

## **Teacher's Laboral Satisfaction: moderator and mediator roles of work meaningfulness**

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**ABSTRACT – Teacher's Laboral Satisfaction: moderator and mediator roles of work meaningfulness.** The aim of this study was to assess the moderating and mediating effects of work meaningfulness on job satisfaction as perceived by teachers. To achieve this, we utilized self-reported questionnaire responses from 4,813 Chilean teachers. We conducted moderation and mediation analyses based on A. Hayes' framework using this dataset to test our hypotheses. The results provide evidence for the significant moderating and mediating role of work meaningfulness, demonstrating its positive impact on teachers' job satisfaction. Finally, we discuss the theoretical and practical implications of our findings, along with their limitations and future research directions.

**Keywords: Teacher's Work. Laboral Satisfaction. Meaningfulness of Work. Moderation. Mediation.**

**RESUMEN – Satisfacción Laboral Docente: rol moderador y mediador del sentido del trabajo.** El objetivo de esta investigación fue evaluar el rol moderador y mediador que el 'sentido del trabajo' ejerce en la 'satisfacción laboral' percibida por profesores. Para cumplir este objetivo, se emplearon las respuestas de cuestionarios auto-reportados por 4.813 profesores chilenos. A partir de esta base de datos y siguiendo la propuesta de A. Hayes se realizaron 'Análisis de Moderación' y 'Análisis de Mediación'. Los resultados obtenidos entregan evidencia en favor del rol moderador y mediador del 'sentido del trabajo', constituyéndose en una variable que favorece la satisfacción laboral de los profesores. Al concluir, se discuten las implicancias de los resultados obtenidos, sus limitaciones y futuras líneas de investigación.

**Palabras clave: Trabajo Docente. Satisfacción Laboral. Sentido del Trabajo. Moderación. Mediación.**

## Introduction

Based on the existing body of knowledge concerning workplace health and well-being, it can be inferred that the characteristics and conditions of the work environment are the most influential factors in enhancing well-being and mitigating occupational stress (Kirsh; Gewurtz, 2012; Taris; Schaufeli, 2016).

This statement finds strong support in an extensive body of quantitative and qualitative research spanning several decades. It is theoretically underpinned by key explanatory models, including the Job Demand-Control (JDC) model (Karasek, 1979), the Job Demand-Control-Social Support (JDC-S) model (van der Doef; Maes, 1999), and the Job Demands-Resources (JD-R) model (Bakker; Demerouti, 2013). As suggested by Taris and Schaufeli (2016), the central premise of these models posits that well-being and stress experiences in the workplace result from the delicate balance between various positive and negative conditions within a specific work environment.

Specifically, the JD-R model – the most widely used model today – categorizes these workplace conditions as demands and resources (Bakker; Demerouti, 2007). According to proponents of the JD-R model, demands are "[...] those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs (e.g., exhaustion)" (Demerouti *et al.*, 2001, p. 501). On the other hand, job resources refer to:

[...] those physical, psychological, social, or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands at the associated physiological and psychological costs; (c) stimulate personal growth and development (Demerouti *et al.*, 2001, p. 501).

Hence, an upsurge in demands coupled with a decrease in resources predict a reduction in well-being and satisfaction, consequently elevating the probability of encountering psychological distress, such as stress.

These theoretical assumptions have been extensively explored through studies on the teaching profession (Hakanen; Bakker, Schaufeli, 2006; Lorente *et al.*, 2008; Mota; Lopes; Oliveira, 2021; Shernoff *et al.*, 2011; Skaalvik, 2020; Skaalvik; Skaalvik, 2018). In greater detail, these studies on the health and well-being of teachers not only emphasize the significance of working conditions but also illuminate the fact that this occupation experiences one of the highest rates of psychological distress, including anxiety, stress, and burnout (García-Arroyo; Osca-Segovia; Peiró, 2019; García-Arroyo; Osca-Segovia, 2018; Seibt *et al.*, 2013; Skaalvik; Skaalvik, 2021). Consequently, this topic becomes relevant as these long-term experiences of distress are associated with severe mental and physical health issues, absenteeism, attrition from the profession, and reduced productivity, resulting in lower teaching effectiveness (Viac; Frazer, 2020).

One innovation of the JD-R model is the assumption that demands and relevant resources can vary depending on the specific characteristics of each occupation (Taris; Schaufeli, 2016). In this context, available research suggests that the demands and resources significant for teachers at the school level include not only material working conditions (such as salary, pedagogical materials, or infrastructure) but also psychosocial conditions (Hakanen; Bakker; Schaufeli, 2006; Skaalvik; Skaalvik, 2010).

Specifically, psychosocial working conditions refer to the perceptions and evaluations that teachers have regarding the characteristics of their work environment and their daily interactions at school (UNESCO, 2005). In this framework, specialized literature has identified the following psychosocial conditions as the most relevant for teaching work: perception of work pressure or work overload, quality of relationships with students, social support, autonomy or work control, professional development opportunities, and work meaningfulness (Shernoff et al., 2011; Skaalvik; Skaalvik, 2003; Verhoeven et al., 2003a).

Despite advancements in our understanding of the relationship between working conditions and teacher job satisfaction, there are still several gaps in this research area. In particular, there has been considerably less focus on the role that certain psychosocial working conditions can play as resources that enhance job satisfaction and mitigate the impact of job demands. More specifically, one of the less-explored psychosocial working conditions in the teaching profession is the sense of meaningfulness in one's work (Cornejo-Chávez, 2009; Shirley; Hargreaves; Wangia, 2020; Skaalvik; Skaalvik, 2018).

An ongoing research program about teacher occupational well-being is being conducted by Shirley, Hargreaves and Wangia (2020). This approach aligns with the influence of working conditions but adds a key importance to the meanings attributed to work. Namely, in this perspective, teacher well-being is conceived as a series of satisfying perceptions and affective states that teachers experience when, within a favorable work environment, they achieve certain shared moral purposes that give meaning to their work (Shirley; Hargreaves; Wangia, 2020).

It is important to note that, according to Shirley, Hargreaves and Wangia (2020), work meaningfulness comes up between teachers when there are certain appropriate working conditions at school, with particular emphasis on social support and autonomy or work control. In other words, when teachers operate within a work environment defined by effective support mechanisms and where they can exercise their voice and professionalism, they are more likely to engage in socially significant and meaningful activities, thereby leading to increased job satisfaction.

Based on the preceding discussion, it can be concluded that social support and work autonomy, or control, are antecedent conditions that foster the development of work meaningfulness. This, in turn,

plays a pivotal role in shaping teachers' satisfaction and overall well-being. Consistent with this, recent qualitative research has demonstrated a robust connection between the construction of meaning in work and the emergence of positive affective states among teachers. It has also highlighted how the absence of meaning can result in feelings of work alienation, which include unpleasant feelings such as powerlessness, isolation, and lack of personal accomplishment (Santoro, 2011; Tsang, 2019; Tsang; Kwong, 2016; Tsang; Wu, 2022).

Despite the importance of work meaningfulness in teachers' job satisfaction, many of these assumptions are based on qualitative studies. Consequently, there is still a lack of quantitative evidence that can, for example, validate the predictive capacity of social support and autonomy for work meaningfulness.

On the other hand, proponents of the JD-R model have suggested that resources can mitigate the detrimental effect of job demands on job satisfaction, a phenomenon known as the buffering effect. In the context of the teaching profession, this hypothesis has been evaluated with inconclusive results. In more detail, the capacity of social support and autonomy or work control to buffer the deleterious effect of job demands, operationalized through some measure of work overload has been examined (Ibrahim et al., 2021; Quiñones; van den Broeck; de Witte, 2013; Verhoeven et al., 2003b). However, there are no studies about this occupational group that have attempted to test the moderating or buffering effect of work meaningfulness.

In summary, even though the literature on working conditions and job satisfaction in teachers has highlighted the role of psychosocial conditions, the above background indicates that at present there is less empirical production on the "meaning of work." In this regard, it has been pointed out that recent qualitative studies have repositioned the importance of "meaning in work" and also propose that "social support" and "autonomy or control over work" are necessary conditions to develop meaningful work. ; However, there is no quantitative evidence that allows us to maintain that "social support" and "autonomy" predict the "meaning of work." In parallel, the moderating role or buffer effect of "meaning of work" in the relationship between "overload" and "job satisfaction" has not been explored either.

Thus, considering the background, the present study aims to evaluate the mediating and moderating effect of work meaningfulness on teachers' job satisfaction. To accomplish this objective, we used data from self-reported questionnaires filled out by 4,813 Chilean teachers who were instructing 8th-grade students in Language and Communication and Mathematics during the year 2019. Additionally, we applied Hayes's (2013) framework for conducting mediation and moderation analyses.

According to Hayes, the mediation analysis assesses the effect of certain:

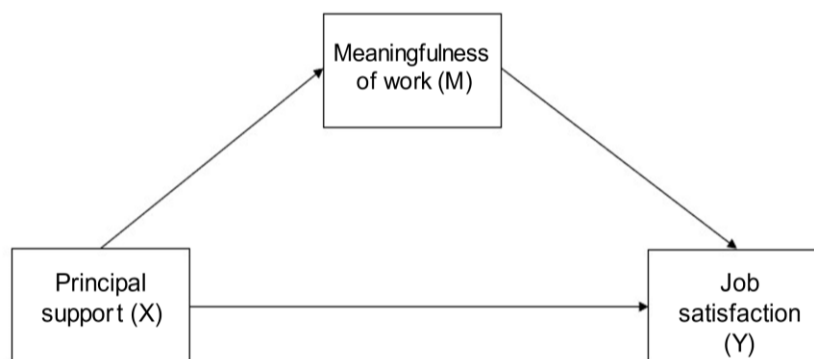
[...] intervening variables, often called *mediators*, are conceptualized as the mechanism through which *X* influences *Y*. That is,

variation in  $X$  causes variation in one or more *mediators*  $M$ , which in turn causes variation in  $Y$  (Hayes, 2013, p. 7).

Consequently, the following mediation hypotheses were formulated:

*H1*: Based on the JD-R model postulates and Shirley et al.'s (2020) proposal, it is expected that principal support ( $X$ ) – a form of social support– will be a predictor of meaningfulness of work ( $M$ ). In parallel, it is anticipated that the variable meaningfulness of work ( $M$ ) will act as a mediator between principal support ( $X$ ) and job satisfaction ( $Y$ ). This first hypothesis is represented in Figure 1.

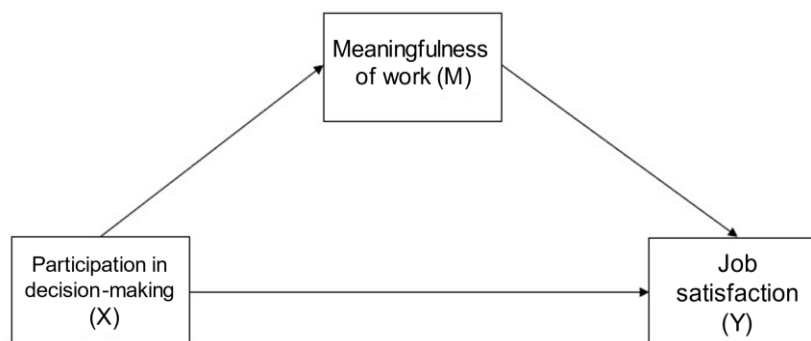
Figure 1 – Hypothesis 1



Source: Elaborated by the authors.

*H2*: Similarly, we hypothesize that teacher participation in pedagogical decision-making ( $X$ ), which represents a form of work control, will serve as a predictor of work meaningfulness ( $M$ ). Furthermore, we anticipate that the variable work meaningfulness ( $M$ ) will act as a mediator in the relationship between teacher participation in pedagogical decision-making ( $X$ ) and job satisfaction ( $Y$ ). This second hypothesis is visually depicted in Figure 2.

Figure 2 – Hypothesis 2

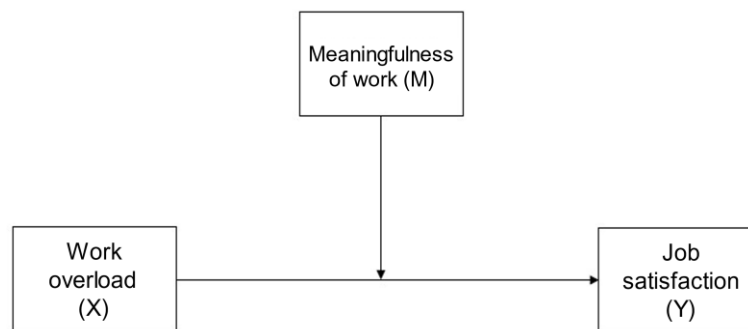


Source: Elaborated by the authors.

Furthermore, Hayes (2013) suggests that moderation analysis allows for examining whether the relationship between an independent variable (X) and a dependent variable (Y) is moderated –attenuated or amplified– by another moderating variable (M). In the author's words: "An association between two variables X and Y is said to be moderated when its size or sign depends on a third variable or set of variables M" (Hayes, 2013, p.8). Thus, the following moderation hypothesis was formulated:

*H3*: Taking into account the notions related to the buffering effect (Bakker; Demerouti, 2013), it is expected that the relationship between the independent variable work overload<sup>1</sup> (X) and the dependent variable job satisfaction (Y) will be moderated by the variable meaningfulness of work (M), reducing the effect of the independent variable on the dependent variable. This third hypothesis is represented in Figure 3.

**Figure 3 – Hypothesis 3**



Source: Elaborated by the authors.

The article proceeds with a review of the main methodological aspects, followed by the presentation of the results obtained about the research objective and hypotheses posed. Finally, the discussion and the main conclusions drawn from this study are presented.

## Method

### *Design and Participants*

The current research utilized a correlational, explanatory, and cross-sectional design. Additionally, this study can be classified as a secondary data analysis since the data being examined were not originally generated for this research and were not collected by the researchers themselves (Asún, 2006).

This research made use of the census database of assessments conducted by the National System for Educational Quality Measurement for the year 2019. Specifically, a set of self-report questionnaires that were administered concurrently with the SIMCE<sup>2</sup> assessments was employed. These questionnaires were completed by Chilean teachers who were teaching Language and Communication and Mathematics to 8th-grade students in 2019.

Upon receiving the database, a comprehensive review was conducted, during which outlier cases, incomplete questionnaires, and empty cells were systematically removed. Following the completion of this data cleansing process, a final database comprising 4,813 teachers was obtained. These participants were drawn from urban schools across Chile, with the largest proportions originating from the most densely populated regions of the country, including the Metropolitan Region (38.7%), the Eighth Region (9.4%), and the Fifth Region (8.6%). Furthermore, the age distribution of the teachers spanned from 22 to 77 years, with a mean age of 40 and a standard deviation of 11.5.

The process of data reduction, along with the absence of specific demographic characteristics<sup>3</sup> in the database, may introduce potential bias into the participant sample. However, it's crucial to emphasize that the discarded data represent only a small fraction of the original sample, accounting for just 14.7%. This minimizes the likelihood of any bias stemming from the data-cleaning process affecting the sample significantly. Additionally, it's worth noting that the SIMCE assessments and the associated questionnaires cover all schools in Chile. Table 1 presents a detailed characterization of the participants.

**Table 1 – Characterization of participating teachers**

Variable	Category	Total (n = 4,813)
Subject	Language and Communication	2,392 (49.7%)
	Mathematics	2,421 (50.3%)
Type of school	Public	1,777 (36.9%)
	Private subsidized	2,293 (47.7%)
	Private	743 (15.4%)
Level of socioeconomic status [SES] school	Low	175 (3.6%)
	Middle-low	1.348 (28%)
	Middle	1.755 (36.5%)
	Middle-high	794 (16.5%)
	High	741 (15.4%)
Working experience	Less than 1 year	147 (3.05%)
	1 year	178 (3.70%)
	2 years	209 (4.34%)
	Between 3 and 4 years	490 (10.18%)
	Between 5 and 9 years	1,216 (25.26%)
	Between 10 and 14 years	966 (20.07%)
	Between 15 and 19 years	452 (9.39%)
20 years or more	2,155 (4%)	

Source: Elaborated by the authors.

### *Measures*

Within the provided database, we identified five questionnaires that facilitated the operationalization of variables relevant to the hypotheses in this research.

Specifically, work overload was measured using the average scores from a five-question work pressure questionnaire. This questionnaire consists of five questions whose items were rated on a 4-point Likert scale: strongly disagree, disagree, agree, and strongly agree. Here are some examples of questions from this questionnaire: 'To what extent do you agree or disagree with the following statement regarding your working conditions?' with phrases such as 'I need more time to prepare classes' or 'I feel a lot of pressure from the management team'.

As for job satisfaction, this was operationalized through the average scores of a questionnaire measuring teachers' satisfaction with their workplace. This questionnaire includes five questions with a 4-point Likert scale: strongly disagree, disagree, agree, and strongly agree. Sample questions from this questionnaire are: 'How much do you agree or disagree with each of the following statements related to the school?' with phrases like 'People at this school value me as a person' or 'This school is a source of well-being for me'.

On the other hand, social support was operationalized through the average scores of a questionnaire measuring the perceived support and closeness of the principal by teachers. This questionnaire comprises five questions with a 4-point Likert scale: strongly disagree, disagree, agree, and strongly agree. Some questions within this questionnaire are: 'How much do you agree or disagree with the following statement related to the school principal?' with phrases like 'Understands the needs and concerns of teachers' or 'Provides effective professional support to teachers'.

Regarding autonomy or work control, this was operationalized through the average scores of a questionnaire measuring the degree of participation in relevant pedagogical decisions. The questionnaire includes seven questions with a 4-point Likert scale: no participation, limited participation, significant participation, and extensive participation. In this questionnaire, questions can be found, for example: 'How much participation have teachers at the school had in defining the following guidelines for pedagogical work?' with statements such as 'Definition of teaching and learning strategies' or 'Definition of assessment strategies'.

As for the meaningfulness of work, this variable was operationalized through the average scores of a questionnaire measuring meaning and commitment attributed to work. This questionnaire incorporates four questions with a 4-point Likert scale: strongly disagree, disagree, agree, and strongly agree. Some of the questions from this questionnaire include: 'How much do you agree or disagree with the following statements related to your work as a teacher?' with state-



ments like 'My work has a lot of meaning and usefulness' or 'My work inspires me'.

Finally, the validity of the questionnaires was assessed through Confirmatory Factor Analysis [CFA] using the following indices and cutoff points as indicators of good overall fit: RMSEA < 0.06, CFI and TLI > 0.95, and SRMR < 0.08. The reliability of the questionnaires was also evaluated using Cronbach's Alpha coefficient, with values equal to or greater than 0.65 considered acceptable. The results obtained provide evidence in favor of the validity and reliability of the questionnaires used. The validity and reliability indicators are available in the following repository: <https://osf.io/zmhar>

### *Data Analysis*

First, correlations between the variables of interest were calculated, along with descriptive statistics, specifically the mean and standard deviation. These analyses were conducted using the statistical software Stata version 14.0.

Both mediation and moderation analyses were performed using the PROCESS macro v3.5 in SPSS software version 25. Mediation analyses were conducted using Model 4 of the PROCESS macro v3.5. Specifically, the direct effects of the independent variables on the dependent variable were estimated, followed by the total effects, which include the effect of the mediating variable on the relationship between X and Y. The significance of these effects was confirmed using confidence intervals based on 5000 bootstrap samples at a 95% confidence level. Finally, the regression was evaluated considering the total effects through the overall F-test, p-value, and R<sup>2</sup>.

Subsequently, moderation analysis was conducted using Model 1 of the PROCESS macro v3.5. The regression and interaction were evaluated using the overall F-test, p-value, and R<sup>2</sup>. Additionally, the interaction effect of the model was assessed through confidence intervals based on 5000 bootstrap samples at a 95% confidence level, confirming the interaction effect when  $p < 0.05$ , and the confidence interval does not include zero. Following Hayes (2013), an interaction test was performed to estimate conditional effects, that is, the effect of X on Y at different values of the moderating variable (1 SD above the Mean, at the Mean, and 1 SD below the Mean).

It is important to note that the mediation and moderation analyses conducted through the PROCESS macro v3.5 use the maximum likelihood estimation method. Recent advances in psychometrics suggest that this method may have some limitations in estimating the relationship between variables measured with ordinal items, especially when the data exhibit high skewness (Asún *et al.*, 2016). However, in this case, the data exhibited relatively low skewness, ranging from -1.179 to -0.125. Therefore, the use of maximum likelihood estimation in this study is perfectly acceptable.

Finally, it should be mentioned that in all analyses, control variables included the type of school, level SES school, and the years of professional experience of the teacher.

## Results

### *Correlation Analysis and Descriptive Statistics*

Table 2 presents correlations among the study variables, along with their respective statistical means and standard deviations. As anticipated, all correlations between work overload and the remaining variables exhibited negative associations, ranging from  $r = -.22$  to  $r = -.31$ . In contrast, correlations between job satisfaction and other work-related conditions showed positive relationships, with values ranging from  $r = .50$  to  $r = .68$ , indicating moderately strong correlations. Particularly noteworthy is the positive correlation observed between principal support and participation in decision-making, which reached an  $r$ -value of  $.52$ . As for the correlations between meaningfulness of work and both principal support and participation in decision-making, they also exhibited positive associations, fluctuating between  $r = .37$  and  $r = .32$ , respectively.

**Table 2– The results of correlation between all studied variables**

Studied variables	1	2	3	4	5
1. Work overload	–				
2. Job satisfaction	-.31	–			
3. Principal support	-.28	.68	–		
4. Participation in decision-making	-.25	.55	.52	–	
5. Meaningfulness of work	-.22	.50	.37	.32	–
Mean	2.66	3.32	3.18	2.87	3.58
Standard deviation	.57	.56	.71	.70	.51

Note: All of the correlations are sig. at the level  $p < 0.01$ .  
Source: Elaborated by the authors.

### *Mediation Analysis*

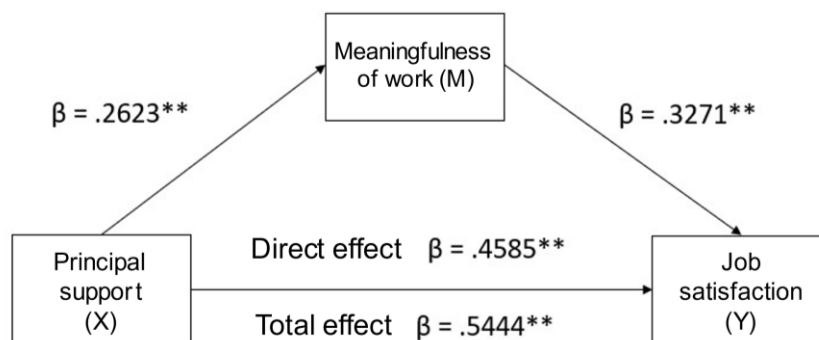
Firstly, a mediation analysis<sup>4</sup> was conducted to assess the mediating role of work meaningfulness (M) in the relationship between principal support (X) and job satisfaction (Y).

As illustrated in Figure 4, the direct effect of principal support (X) exhibits a significant and positive relationship with job satisfaction (Y) ( $\beta = .4585$ ,  $t = 55.41$ ,  $p < .01$ , 95% CI:  $.4423$   $.4748$ ). Additionally, it is observed that the relationship between principal support (X) and work meaningfulness (M) has a significant and positive association, indicating that X has predictive power over M ( $\beta = .2623$ ,  $t = 27.32$ ,  $p < .01$ , 95% CI:  $.2435$   $.2812$ ). Furthermore, work meaningfulness (M)

shows a positive and significant relationship with job satisfaction (Y) ( $\beta = .3271$ ,  $t = 28.28$ ,  $p < .01$ , 95% CI: .3044 .3498).

On the other hand, the total effect of principal support (X) on job satisfaction (Y), which includes the influence of the mediating variable, exhibits a significant and positive relationship ( $\beta = .5444$ ,  $t = 65.48$ ,  $p < .01$ , 95% CI: .5281 .5607). Notably, as expected, the total effect shows an increase compared to the previously presented direct effect. The overall model, considering the total effect, is statistically significant and accounts for 47% of the variance ( $F(4,48) = 1080.03$ ,  $p < .01$ ;  $R^2 = .47$ )<sup>5</sup>.

**Figure 4 – Mediation Analysis for Hypothesis 1**



Note: Non-standardized beta coefficients were utilized.

\*\* All of the correlations are sig. at the level  $p < 0.01$ .

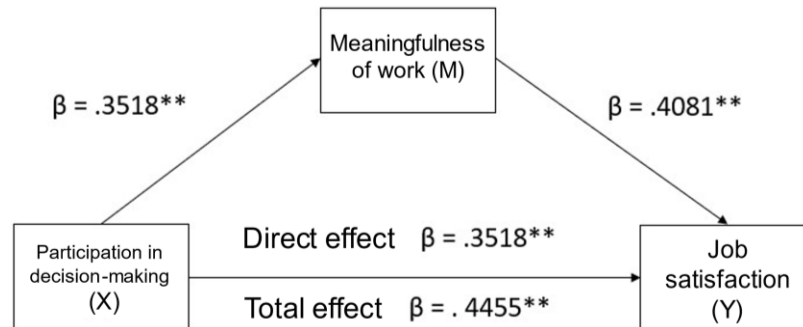
Source: Elaborated by the authors.

Secondly, a mediation analysis was conducted to assess the mediating role of work meaningfulness (M) in the relationship between participation in decision-making (X) and job satisfaction (Y).

As depicted in Figure 5, the direct effect of participation in decision-making (X) demonstrates a significant and positive relationship with job satisfaction (Y) ( $\beta = .3518$ ,  $t = 38.18$ ,  $p < .01$ , 95% CI: .3337 .3698). Additionally, it is evident that participation in decision-making (X) serves as a strong predictor of work meaningfulness (M), as a significant and positive relationship exists between these variables ( $\beta = .2296$ ,  $t = 23.18$ ,  $p < .01$ , 95% CI: .2102 .2490). Furthermore, work meaningfulness (M) exhibits a significant and positive relationship with job satisfaction (Y) ( $\beta = .4081$ ,  $t = 32.07$ ,  $p < .01$ , 95% CI: .3832 .4330).

Finally, the total effect of participation in decision-making (X) on job satisfaction (Y) shows a significant and positive relationship ( $\beta = .4455$ ,  $t = 46.27$ ,  $p < .01$ , 95% CI: .4266 .4644). Consequently, work meaningfulness, acting as a mediating variable, explains the increase in the beta coefficient of the relationship between participation in decision-making (X) and job satisfaction (Y). In terms of the overall model, considering the total effect, it was statistically significant and accounted for 31% of the variance ( $F(4,48) = 541.48$ ,  $p < .01$ ;  $R^2 = .31$ ).

Figure 5 – Mediation Analysis for Hypothesis 2



Note: Non-standardized beta coefficients were utilized.

\*\* All of the correlations are sig. at the level  $p < 0.01$ .

Source: Elaborated by the authors.

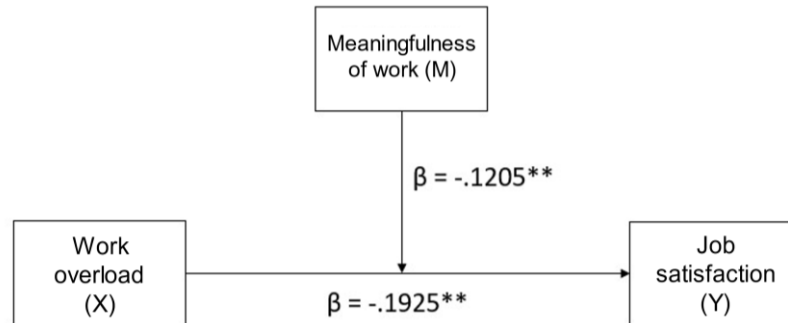
### Moderation Analysis

A moderation analysis was conducted to assess the moderating effect of work meaningfulness (M) on the relationship between work overload (X) and job satisfaction (Y). The overall model was statistically significant, explaining 30% of the variance ( $F(6,48) = 349.92$ ,  $p < .01$ ;  $R^2 = .30$ ).

Furthermore, the direct effects were also significant. As expected, a negative direct effect was found between work overload (X) and job satisfaction (Y) ( $\beta = -.1925$ ,  $t = -15.67$ ,  $p < .01$ , 95% CI:  $-.2166$  -  $-.1684$ ). Additionally, a positive direct effect was observed between work meaningfulness (M) and job satisfaction (Y) ( $\beta = .5276$ ,  $t = 37.46$ ,  $p < .01$ , 95% CI:  $.5000$  -  $.5552$ ). It is worth noting that only the control variable, working experience, was significant ( $\beta = -.0149$ ,  $t = -4.01$ ,  $p < .01$ , 95% CI:  $-.0221$  -  $-.0076$ ).

Finally, the results indicate that the interaction between work meaningfulness and work overload (X) is significant and has a negative sign ( $\beta = -.1205$ ,  $t = -4.95$ ,  $p < .01$ , 95% CI:  $-.1682$  -  $-.0729$ ). Therefore, based on the obtained results, it is reasonable to conclude that work meaningfulness plays a statistically significant moderating role in the relationship between work overload and job satisfaction among faculty members. Figure 6 presents a graphical representation of the moderation analysis.

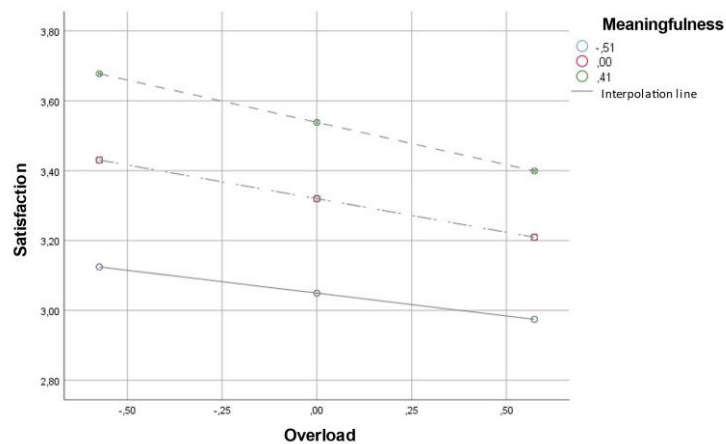
**Figure 6 – Moderation Analysis for Hypothesis 3**



Note: Non-standardized beta coefficients were utilized.  
 \*\* All of the correlations are sig. at the level  $p < 0.01$ .  
 Source: Elaborated by the authors.

Subsequently, an interaction test was conducted to estimate the conditional effects of X on Y at different values of the moderating variable. Figure 7 provides a visual representation of these conditional effects. In general, these results demonstrate that the relationship between work overload (X) and job satisfaction (Y) maintains a consistent trend, with higher work overload consistently leading to decreased job satisfaction. However, the strength of this relationship varies at different levels of the moderating variable. Specifically, when work meaningfulness values are one standard deviation above the mean (.41), the relationship between work overload (X) and job satisfaction (Y) is weaker. In contrast, as work meaningfulness values decrease, either to the mean or one standard deviation below the mean (-.51), the relationship between work overload (X) and job satisfaction (Y) becomes stronger.

**Figure 7 – Visual representation of the conditional effects**



Source: PROCESS v3.5, SPSS 25.

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## Discussion and Conclusions

Work meaningfulness among teachers has received relatively limited attention within the literature on the health and occupational well-being of educators. As a result, this research set out to investigate the mediating and moderating role of teachers' perceived sense of work in their job satisfaction, specifically focusing on Chilean educators.

Aligned with the stated research objective, we conducted mediation and moderation analyses following the framework outlined by Hayes (2013). To be precise, we tested two mediation hypotheses. Hypothesis 1 posited that principal support would not only predict work meaningfulness but also mediate the relationship between principal support and job satisfaction. Conversely, Hypothesis 2 suggested that participation in decision-making would predict a sense of work and, concurrently, mediate the relationship between participation in decision-making and job satisfaction. Additionally, Hypothesis 3 was introduced to examine the moderating role of work meaningfulness in the relationship between work overload and job satisfaction. The results we obtained provide supportive evidence for all three formulated hypotheses.

With more detail, the mediation analyses yielded two significant findings. Firstly, in line with the hypotheses proposed by Shirley *et al.* (2020), both principal support and participation in decision-making emerged as predictors of work meaningfulness. Secondly, while both principal support and participation in decision-making independently demonstrated strong predictive power for job satisfaction, their effects were further augmented, or mediated, by the influence of work meaningfulness.

These results suggest that both social support and control over work are essential conditions for constructing meaning in everyday activities. Furthermore, when teachers engage in work that holds meaning and societal utility, their job satisfaction perceptions increase. This can be better understood by considering those satisfactory emotions, “[...] occur when educators pursued a deep sense of purpose together within a work environment that made it achievable; when there was collaborative professionalism that was founded on strong relationships with mutual respect for expertise; and when there was time and space to know people well and perform the job in a way that supported a sense of accomplishment. Well-being was a collective and not just an individual phenomenon” (Shirley; Hargreaves; Wangia, 2020, p. 2).

Furthermore, the results of the moderation analysis affirm the buffering effect of work meaningfulness on the relationship between work overload and job satisfaction. These findings are consistent with the theoretical framework of the JD-R model and underscore the significance of psychosocial working conditions as a mechanism that can either alleviate or exacerbate teachers' perceptions of workload (Bak-

ker; Demerouti, 2013). In particular, with regard to work meaningfulness, previous research has indicated that when teachers perceive their work as meaningful and socially impactful, with a focus on the intellectual and socio-emotional growth of their students, their job satisfaction is notably higher, even in the face of significant challenges such as student socioeconomic vulnerability or increased workload demands (Santoro, 2011; Shirley *et al.*, 2020; Tsang, 2019).

In this context, an original contribution of this research pertains to the use of a quantitative approach and, more specifically, the application of multivariate techniques to assess the relationships between working conditions and teacher satisfaction. In this regard, conducting mediation and moderation analyses provided clear evidence of how the variables of interest are interconnected, yielding estimates of the size of the direct and indirect effects of these relationships. Thus, this research has contributed significantly by providing important evidence in favor of hypotheses derived from previous qualitative research (e.g., Shirley *et al.*, 2020), confirming that the hypothesized relationships exhibit a statistically significant effect size in a large sample of Chilean teachers.

The presented results not only have implications in the theoretical realm but also in terms of educational policy and school management. Specifically, the results reported here support the notion that educational policies should implement support systems that effectively promote collaboration and autonomy among teachers. This entails avoiding management models that lean towards individual and externally regulated work, which tends to limit spaces for professional collaboration and the expression of teachers' voices. This consideration is also relevant at the level of school administrators and teacher unions, as it encourages the utilization of meeting instances to facilitate the exchange of practices and the construction of collective meaning around work. Ultimately, while not disregarding the importance of material conditions (e.g., pedagogical materials or infrastructure), the findings of this research emphasize the significance of appropriately managing the psychosocial conditions of teaching, as they constitute a fundamental factor in improving the quality of teachers' work life.

While this research has made valuable contributions, it is essential to acknowledge certain limitations that may restrict the generalizability of the findings. Firstly, despite the use of a substantial database (N = 4,813), it is important to note that the participants were limited to a specific group: Chilean teachers teaching Language and Communication and Mathematics subjects to 8th-grade students in 2019. This limitation may challenge the applicability of the results to other types of teachers or educational systems in different countries. Additionally, as detailed in the methodology section, the reduction of the dataset and the absence of certain sociodemographic characteristics could introduce some sample bias. Secondly, this study relies on secondary data and pre-existing instruments, necessitating the adaptation of the constructs to the operational definitions provided by

these instruments. Furthermore, it is worth mentioning that the operationalization of social support focused solely on principal support, without consideration of other forms of social support, such as peer collaboration, for which regrettably, no data was available.

Given the mentioned limitations, it is feasible to propose some directions for future research. Addressing the first limitation, it is crucial to replicate the study using samples with diverse and representative characteristics that align with the reference population, encompassing teachers from various subjects and educational levels. Concerning the second limitation, in order to enhance the validity of the results, future studies could assess the constructs examined here—and potentially those not included (e.g., "peer collaboration")—by employing alternative psychometric instruments derived from ongoing research programs specializing in teacher occupational well-being (e.g., Skaalvik & Skaalvik, 2018).

Finally, the data used pertain to the period before the COVID-19 pandemic, an event that triggered significant transformations in the circumstances under which teaching is conducted globally. In the case of Chile, the pandemic period was experienced in a varied and unequal manner, with marked disparities. It posed particular challenges for female teachers, those with limited years of experience, and those serving socioeconomically disadvantaged communities (López *et al.*, 2021). As a result, future research should focus on investigating how this event has altered teachers' working conditions and impacted their job satisfaction<sup>6</sup>.

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## Notes

- <sup>1</sup> In this study, job demands have been operationalized through a measure of work overload, as is commonly used in most research based on the JD-R model.
- <sup>2</sup> Abbreviation for the National System for Educational Quality Measurement, a standardized assessment system applied on a nationwide scale in Chile. The database used in this study contained the learning outcomes for Language and Communication and Mathematics for 8th-grade students. Its implementation was accompanied by surveys that inquired about the perceptions of teachers regarding different aspects of the school environment.
- <sup>3</sup> The database did not have available information regarding gender distribution.
- <sup>4</sup> In the mediation analyses, non-standardized beta coefficients were utilized.
- <sup>5</sup> The control variables did not report statistical significance.
- <sup>6</sup> Acknowledgements: The authors acknowledge the support from Programa de Becas de Doctorado Nacional ANID/Chile 21212101, SCIA ANID CIE160009, FONDECYT 1191267 and ONRG N62909-23-1-2006.



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