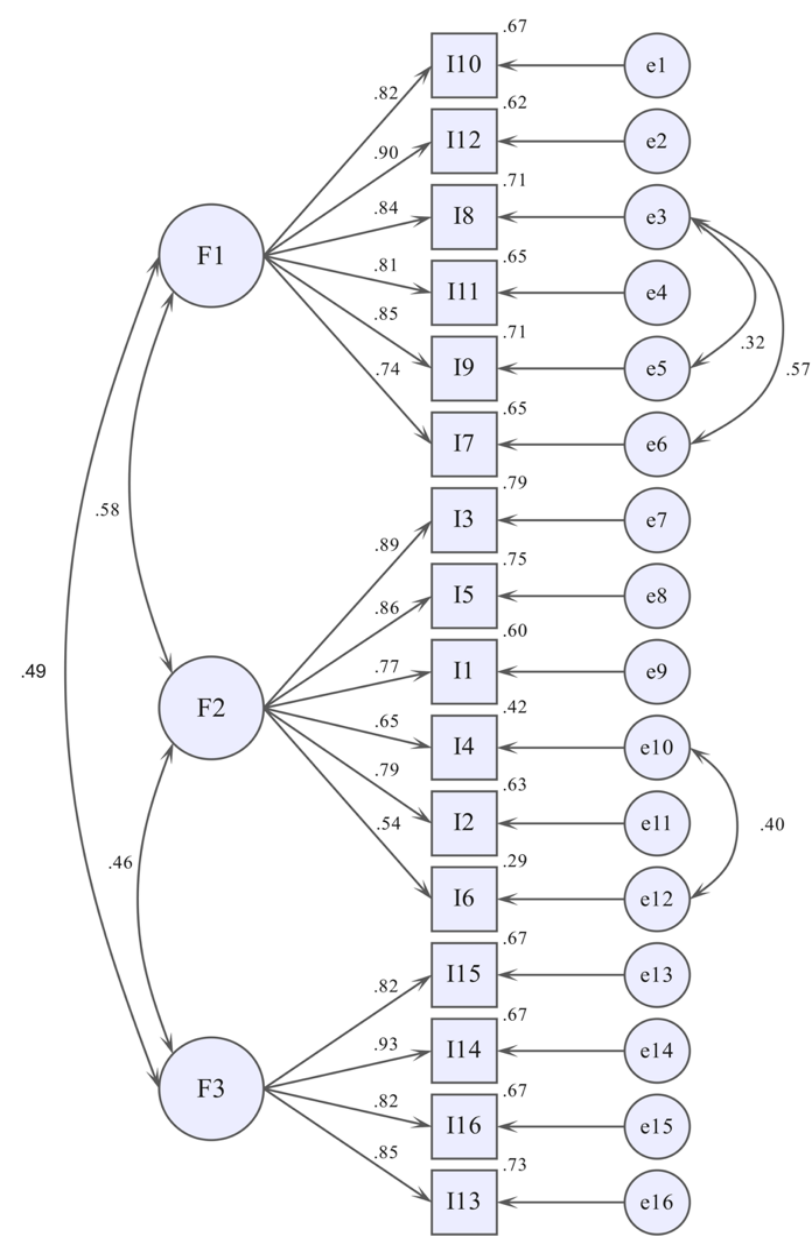
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	540.500	277.139	.549	.898
2	536.500	264.876	.536	.899
3	541.600	269.772	.638	.894
4	546.200	285.006	.446	.901
5	542.100	271.945	.652	.894
6	546.700	286.587	.402	.902
7	525.200	267.424	.623	.895
8	529.100	266.608	.620	.895
9	528.400	265.085	.633	.895
10	531.800	266.937	.694	.893
11	531.000	269.485	.629	.895
12	534.000	267.212	.722	.892
13	530.300	272.716	.529	.898
14	520.800	278.357	.524	.898
15	526.600	271.802	.549	.898
16	521.200	278.531	.466	.900

Confirmatory factor analysis

A confirmatory factor analysis (CFA) was conducted using SPSS AMOS (IBM Corp., 2016) to evaluate the hypothesized three-factor structure of the Teacher Well-Being Scale. The model demonstrated a statistically significant chi-square statistic, $\chi^2(97) = 182.59$, $p < .001$, which is common in models with moderate sample sizes. Overall model fit was evaluated using multiple fit indices commonly recommended in the literature. The incremental fit indices indicated good model fit, with a comparative fit index (CFI) of .966 and a Tucker-Lewis index (TLI) of .958, both exceeding the recommended cutoff of .95. The root mean square error of approximation (RMSEA) was .066, with a 90% confidence interval ranging from .051 to .081, indicating acceptable fit. The standardized root mean square residual (SRMR) was .05, also within acceptable limits.

Taken together, these results provide support for the adequacy of the three-factor model of the TWBS and are consistent with the underlying theoretical structure proposed by Collie et al. (2015) (see Figure 1).

Figure 1
Confirmatory factor analysis model of the TWBS



Internal consistency by subscale

Cronbach's alpha coefficients were computed for the total scale and for each subscale of the TWBS after the confirmatory factor analysis. The total scale showed excellent internal consistency ($\alpha = .90$). The subscales also demonstrated strong reliability: Workload Well-Being ($\alpha = .88$, $\omega = .89$), Organizational Well-Being ($\alpha = .93$, $\omega = .93$), and Student Interaction Well-Being ($\alpha = .91$, $\omega = .91$). These values confirm that the TWBS provides consistent and reliable measurement across its dimensions, supported by both alpha and McDonald's omega coefficients.

Discriminant and convergent validity

To assess convergent validity, bivariate Pearson correlations were calculated between the total score and subscales of the TWBS and the dimensions of the PERMA Profiler (Table 4). As expected, the TWBS total score showed a moderate to strong positive correlation with overall subjective well-being as measured by the PERMA total score ($r = .546, p < .001$). Moreover, the TWBS subscales---workload well-being, organizational well-being, and student interaction well-being---also correlated significantly with PERMA dimensions theoretically related to teacher well-being.

In particular, the TWBS total score demonstrated strong associations with the PERMA dimensions of positive emotions ($r = .579$), accomplishment ($r = .555$), and purpose ($r = .513$). These results provide preliminary evidence of convergent validity, as they support the theoretical assumption that professional and personal well-being are positively related.

Regarding discriminant validity, weaker or inverse correlations were observed between TWBS scores and PERMA dimensions that are less conceptually related or more reflective of negative states. For instance, negative emotions showed a moderate negative correlation with TWBS ($r = -.318$), and loneliness correlated negatively but weakly with TWBS ($r = -.109, p = .057$). These patterns support the discriminant validity of the TWBS, indicating that the scale is measuring a distinct but related construct from general negative affect or isolation.

These findings suggest that the TWBS captures specific aspects of teachers' professional well-being that are meaningfully related to, but distinct from, broader dimensions of subjective well-being.

Table 4
Correlations between TWBS and PERMA

Variables	TWBS Total	Workload WB	Org. WB	Student Interact. WB
PERMA Total	.546**	.355**	.451**	.501**
Positive Emotions	.579**	.421**	.497**	.453**
Purpose	.513**	.339**	.432**	.456**
Accomplishment	.555**	.424**	.428**	.472**
Physical Health	.427**	.308**	.356**	.351**
Negative Emotions	-.318**	-.276**	-.312**	-.152**
Loneliness	-.109	-.071	-.135*	-.031

Note: Values represent Pearson correlation coefficients between the TWBS total score and its subscales (Workload Well-Being, Organizational Well-Being, and Student Interaction Well-Being) and the PERMA dimensions. $p < .05$. $p < .01$. All tests two-tailed.

Discussion

The primary objective of this study was to evaluate the psychometric properties of the Teacher Well-Being Scale (TWBS) in the context of English as a Foreign Language (EFL) teachers in Chile. Overall, the findings provide strong support for the reliability and structural validity of the scale in this population. The TWBS demonstrated excellent internal consistency, consistent with established benchmarks for reliability (Chenani & Madadzadeh, 2021; Cicchetti, 1994), and comparable to coefficients reported in both

the original validation study (Collie et al., 2015) and subsequent adaptations in other cultural contexts (e.g., Zewude & Hercz, 2022). This convergence suggests that the TWBS reliably captures core aspects of teacher well-being across diverse educational systems.

Importantly, the factor structure identified in the present study closely aligns with the three-factor model proposed in previous validations, encompassing workload, organizational support, and student interaction. The replication of this structure across different cultural and institutional contexts reinforces the theoretical robustness of the TWBS and supports its construct validity. Such consistency suggests that these three dimensions represent foundational components of teacher well-being that transcend specific national or educational settings. Nevertheless, further validation among teachers from other disciplinary areas within Chile would strengthen evidence for the scale's external validity and broader applicability.

At the same time, it is important to recognize that linguistic and cultural adaptation processes may subtly shape how individual items are interpreted. Semantic nuances introduced during translation, as well as culturally situated understandings of workload, institutional support, and teacher--student relationships, may influence the relative salience of specific indicators within each factor. While these influences did not alter the overarching factorial configuration, they may affect how teachers experience and report their well-being. Future studies could further examine these issues through qualitative methods, cognitive interviewing, or measurement invariance analyses across linguistic, disciplinary, or national groups.

Although the confirmatory factor analysis supported the proposed three-factor structure, the model's generalizability warrants cautious interpretation. Achieving acceptable model fit required the specification of several correlated error terms between conceptually related items. While such post hoc modifications are common in psychometric validation research, they may reflect partial item redundancy or shared method variance, potentially limiting the stability of the model across independent samples. This highlights the importance of replicating the factor structure in new samples and refining item wording to enhance conceptual distinctiveness and reduce item dependence.

Beyond its psychometric contributions, the validation of the TWBS has important practical implications. By capturing distinct dimensions of teacher well-being, the scale offers a nuanced tool for identifying specific professional conditions that support or undermine teachers' functioning. This is particularly relevant in the post-pandemic context, where rising levels of emotional strain, workload intensification, and organizational challenges have been linked to increased burnout and teacher attrition (Arnold & Rahimi, 2025; Rahimi & Arnold, 2025; Reinke et al., 2025). The TWBS may therefore serve as a valuable resource for informing targeted interventions aimed at promoting sustainable teaching careers.

At an institutional and policy level, data derived from the TWBS can provide evidence-based insights to guide initiatives that strengthen organizational support, improve working conditions, and foster positive teacher--student interactions. In this sense, the scale not only contributes to research on teacher well-being but also offers practical utility for educational leaders and policymakers seeking to enhance teacher retention and educational quality in Chile and other Spanish-speaking contexts.

In conclusion, this study underscores the importance of culturally validated measurement tools for advancing research and practice in teacher well-being. The TWBS emerges as a reliable and theoretically grounded instrument for assessing key dimensions of professional well-being among Chilean EFL teachers, while also providing a

solid foundation for future research and practices aimed at improving teachers' well-being and, consequently, the quality of education.

Limitations and future directions

The present study has some limitations. First, the study focused exclusively on EFL school teachers, which inevitably constrains the external validity of the findings. Although the psychometric properties of the TWBS were robust within this population, disciplinary differences in teaching demands, student interaction patterns, and organizational contexts may influence how teacher well-being is experienced and evaluated. Consequently, future research should replicate the validation of the TWBS with teachers from other subject areas and educational disciplines to examine the stability of the factor structure and to strengthen the generalizability of the instrument across the broader teaching population.

Second, the study's methodological approach presents several interconnected limitations. The use of nonprobabilistic snowball sampling likely introduced selection bias, as it favored the inclusion of more socially connected and professionally engaged teachers, potentially underrepresenting isolated or time-constrained professionals. Moreover, reliance on an online survey compounded this issue; it restricted participation to those with adequate digital access and literacy, and the data collection process encountered practical difficulties, including a low response rate and participant-reported technical issues. These factors, alongside the inherent risk of social desirability bias in self-reported data, collectively constrain the representativeness and generalizability of the findings within the broader Chilean teaching population. To enhance future research, we recommend employing probability sampling, utilizing mixed-mode data collection (both online and in-person), and, for online components, proactively calculating anticipated response rates and providing accessible technical support to participants to mitigate these barriers.

Third, although several sociodemographic features were considered to enhance the sample's representativeness, a substantial proportion of participants reported teaching in public institutions and vulnerable settings. Therefore, conducting studies with more diverse samples and including other valuable features (e.g., region) may provide results that better represent teacher well-being in Chile and other countries. Finally, our study assessed teacher well-being in a single moment in time and mainly through quantitative data. Hence, longitudinal studies that evaluate teacher well-being over time and consider collecting qualitative data should be conducted in the future. These studies may provide a more accurate assessment of teacher well-being and effectively guide initiatives to promote it.

Conclusion

In conclusion, the Teacher Well-being Scale (TWBS) is a reliable instrument for use with the Chilean population. Having described its psychometric properties, the present study shows that it has good validity and reliability. Its internal consistency exceeds that of the original scale validation and is considered excellent ($\alpha = .903$), while both EFA and CFA demonstrated a satisfactory fit to the data. Given these results, the Teacher Well-being Scale is expected to be a useful instrument for measuring and better understanding teachers' professional well-being. Therefore, we believe this study can serve as a valuable foundation for future research exploring the relationship between teachers'

well-being and factors such as teaching practices, students' well-being, teacher-student relationships, and student learning outcomes.

Beyond its psychometric contributions, the validation of the TWBS in the Chilean context has relevant implications for educational policy and institutional practices. This brief, reliable, and contextually adapted instrument provides a valuable diagnostic tool for both systemic and local applications. At a systemic level, educational authorities can employ the TWBS to monitor teacher well-being trends, thereby informing public policies aimed at mental health support, professional retention, and the improvement of working conditions. Locally, school leaders can use the scale to identify specific areas of risk---such as workload, organizational support, or student interaction---within their teaching staff. This enables a shift toward evidence-based wellness strategies, fostering healthier work environments that can enhance educational quality and professional sustainability. Ultimately, the TWBS serves as a practical resource for data-informed decision-making within the Chilean educational system.

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Appendix

Escala de bienestar docente

Nos gustaría que reflexionara sobre cómo los siguientes aspectos de su trabajo están influenciando su bienestar como docente. Por favor conteste cada ítem de acuerdo a la siguiente escala:

1. 1 = Negativamente
2. 2 = Mayormente Negativa
3. 3 = Más Negativa que Positivamente
4. 4 = Ni Positiva ni Negativamente
5. 5 = Más Positiva que Negativamente
6. 6 = Mayormente Positiva
7. 7 = Positivamente

Bienestar relacionado con la carga laboral

Pienso que mi bienestar es influenciado por:

1. 1. La cantidad de trabajos, tareas, pruebas/exámenes por corregir
2. 2. Alcanzar a hacer todo mi trabajo durante mi jornada laboral
3. 3. Trabajo administrativo relacionado con la docencia
4. 4. Trabajo docente que realizo fuera del horario escolar
5. 5. El trabajo que se requiere para terminar con mis labores docentes
6. 6. Quedarme hasta tarde después del trabajo para reuniones y actividades

Bienestar organizacional

Pienso que mi bienestar es influenciado por:

1. 7. Relaciones con mis superiores
2. 8. Apoyo ofrecido por los directivos del colegio
3. 9. Reconocimiento a mi labor docente
4. 10. Reglas y funcionamiento del colegio
5. 11. Comunicación entre los miembros del colegio
6. 12. Participación en la toma de decisiones a nivel escolar

Bienestar relacionado a la interacción con los/as estudiantes

Pienso que mi bienestar es influenciado por:

1. 13. Comportamiento de los/as estudiantes
2. 14. Relaciones con los/as estudiantes en mi sala de clases
3. 15. Motivación de los/as estudiantes
4. 16. Manejo del aula