

# Investigating Teachers' Job Satisfaction: The Roles of School Leadership, Workload Stress and Teacher Self-Efficacy: Evidence from TALIS 2018, UAE Data

# Mohammed Issah<sup>1</sup>, Braimah Awaisu Imurana<sup>2</sup>, Richard Oduro<sup>3</sup>, Isaac Nyarko Adu<sup>4</sup>, Mohammed Borhandden Musah<sup>1</sup>

<sup>1</sup>Bahrain Teachers College, Department of Education Studies, University of Bahrain, Manama, The Kingdom of Bahrain
 <sup>2</sup>Department of Political Science Education, University of Education, Winneba, Ghana
 <sup>3</sup>Department of Applied Finance & Policy Management, University of Education, Winneba, Ghana
 <sup>4</sup>Department of Management Sciences, University of Education, Winneba, Ghana
 Email: missah@uob.edu.bh, brawaisu@gmail.com, roduro@uew.edu.gh, inadu@uew.edu.gh, mmusah@uob.edu.bh

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# Abstract

In this study, the roles of school leadership, workload stress and teacher selfefficacy in ensuring teacher job satisfaction among 8,648 school principals and teachers from the United Arab Emirates (UAE) who took part in the 2018 Teaching and Learning International Survey (TALIS) were examined. Structural equation modelling (SEM) was used, and it revealed that workload stress and self-efficacy have a significantly positive effect on teacher job satisfaction. However, school leadership had no effect on teacher job satisfaction. The results imply that UAE teachers who perceive themselves as capable and have a manageable workload are more likely to be satisfied with their jobs. This suggests the need for immediate interventions to manage and mitigate stress, potentially through workload reduction and effective stress management programs.

# **Keywords**

School Leadership, Teacher Job Satisfaction, Workload, TALIS, Stress, Self-Efficacy, Structural Equation Modelling

# **1. Introduction and Background**

The quality of education is intimately connected to teachers' satisfaction with their profession. This satisfaction, in turn, is influenced by several complex factors,

such as school leadership, workload stress, and teacher self-efficacy. In the context of the United Arab Emirates (UAE), these aspects assume particular significance, given the country's unique blend of cultural tradition and its quest for modernity. School leadership has emerged as a key determinant of job satisfaction among teachers. Research has established that effective leadership fosters a positive environment and supportive climate, resulting in higher job satisfaction (Jentsch et al., 2023). Particularly in the UAE, Alkhateri et al. (2019) have emphasized the role of leadership in job satisfaction in the unique cultural milieu of schools in Ras-Al-Khaimah. The dynamics of leadership, therefore, become critical, not just as a global educational phenomenon but as a culturally embedded feature within the UAE's educational landscape.

Workload stress is another vital factor influencing job satisfaction. The recent global shift to online teaching during the COVID-19 pandemic has further complicated this issue. The adaptation to new modalities of instruction has had a significant effect on workload and consequently on job satisfaction, not only worldwide but also in the UAE (Szabó et al., 2022; Yahya, 2022). The challenge of adapting to these new modalities and the accompanying workload demands has created a need for a nuanced understanding of this factor within the specific context of the UAE's diverse educational settings.

Teacher self-efficacy, or a teacher's belief in their ability to teach effectively, has also been shown to be closely correlated with job satisfaction. Research such as that conducted by Zhang et al. (2021) and Ortan et al. (2021) has indicated a clear causal relationship between these variables. This concept of self-efficacy has also been explored by Huang et al. (2019), reinforcing the idea that a teacher's confidence in their abilities is a pivotal aspect of their overall satisfaction. In the UAE's educational environment, where cultural, institutional, and personal factors might shape self-efficacy beliefs differently, this relationship becomes an interesting area of investigation.

While these general trends are well-established, the UAE-specific data paints a more complex picture. Comparative studies like those conducted by Matherly et al. (2022) between UAE and Bahrain, or the examination of organizational conditions contributing to teacher turnover in private schools of the UAE by Mohammad & Borkoski, reflect the intricate nature of teacher job satisfaction within the country. Differences across various emirates, school types, and teacher demographics might further influence these dynamics.

Given this complex and multifaceted context, several questions arise that call for thorough investigation. How does school leadership in the UAE, characterized by its blend of tradition and modernity, influence teachers' job satisfaction? What are the unique challenges of workload stress faced by teachers in the UAE, particularly in the era of COVID-19 and the transition to online education? How do self-efficacy beliefs among UAE teachers correlate with their satisfaction, and how might these beliefs be influenced by cultural, institutional, and personal factors? Finally, how do these variables interact across different regions, schools, and teacher demographics within the country?

Investigating these questions promises not only to contribute to the global discourse on teacher job satisfaction but also to offer insights tailored to the UAE's distinct educational environment. Such understanding could guide educational policy and leadership in the UAE, leading to enhanced teacher job satisfaction and consequently, contributing to the ongoing improvement of education in the country.

While there has been significant research on teacher job satisfaction and the roles of school leadership, workload stress, and teacher self-efficacy, the specific context of the UAE presents a unique opportunity and need for further study. The complex interplay of these factors within the country's educational landscape represents an uncharted area of inquiry. Exploration of these aspects within the UAE could shed new light on the underlying dynamics of job satisfaction, providing a valuable foundation for policy-making and leadership in the education sector, both in the UAE and beyond. The insights drawn from such investigation could not only enhance the well-being of teachers but also elevate the overall quality of education, aligning with the broader educational vision and values of the UAE.

# **1.1. TALIS**

The scholarship on teachers' job satisfaction in the UAE, especially in the context of the TALIS 2018 data, offers disparate foci and some glaring omissions. Zhang et al. (2021) explore the kernel causality between teacher self-efficacy and job satisfaction, revealing the interplay of these factors in a global context but falling short in isolating the nuances specific to the UAE. Similarly, Jentsch et al. (2023) probe into self-efficacy and school leadership's roles but mainly concentrate on a Western context, leaving a geographical gap. Ortan et al. (2021) highlight the direct correlation between self-efficacy and teacher well-being, which indirectly points to job satisfaction, yet the study does not delve into the critical dimension of workload stress (Jomuad et al., 2021; Parveen & Bano, 2019).

Studies that directly focus on the UAE, such as those by Alkhateri et al. (2019) and Ibrahim & Al-Taneiji (2019), offer some insights into antecedents for job satisfaction and what quantitative metrics fail to capture but are not exhaustive in their analysis of school leadership and teacher self-efficacy. There is an evident scarcity of literature on how school leadership (Leithwood et al., 2019b; Day et al., 2020) and workload stress (Jerrim & Sims, 2021) specifically impact teachers' job satisfaction within the UAE context.

In essence, while each study contributes valuable dimensions to the understanding of job satisfaction, a synthesized framework incorporating self-efficacy, school leadership, and workload stress in the UAE remains conspicuously absent. This absence calls for more integrated research to capture the multifaceted nature of teacher job satisfaction in the rapidly evolving educational landscape of the UAE.

#### **1.2. UAE Context**

The literature on teachers' job satisfaction in the UAE context, particularly in re-

lation to the TALIS 2018 data, reveals intricate relationships among variables such as school leadership, workload stress, and teacher self-efficacy. Zhang et al. (2021) found a causal link between teacher self-efficacy and job satisfaction, suggesting that effective school climates can enhance well-being and reduce stress. This aligns with findings from Ortan, Simut, & Simut (2021) and Jentsch et al. (2023), which emphasize the significant role self-efficacy plays in mediating teachers' work environment and their overall job satisfaction.

However, the current literature shows an overly optimistic stance on the power of self-efficacy, sometimes overlooking other critical factors such as workload and organizational support. For example, Jomuad et al. (2021) and Jerrim & Sims (2021) both highlight that workload stress contributes to teacher burnout and reduced job satisfaction, a perspective seemingly underrepresented in Zhang et al.'s (2021) and Ortan et al.'s (2021) works.

The role of school leadership in influencing teachers' job satisfaction is another area that has received ample attention but lacks depth in terms of contextual factors. Alkhateri et al. (2019) and Mohammad & Borkoski argue that organizational conditions significantly affect job satisfaction in UAE schools. However, they insufficiently address how leadership style and practices contribute to those conditions. In contrast, Leithwood et al. (2019b) provide an internationally applicable framework for effective school leadership, but its specific applicability to the UAE context is not clear.

Further, the literature largely ignores the impact of external factors such as policy changes and societal expectations on teacher job satisfaction. Mavrogordato & White (2020) examine how policy implementation influences educational opportunities but do not directly link this to teacher job satisfaction in the UAE. Interestingly, most studies focus on public schools and traditional teaching settings. Yahya (2022) is one of the few to explore job satisfaction in private schools in Abu Dhabi, pointing to the need for more diversified samples in future research.

To summarize, while self-efficacy is acknowledged as a crucial mediator, an undue focus on it may obscure the complex interplay of other organizational and extrinsic factors. Moreover, the literature could benefit from a more nuanced understanding of the role of school leadership, especially in the culturally and organizationally diverse setting of the UAE. Finally, future studies should diversify their scope beyond traditional teaching environments to offer a more comprehensive picture.

## 2. Literature Review

## 2.1. School Leadership

The concept of school leadership has been a focal point in educational research, often characterized as a catalyst for school effectiveness, teacher morale, and student achievement. Various theoretical frameworks and models seek to unravel the complex mechanisms through which leadership exerts its influence.

Leithwood, Sun, & Schumacker (2019b) present "The Four Paths Model," pos-

iting that leadership impacts student learning through rational, emotional, organizational, and family paths. While the framework provides a comprehensive overview, it may be critiqued for its ambition, as the categorization risks being too broad to generate specific policy recommendations or targeted interventions.

Another seminal work by Day, Sammons, & Gorgen (2020) discusses the attributes of "Successful School Leadership," emphasizing the need for vision, interpersonal skills, and adaptability. Although the research offers actionable insights, it somewhat overlooks the contextual variables—like socio-economic factors—that may mediate the relationship between leadership styles and school success.

Khalifa, Gooden, & Davis (2016) introduce a different lens by focusing on "Culturally Responsive School Leadership." They highlight the importance of acknowledging and incorporating the cultural and social identities of students in leadership practices. This perspective is critical but tends to sideline administrative and curriculum-based leadership activities in its focus on social justice and inclusivity.

Leithwood, Harris, & Hopkins (2019a) revisit "Seven Strong Claims About Successful School Leadership," affirming the importance of shared vision, fostering a conducive culture, and being responsive to the environment. The claims, while evidence-based, lack a critical examination of the methodological robustness of the studies that informed them, creating potential validity concerns.

Mavrogordato & White (2020) delve into the implementation of policies aimed at English learners. They argue that leadership can either facilitate or hinder social justice depending on how policies are enacted. However, their focus is quite niche, and it raises the question of generalizability to broader school leadership concerns.

Gumus et al. (2018) contribute a systematic review of leadership models spanning 1980 to 2014. Their work is valuable for its historical overview but falls short of offering a critical analysis of how leadership paradigms have adapted to modern educational challenges.

In sum, the literature on school leadership is vast and multi-dimensional but lacks nuanced studies that explore the interplay of leadership with other variables like teacher efficacy, parental involvement, and socio-economic factors. There's a noticeable tendency to treat leadership in isolation, often disregarding the ecosystem in which it operates.

## 2.2. Workload Stress

The concept of "workload stress" in the teaching profession has been intensely scrutinized in academia, with scholars exploring its impact on various dimensions such as job satisfaction, burnout, and well-being. A synthesized understanding of the available literature points towards a multi-faceted construct with far-reaching implications.

Jomuad et al. (2021) provide a comprehensive analysis of the link between workload stress and burnout, demonstrating that excessive work commitments contribute to both emotional exhaustion and diminished work performance. Although methodologically rigorous, this study tends to overlook the potential mediating variables, such as work-life balance or external stressors, which might affect the relationship between workload and burnout.

In a nuanced approach, Jerrim and Sims (2021) challenge the conventional wisdom that increased workload universally deteriorates well-being. They suggest that the effect of workload on teacher well-being is non-linear and dependent on the specific types of tasks involved. While the study offers an innovative lens, the granularity of task types could be further explored to offer specific recommendations for policy interventions.

Self-efficacy and school leadership emerge as important variables in the study by Jentsch et al. (2023). Their findings imply that workload stress can be mediated by teacher's self-efficacy and the quality of school leadership. While the study opens up avenues for organizational interventions, the complex interactions between self-efficacy, leadership, and workload stress require more focused inquiry.

Zhang et al. (2021) tackle workload stress from a systems perspective, linking it with school climate and overall workplace well-being. They argue for a causal relationship where self-efficacy and job satisfaction mediate the effects of workload stress. While the study is ambitious in its scope, it tends to dilute the nuanced variations in workload stress across different educational settings.

The literature also explores interventions to mitigate workload stress. Fabbro et al. (2020) demonstrate that mindfulness training can significantly reduce stress and burnout levels in teachers. However, the study neglects to explore whether mindfulness training can also improve coping mechanisms specifically for workload stress, which limits its applicability.

The relationship between workload stress and teachers' emotional states is also not to be neglected. Parveen and Bano (2019) delve into the moderating role of teachers' emotions between stress and job satisfaction but do not focus specifically on workload stress, thus leaving a gap in the literature.

In conclusion, while the existing body of work offers a myriad of perspectives on workload stress, there are evident limitations. Most notably, there is a lack of studies that investigate the complex interplay between workload stress and other key variables in a multi-dimensional manner. Moreover, there is a need for further research that looks into effective interventions tailored to alleviate workload stress specifically.

## 2.3. Teacher Self-Efficacy

The concept of teacher self-efficacy has been rigorously examined in academic literature, and it is seen as a cornerstone for understanding job satisfaction, school climate, and overall teacher well-being. However, the body of literature displays varying approaches to dissecting the many facets of teacher self-efficacy, as well as its effects and interrelations with other constructs.

One of the most explored angles is the correlation between teacher self-efficacy and job satisfaction. Zhang et al. (2021) delved into the complex relationships be-

tween self-efficacy, job satisfaction, and workplace well-being using kernel causality. Their work suggests that self-efficacy is an antecedent to both job satisfaction and workplace well-being (Zhang et al., 2021). Similarly, Ortan, Simut, and Simut (2021) and Jentsch et al. (2023) emphasize that self-efficacy plays a crucial role in determining teachers' job satisfaction and stress levels, suggesting a direct relationship. While these studies employ quantitative methodologies, they remain limited in their scope by not exploring external factors like administrative support and school leadership, which have been found to be significant in other studies (Toropova et al., 2021; Yahya, 2022).

In contrast, Huang et al. (2019) propose that teacher self-efficacy doesn't directly impact job satisfaction but rather mediates the effects through self-monitoring. Their model adds a layer of complexity that is often overlooked in more straightforward correlational models. However, Huang et al. do not adequately engage with the existing literature that discusses the direct relationships, leading to potential gaps in theory integration.

Some recent studies have focused on the impact of extraordinary circumstances like the COVID-19 pandemic on teachers' self-efficacy. Szabó et al. (2022) reported that the pandemic negatively influenced teachers' self-efficacy, workload, and job satisfaction, presenting a compelling argument for considering external societal factors in the self-efficacy discourse. Yet, while contributing to a timelier understanding of the subject, the paper lacks historical context and does not consider how teacher self-efficacy has evolved over time, which limits its applicability.

Work by Täht et al. (2023) deviates from the general job satisfaction and wellbeing discourse by examining what motivates and demotivates mathematics teachers specifically. Their findings indicate that self-efficacy correlates with both work satisfaction and years of work experience, adding a subject-specific and temporal dimension to the debate. This study's limited scope, however, raises the question of whether these findings are generalizable across disciplines.

On a meta-analytical level, Kasalak and Dagyar (2020) aimed to synthesize the relationship between teacher self-efficacy and job satisfaction. Their work is especially valuable for giving an overarching view but falls short in considering variables like school climate and external circumstances, which have been deemed crucial in individual studies (Perera et al., 2019; Wray et al., 2022).

Lastly, it is noteworthy that much of the literature on self-efficacy profiles and determinants seems to discuss outcomes predominantly in the Western educational context. For example, Matherly et al. (2022) offer an important perspective by examining UAE and Bahrain teachers, but their study stands somewhat isolated in an otherwise Western-centric academic landscape.

The literature on teacher self-efficacy provides a rich but somewhat fragmented picture. While there is a consensus that self-efficacy is instrumental in shaping teachers' professional lives, the mechanisms and mediators are still a subject of debate. Additionally, the majority of studies are skewed towards Western educational settings, limiting the generalizability of findings. Future research should aim for a more comprehensive understanding by integrating various constructs and widening the geographical scope of studies.

## 2.4. Teacher Job Satisfaction

Teacher job satisfaction is a pivotal aspect of the educational landscape, attracting attention across diverse geographical and cultural contexts. The interplay between teacher self-efficacy, job satisfaction, school climate, and workplace well-being is explored by Zhang et al. (2021). This study underscores the importance of self-belief in determining how satisfied teachers are with their roles. Similarly, Ortan et al. (2021) affirm the connection between self-efficacy, job satisfaction, and over-all well-being, emphasizing its impact on the K-12 educational system. The role of school leadership in influencing job satisfaction is another significant strand in the literature. Jentsch et al. (2023) present an in-depth analysis of how self-efficacy and school leadership affect teachers' stress and working environments, highlighting the need for supportive and effective management.

Considering a specific geographical context, the study by Alkhateri et al. (2019) offers evidence from UAE schools regarding the antecedents for job satisfaction. This work adds a nuanced understanding of how factors like school leadership may manifest differently in the UAE context. Recent challenges, such as the shift to online teaching due to the COVID-19 pandemic, have added layers of complexity to the issue. Szabó et al. (2022) explore how this transition affected teachers' self-efficacy, workload, and satisfaction, introducing new dimensions to the ongoing discourse.

Finally, comparative perspectives, such as the study by Matherly et al. (2022) on UAE and Bahrain teachers, illustrate the interplay between job satisfaction and organizational commitment, broadening the understanding of job satisfaction within and across different cultural and organizational contexts. This body of literature collectively sketches a multifaceted picture of teacher job satisfaction, revealing its complexity and the numerous factors that influence it across different settings and circumstances.

## 2.5. Theoretical Review

Contingency Theory, as explained by Van de Ven and Drazin (1984), suggests that the effectiveness of leadership styles in schools is contingent on the context. This implies that school leaders must adapt their strategies to suit the specific environmental demands and teacher needs, which can significantly influence teacher job satisfaction. The Job Demands-Resources (JD-R) model by Bakker and Demerouti (2017) offers a dual perspective where job demands (like workload stress) can lead to burnout, while job resources (such as support from leadership and self-efficacy) can foster engagement and satisfaction. This model highlights the balancing act between demands and resources in influencing teacher's job satisfaction.

Bandura's (1999) Social Cognitive Theory emphasizes the role of self-efficacy in job satisfaction. According to Bandura, self-efficacy is the belief in one's ability to successfully undertake a given task. Teachers with higher self-efficacy are likely to be more resilient to stress and more satisfied with their job, as they believe in their capability to handle challenges effectively. Herzberg's Two-Factor Theory could be applied to interpret how intrinsic factors (like teacher self-efficacy and recognition) and extrinsic factors (such as workload and school policies) influences job satisfaction. Intrinsic factors are often more critical in creating job satisfaction, while extrinsic factors are more likely to cause dissatisfaction if not managed well. Hobfoll's (2011) Conservation of Resources (COR) theory further supports this by suggesting that stress results from the threat of resource loss. In the context of education, resources could include time, support from leadership, and personal resilience. The loss or inadequacy of these resources could lead to reduced job satisfaction among teachers.

Finally, Expectancy Theory, as discussed by Jones, Corbin, & Fromme (2001), posits that job satisfaction is influenced by the belief that one's effort will lead to desired outcomes. Teachers who believe that their efforts in managing workload stress and enhancing self-efficacy will lead to personal and professional rewards are more likely to experience job satisfaction.

Together, these theories provide a comprehensive view of the multiple factors influencing teacher job satisfaction, highlighting the interplay between school leadership, workload stress, teacher self-efficacy, and the broader educational environment.

# 2.6. Association of School Leadership, Workload Stress, Self-Efficacy and Job Satisfaction

The body of research on teacher well-being, workload stress, self-efficacy, and job satisfaction has yielded insights into the complex interplay of these variables, often with school leadership as a key mediator. The multifaceted nature of this subject necessitates an empirical review to cohesively integrate these lines of research.

Self-efficacy which refers to teachers' belief in their ability to perform tasks effectively emerges as a pivotal variable that impacts both job satisfaction and workload stress. Jentsch et al. (2023) argue that self-efficacy plays a crucial role in both job satisfaction and stress levels, partly determined by the nature of school leadership. This is corroborated by Ortan, Simut, & Simut (2021), who found a strong relationship between self-efficacy and overall teacher well-being. Furthermore, the quality of school leadership correlates significantly with teachers' self-efficacy (Leithwood et al., 2019b), hinting at a multi-level relationship.

Workload stress is another critical factor impacting teacher well-being. Szabó et al. (2022) shed light on how the pandemic and the subsequent shift to online teaching contributed to increased workload, thereby affecting self-efficacy and job satisfaction negatively. Here, the role of school leadership could be indispensable. Effective leadership can potentially reduce teacher workload stress by streamlining administrative processes and providing adequate resources (Mavrogordato & White, 2020).

Job satisfaction, closely related to both self-efficacy and workload stress, also

shares a complex relationship with school leadership. Toropova et al. (2021) have delineated how working conditions—often shaped by effective school leadership— significantly affect job satisfaction. Moreover, Zhang et al. (2021) have pointed out that a conducive school climate, which is a byproduct of effective leadership, positively impacts job satisfaction and workplace well-being. There is also research suggesting that these relationships are often mediated by other variables such as teacher characteristics (Täht et al., 2023) and specific teaching tasks (Jerrim & Sims, 2021). However, the quality of leadership stands out as a cross-cutting issue that impacts all these variables, either directly or indirectly (Leithwood et al., 2019b; Mavrogordato & White, 2020).

The existing literature converges on the point that self-efficacy, workload stress, and job satisfaction are interrelated in complex ways, often mediated or influenced by the quality of school leadership. While these relationships are not entirely linear and are subject to various external and internal influences, effective school leadership appears to be a critical factor in enhancing teacher self-efficacy, reducing workload stress, and improving job satisfaction. Future research may explore the nuanced ways in which leadership styles and strategies be tailored to positively influence these key variables in teacher well-being. However, the present study's hypothesis is the interplay between school leadership, teacher efficacy, and workload stress and teacher job satisfaction.

# **3. Research Methods**

# 3.1. Data and Participants

The data was drawn from the Organization for Economic Cooperation and Development's (OECD) TALIS 2018 database. TALIS18 is an international survey on teaching and learning environment administered periodically to teachers and principals of participating OCED countries. The research design is cross-sectional. All 48 participating countries/economies are mandated by the TALIS 2018 to administer the ISCED 2 core survey teachers and their principals (OECD, 2019: p. 112). Teachers' job satisfaction is the dependent variable while school leadership, workload stress and self-efficacy as the independent variables.

Over a hundred thousand teachers and principals participated in the third cycle of TALIS 2018. A two-stage stratified probability sampling procedure was used. A total of 8648 teachers and school principals from the United Arab Emirates took part in the TALIS 2018. For data quality assurance, countries were permitted to run standardized checks on their data to detect inconsistencies, duplicate records or erroneous data entry (OECD, 2019).

# 3.2. Research Model and Hypotheses

The proposed research model for the present study is in **Figure 1**. From the insight obtained from the review of the relevant literature, the following hypothesis was developed.

**Hypothesis 1:** School leadership is statistically significantly associated with teachers' overall job satisfaction.

**Hypothesis 2:** Teachers' workload stress is statistically significantly associated with teachers' overall job satisfaction.

**Hypothesis 3:** Teachers' self-efficacy is statistically significantly related to teachers' overall job satisfaction.



Figure 1. Research model.

## 3.3. Measures

The participants responded to 20 items underlying four main factors from TALIS 2018 data.

#### 3.3.1. School Leadership

Principals of the schools were asked to indicate how often they engaged in the following 3 activities (from 1 = Never/Rarely to 4 = *Very often*) (see **Table 2**). The items are: (1) "I took actions to support co-operation among teachers to develop new teaching practices." (2) "I took actions to ensure teachers take responsibility for improving their teaching skills." (3) "I took actions to ensure that teachers feel responsible for their students learning outcomes." The Cronbach alpha for the school leadership scale is .863 and omega coefficient is .863.

## 3.3.2. Teacher Workload Stress

Teachers were asked to rate the extent to how strongly they agree or disagree with 5 items (from 1 = Strongly disagree to 4 = Strongly agree) (see Table 2). A sample item is: "Work stress having too much preparation". The Cronbach alpha for the

workload stress scale is .860 and omega coefficient is .860.

## 3.3.3. Teacher Self-Efficacy

Teachers were asked how they generally feel about their job and were asked to indicate how often they engage in the following 6 activities (items) (from Never or Almost Never, Occasionally, Frequently, Always) (see **Table 2**). A sample item is: "I give tasks that require students to think critically". The Cronbach alpha for the self-efficacy scale is .789 and omega coefficient is .789.

## 3.3.4. Job Satisfaction (Overall)

Teachers were asked how they generally felt about their job and were asked to rate the extent to which they agreed or disagreed with 6 statements (items) about their job satisfaction (from  $1 = Strongly \ disagree$  to  $4 = Strongly \ agree$ ) (see Table 2). A sample item is: "The advantages of being a teacher clearly outweigh the disadvantages". The Cronbach alpha for the job satisfaction scale is .802 and omega coefficient is .802.

# 4. Data Analysis

A structural equation modelling (SEM) approach using Mplus Version 8.3 (Muthen & Muthen, 1998-2019) was used to test the hypothesized model. A measurement model was established to test the validity of the latent constructs through confirmatory factor analysis (CFA). SEM and CFA were estimated using the robust maximum likelihood (MLR) estimator to compute the parameter estimates and standard errors through Mplus. The teacher weight (TCHWGT) and teacher ID (IDTEACH) in TALIS dataset were used as weighting and clustering variables to address unequal probability of selection and the non-independence of teachers (OECD, 2019). To calculate standard errors and chi-square test statistics, full information maximum likelihood estimation (FIML) in Mplus, which is robust to non-normality was used. Missing data was handled using the Mplus multiple imputation procedure (Asparouhov & Muthen, 2010).

As recommended by Kline (2016), multiple fit indices for evaluating model fit were reported. Comparative fit index (CFI) and Tucker-Lewis index (TLI) with values greater than .90 indicate acceptable good model fit. Root mean square error of approximation (RMSEA) less than or equal to .05 indicates close approximate fit, values between .05 and .08 indicate reasonable error of approximation, and values greater than or equal to .10 indicate poor fit. Standardized root mean square residual (SRMR) values less than or equal to .08 suggest an acceptable fit (Hu & Bentler, 1999).

# 4.1. Descriptive Statistics

The mean, standard deviation, skewness and kurtosis for all the constructs are reported in **Table 1**. The mean score ranged from 3.26 to 3.06, and there was no standard deviation greater than 1.00, indicating that participants' responses were spread close to the mean. Skewness and kurtosis indices were examined to assess the uni-

variate normality in the data. Skewness ranged from -.089 to -.100 and kurtosis ranged from -.846 to .565, respectively. According to Kline (2016), absolute value of skewness and kurtosis should be less than 3 and less than 7, respectively, indicating that the data in the study were regarded as normal and acceptable for further analyses.

 Table 1. Descriptive statistics, inter-construct correlations and square root of average variance extracted.

	1	2	3	4
1) School leadership	(.877)			
2) Workload Stress	.026*	(.853)		
3) Teacher Self-efficacy	014	403**	(.786)	
4) Job satisfaction	.045**	011	.184**	(.826)
Mean	3.26	2.53	3.06	3.06
SD	.552	.821	.585	.484
Skewness	422	089	543	100
Kurtosis	.278	846	.565	.474

\*\**p* < .01; \**p* < .05; Bold values in diagonal in parenthesis are the square root of AVE.

# 4.2. Mediation Analysis

Mediating analysis was conducted using Mplus Version 8.3 (Muthen & Muthen, 1998-2019), to examine indirect effects in the following relation.

Whether school leadership and teachers' workload stress mediate the relationship between self-efficacy and teacher job satisfaction

## **5. Results**

## 5.1. Evaluation of the Measurement Model

The measurement model was assessed by conducting CFA using Mplus Version 8.3 (Muthen & Muthen, 1998-2019). As shown in Table 2, all standardized factor loadings ranged from .602 to .931 and were statistically significant (p < .05) as indicated by *t*-values more than 1.96.

The measurement model had adequate validity because all factor loadings were greater than .50 (Hair et al., 2010).

Fornell and Larcker (1981) recommend that to assess the convergent validity of the measurement items, the factor loading of each item, the composite reliability of each construct, and the average variance extracted has to be examined. As reported in **Table 2**, the values of the composite reliability of each of the four constructs ranged from .786 to .877 and were higher than .70, as recommended by Nunnally and Bernstein (1994). The criterion for convergent validity was the measure of the average variance extracted (AVE) for each construct. From **Table 2**, AVE for all four constructs; school leadership, workload stress, self-efficacy, and job satisfaction are presented, for example the AVE for school leadership is 0.706. Therefore, all three criteria necessary for convergent validity have been satisfied by the measurement properties.

The discriminant validity was assessed by the Fornell-Larcker criterion (Fornell & Larcker, 1981). Table 1 shows that the correlation between each pair of constructs was less than the square root of AVEs, supporting discriminant validity. A further test of the discriminant validity was conducted using the Heterotrait-Monotrait (HTMT) discriminant validity criterion. The results in **Table 3** indicate that the correlations across the pair of constructs are less than the suggested HTMT value of .85 (Kline, 2016). Therefore, the current study achieved discriminant validity based on the results of the Fornell-Larcker and HTMT criteria.

Constructs	Standardized Factor Loading	<i>t</i> -value
School Leadership (C. R = .877; AVE = .706)		
TC3G22D I took actions to support co-operation among teachers to develop new teaching practices	.784	110.598
TC3G22E I took actions to ensure teachers take responsibility for improving their teaching skills	.931	122.844
TC3G22F I took actions to ensure that teachers feel responsible for their students learning outcomes	.798	91.725
Workload Stress (C.R. = .853; AVE = .542)		
Work stress Having too much lesson preparation (T3G52A)	.792	85.968
Work stress Having too many lessons to teach (T3G52B)	.808	101.969
Work stress Having too much marking (T3G52C)	.824	114.089
Work stress Having too much administrative work to do (e.g., filling out forms) (T3G52D)	.623	54.812
Work stress Having extra duties due to absent teachers (T3G52E)	.603	50.823
Teacher self-efficacy (C.R. = .786; AVE = .551)		
I give tasks that require students to think critically TT3G42F	.717	60.556
I have students work in small groups to come up with a joint solution to a problem or task. TT3G42G	.737	67.562
I ask students to decide on their own procedures for solving complex tasks TT3G42H	.772	68.512
Job satisfaction (C.R. = .826; AVE = .615)		
I enjoy working at this school TT3G53E	.772	61.170
I would recommend this school as a good place to work.TT3G53G	.738	44.758
All in all, I am satisfied with my job. TT3G53J	.766	76.044

**Model Fit Statistics** (Chi-square = 29201.505, df = 91, TLI = .951; CFI = .963, RMSEA = .042 [.040; .045] SRMR = .030 C. R. = Composite Reliability, AVE = Average variance extracted.

	PLEADS	WORKLOAD	SELF-EFFI	JOBSA
PLEADS				
WORKLOAD	.3583			
SELF-EFFI	.0505	.4020		
JOBSA	.0237	.4076	.2067	

Table 3. Discriminant validity using HTMT criterion.

# 5.2. Evaluation of Structural Model

A structural model test showed a good model fit (CFI = 1.000; TLI = 1.000; RMSEA = .000; SRMR = .000). The results indicated that school leadership had no significant effect on Job satisfaction ( $\beta$  = .016, p = .168). However, workload stress had a direct negative statistically significant effect on job satisfaction ( $\beta$  = -.326, p < .001), and teacher self-efficacy had a statistically significant effect on job satisfaction ( $\beta$  = .173, p < .001). The hypothesized relationships between the constructs are represented in Figure 2.



Figure 2. Structural model with standardized coefficients.

The results of the structural model (**Table 4**) found that 2 out of 3 hypotheses were supported by the data. Teachers' overall job satisfaction was the endogenous variable tested in the model. Job satisfaction was found to be predicted by workload stress and teacher self-efficacy, with  $R^2$  of .139 (13.9% of variance explained).

#### Table 4. Structural model test results.

Hypothesized Relationships	Standardized Estimates	<i>t</i> -values	Hypothesis Supported
H1: School leadership $\rightarrow$ Job satisfaction	.016	1.283	Not supported
H2: Workload stress $\rightarrow$ Job satisfaction (professional)	326	27.562***	Supported
H3: Teacher self-efficacy $\rightarrow$ Job satisfaction (environment)	.166	13.934***	Supported
Square multiple correlations (R <sup>2</sup> )			
Job satisfaction	.139		
Model fit statistics			
$\chi^2$ = .000, CFI = 1.000, TLI = 1.000, RMSEA = .000	SRMR = .000		

#### **5.3. Mediation Analysis**

The results of the mediation analysis revealed no statistically significant indirect effect of school leadership (estimate = .000, S.E = .000) and workload stress (estimate = .000, S.E = .000) on the relationship between teacher self-efficacy and job satisfaction.

# 6. Discussion

The empirical study conducted sought to identify key variables associated with teachers' overall job satisfaction. Specifically, three hypotheses were tested using a structural model: the effects of school leadership, workload stress, and teacher self-efficacy on job satisfaction. The model demonstrated an excellent fit with the data, and the findings offer substantive implications for the broader field of educational psychology and management.

Contrary to expectations, school leadership was not significantly associated with teachers' job satisfaction ( $\beta = .017$ , p = .168). This finding diverges from the literature that underscores the crucial role of effective school leadership in fostering teacher satisfaction (see Dou, Devos, & Valcke, 2017; Jentsch et al., 2023; Leithwood et al., 2019b). This deviation suggests exploring the Contingency Theory, which emphasizes the fit between leadership style and specific situational factors. According to the Cultural Dimensions theory, the UAE ranked high on power distances and collectivist dimensions, and therefore, people generally accept a clearly defined hierarchy of power (Matsumoto, 2019). It is possible that the leadership styles in the studied context did not align well with the specific needs or expectations of the teachers, hence the non-significant findings (Van de Ven & Drazin (1984). As noted by Al-Jammal (2013), because of the hierarchical nature of leadership in the UAE, school principals demonstrate an authoritative leadership style. They only serve as gatekeepers of the managerial and apagogical decisions made by the MOE and ADEC, limiting the influence of leadership on critical factors affecting organizational outcomes. This may also explain the nonsignificant influence of leadership on job satisfaction as perceived by the teachers in the UAE.

In alignment with prior studies (Jerrim & Sims, 2021; Jomuad et al., 2021), workload stress showed a significant negative association with job satisfaction ( $\beta$ = .395, p < .001). This result is critical because it validates concerns about the detrimental effects of excessive workload on teachers' well-being, burnout and attrition, and job satisfaction (see Sönmez & Betül Kolaşınlı, 2021; Fabbro et al., 2020). The significant negative association between workload stress and job satisfaction aligns with the Job Demands-Resources (JD-R) Model, which posits that high job demands (like workload stress) can deplete employee resources and lead to decreased job satisfaction. The primary sources of stress among teachers include keeping up with changing requirements from authorities, administrative work, and responsibility for students' achievement (OECD, 2019). This finding underscores the need for management strategies that balance job demands with adequate resources and support, as emphasized in the JD-R Model (Bakker & Demerouti, 2017), to retain satisfied and high-quality teachers. This suggestion aligns with the principles of the Conservation of Resources (COR) Theory, which points to the necessity of creating supportive work environments where resources are conserved and stress is managed effectively to reduce the negative influence of workload stress on job satisfaction (Hobfoll, 2011).

Consistent with existing research (Zhang et al., 2021; Ortan et al., 2021), teacher self-efficacy was found to be significantly associated with job satisfaction ( $\beta = .173$ , p < .001). This supports the notion that the belief in one's ability to execute tasks successfully can influence emotional well-being in the workplace. The significant positive relationship between teacher self-efficacy and job satisfaction supports Bandura's Social Cognitive Theory, which highlights the role of self-efficacy in achieving job satisfaction. According to the self-determination theory, people experience self-efficacy, and their behavior is self-determined when intrinsic motivation is maintained or improved (Ryan & Deci, 2000). This finding suggests that interventions such as professional development programmes to enhance teachers' skills and confidence in their abilities (self-efficacy) could be a key strategy in improving their job satisfaction (Wray et al., 2022; Perera et al., 2019), as per the tenets of this theory. Furthermore, the Expectancy Theory posits that individuals are motivated to perform well if they expect their efforts to lead to desired outcomes. Enhancing teachers' self-efficacy aligns with this theory as it increases their expectation of successful performance, thereby potentially improving their job satisfaction.

The model explained 13.9% of the variance in job satisfaction, indicating that while workload stress and self-efficacy are significant predictors, other factors are at play. The nonsignificant role of school leadership in this study invites questions about the contextual factors that might influence its impact on job satisfaction. Studies like Mavrogordato & White (2020) and Khalifa et al. (2016) suggest that leadership practices that are culturally responsive and considerate of local policies might have more nuanced effects on job satisfaction. The fact that the model ex-

plained only 13.9% of the variance in job satisfaction suggests there may be other factors influencing job satisfaction among teachers in the UAE. According to Herzberg's Two-Factor Theory (hygiene and motivator factors), the non-significant role of school leadership, a potential hygiene factor, and the significant role of workload stress and self-efficacy, potential motivators, suggests that there is a more complex interplay of factors influencing job satisfaction (Bandura, 1999).

While some findings were consistent with existing literature, the non-significant role of school leadership presents a compelling avenue for further research. It is crucial to consider these variables not just in isolation but as part of a complex system influenced by both individual and institutional factors (Jones et al., 2001).

## **Conclusion, Implication and Limitations**

The study, using TALIS 2018 data from the UAE, investigated the roles of school leadership, workload stress, and teacher self-efficacy in influencing teachers' job satisfaction. Contrary to popular belief, school leadership was not significantly associated with job satisfaction in this context. However, workload stress and teacher self-efficacy were significant predictors, implying a need for targeted interventions. The results suggest that minimizing workload stress and enhancing teacher self-efficacy are pivotal for improving job satisfaction among teachers in the UAE. Teachers' self-efficacy can be enhanced through support provided by the school for teacher formal collaboration, innovation and participation, which subsequently can improve teacher outcomes (Dou, Devos, & Valcke, 2017). This research adds a nuanced layer to our understanding of the factors influencing teachers' job satisfaction, particularly in the specific context of the UAE educational system.

The study aimed to investigate the factors influencing teachers' job satisfaction, focusing on the roles of school leadership, workload stress, and teacher self-efficacy. Drawing from TALIS 2018 data in the UAE, the structural model showed excellent fit indicators, lending credibility to the findings. However, only two out of the three initial hypotheses were supported. Specifically, workload stress and teacher self-efficacy were found to be statistically significantly related to teachers' overall job satisfaction, while school leadership was not.

These findings have significant implications for both policy and practice. Workload stress appears to be a substantial negative predictor of job satisfaction, suggesting the need for immediate interventions to manage and mitigate stress, potentially through workload reduction and effective stress management programs. Additionally, given that teacher self-efficacy positively influences job satisfaction, professional development programs focusing on building teachers' skills and confidence could be highly beneficial.

Interestingly, the lack of an association between school leadership and job satisfaction contradicts prevailing educational literature. This unexpected result may warrant further investigation, as it suggests that other factors could be at play in this specific context of the UAE educational system. Therefore, future studies should consider additional factors such as school climate, teacher autonomy and external policy changes in exploring the role of school leadership in teachers' job satisfaction in the UAE. Nevertheless, the study is pivotal in highlighting the importance of workload stress and self-efficacy in understanding teachers' job satisfaction, offering a more nuanced view than previously understood. Overall, the study recommends a multifaceted approach to enhance job satisfaction, centering on reducing workload stress and bolstering teacher self-efficacy.

This study, while insightful, has several limitations. First, it relies on TALIS 2018 data from the UAE, potentially limiting its generalizability to other educational settings. Second, the model explained only 13.9% of the variance in job satisfaction, suggesting that other unexamined factors could be influential. Thus, future research should explore possible mediating or moderating roles of factors such as type and size of school, school climate, and autonomy. Lastly, the crosssectional nature of the data restricts our understanding of the causal relationships among the variables. Future research should aim to address these limitations by incorporating longitudinal data and examining additional factors that may affect teachers' job satisfaction. In addition, qualitative data should be collected to provide a deeper understanding of the nature of leadership in the UAE and its influence on teachers' job satisfaction.

# **Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

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