

## Causal factors influencing job satisfaction for universities teachers in Hubei Province

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**Abstract:** Job satisfaction plays a pivotal role in developing higher education systems. It is crucial for enhancing teacher performance, student achievement, and educational quality. This research aims to study the causal relationships and mediating effects among these variables and propose guidelines for improving job satisfaction among university teachers in Hubei Province, China. These teachers are grappling with declining satisfaction and increasing job burnout. To address this, the present study conducted a comprehensive questionnaire survey, collecting data from 502 teachers across 36 universities, followed by structural equation modeling to analyze the influencing factors. Results indicate a significant negative impact of job burnout on job satisfaction (path coefficient =  $-0.173$ ,  $p < 0.014$ ), contrasted by positive contributions from social support ( $0.247$ ,  $p < 0.001$ ), self-efficacy ( $0.221$ ,  $p < 0.001$ ), and professional identity ( $0.167$ ,  $p < 0.001$ ). Mediation analysis further reveals that these resources collectively mitigate burnout's effect (total indirect effect =  $-0.324$ ,  $p < 0.01$ ), aligning with demand-resource perspectives. The findings, reflecting low job satisfaction (mean =  $2.39$ ) and high emotional exhaustion (mean =  $3.63$ ), highlight the need for targeted interventions to address Hubei's unique educational pressures, such as workload strain and resource disparities.

**Keywords:** Hubei province, Job burnout, Job satisfaction, Structural equation modeling (SEM), University teachers.

### 1. Introduction

Education serves as a fundamental pillar for societal development, shaping the intellectual and economic fabric of nations through the dissemination of knowledge and skills. A central component of this process is the performance and well-being of teachers, whose job satisfaction significantly influences educational quality and student success. Ismayilova and Klassen [1] demonstrate that university faculty's teaching and research self-efficacy, a key aspect of job satisfaction, positively correlates with their engagement and student outcomes. Zebon, et al. [2] further affirm that job satisfaction enhances teacher retention and institutional stability in developing regions. Moreover, they defined job satisfaction as a positive emotional state derived from work experiences, which motivates teachers to invest in innovative teaching and research, particularly in higher education, where faculty balance dual roles. However, UNESCO research indicates that key factors contributing to teacher turnover and reduced professional attractiveness include low job satisfaction, such as poor working conditions and uncompetitive salaries [3]. Similarly, low job satisfaction among university teachers in Hubei Province has been linked to reduced teaching effectiveness and increased burnout. Addressing this issue is essential to sustain a robust academic workforce, tackling the region's unique educational challenges.

Extensive research has explored the factors influencing university teachers' job satisfaction globally and within China, providing a rich foundation for this study. Existing studies have examined the role of organizational factors like salary and justice in shaping satisfaction [4, 5]. Furthermore, Ismayilova and Klassen [1] highlight the importance of self-efficacy in academic settings. Additionally, Zebon, et al. [2] recently utilized structural equation modeling in Bangladesh to identify leadership and career

growth as key predictors. Their study aligns with findings from the leadership styles study on administrative support [6]. In the study context of China, existing studies have investigated satisfaction in developed regions, often employing qualitative methods or smaller samples [7]. However, these studies predominantly focus on urban or vocational contexts, overlooking Hubei Province's unique challenges, including rapid expansion, resource disparities, and regional cultural influences. This gap underscores the need for a targeted, quantitative analysis to uncover the specific determinants of job satisfaction among Hubei's university teachers, addressing a critical deficiency in the literature.

To address this gap, this study aims to investigate the levels, determinants, and potential strategies for enhancing job satisfaction among university teachers in Hubei Province. Ultimately, it provides actionable insights to enhance teaching quality and teacher well-being. This study by a structured questionnaire designed to capture comprehensive data on job burnout, social support, self-efficacy, professional identity, and job satisfaction. Following that, structural equation modeling (SEM) was used to rigorously analyze the causal relationships and mediating effects among these variables. The questionnaire is developed based on established scales and validated through pilot testing, which will ensure reliable measurement. Moreover, SEM will provide a robust framework to test hypothesized models, including path coefficients and indirect effects, drawing on empirical evidence from a diverse sample of Hubei teachers. These efforts will yield practical recommendations to support Hubei's educational advancement. The following objectives guide the study:

- 1: To assess the levels of job burnout, social support, self-efficacy, professional identity, and job satisfaction among Hubei University teachers.
- 2: To explore the causal relationships and mediating effects among these variables.
- 3: To propose the guidelines for developing job satisfaction for universities in Hubei province.

## 2. Literature Review

### 2.1. Theoretical Basis for Job Satisfaction and Influencing Factors

Job satisfaction, alongside job burnout, social support, self-efficacy, and professional identity, is a central focus in organizational psychology, reflecting individuals' emotional and cognitive evaluations of their work experiences, which fundamentally influence performance, well-being, and organizational stability. This centrality arises from the interplay of psychological beliefs and workplace conditions, driving motivation, productivity, and retention. Bandura's Social Cognitive Theory provides a foundational perspective, positing that self-efficacy (individuals' confidence in their capabilities) drives job satisfaction by fostering effort, resilience, and engagement, particularly relevant for teachers balancing teaching and research [8]. This individual focus extends to professional identity, where belief in one's role strengthens commitment, as supported by Bandura's emphasis on self-concept. Furthermore, Herzberg's Two-Factor Theory posits that job satisfaction is driven by intrinsic motivators (e.g., achievement, recognition, and responsibility) while dissatisfaction stems from the absence of extrinsic hygiene factors (e.g., salary, job security, and working conditions) [9]. This dual-factor approach highlights the psychological mechanisms linking workplace elements to satisfaction, offering a framework for understanding teacher motivation in educational settings. Additionally, the Job Demands-Resources (JD-R) model, initially introduced by Demerouti, et al. [10] further elaborates this by categorizing job characteristics into demands (e.g., workload, emotional strain) that deplete resources, leading to burnout, and resources (e.g., social support, autonomy) that enhance satisfaction. Moreover, Bakker, et al. [11] supplemented this model with empirical evidence across multiple occupations, demonstrating that resource availability mitigates demand-related stress, a finding particularly relevant for teachers facing multifaceted roles. Recently, Demerouti, et al. [12] advanced this research by examining factors such as the cognitive processes underlying burnout, its development over time, contextual antecedents, and strategies for prevention and recovery, offering insights into how resource availability can mitigate burnout among teachers facing multifaceted roles. Together, these theories frame job satisfaction, burnout, support, efficacy, and identity among teachers as a dynamic, interconnected process shaped by intrinsic and extrinsic factors, necessitating robust measurement tools

and causal analyses. This basis supports creating a questionnaire to measure these elements and using structural equation modeling (SEM) to study their links among Hubei teachers.

### 2.2. Empirical Evidence on Job Satisfaction and Related Factors

A substantial body of empirical research has provided concrete evidence on how job satisfaction, job burnout, social support, self-efficacy, and professional identity interact, offering valuable insights into their effects on teachers across various educational contexts. Admiraal and Røberg [13] conducted a study across different career stages, revealing that reducing job demands (e.g., excessive workloads) and enhancing resources like a supportive school climate significantly decrease burnout levels and increase job satisfaction, with statistical significance ( $p < 0.01$ ) observed in their longitudinal data. Veletić and Scherer [14] utilized multilevel structural equation modeling to demonstrate that distributed leadership practices in Nordic schools positively impact teacher job satisfaction, reporting a path coefficient of 0.19 ( $p < 0.05$ ), underscoring the role of collaborative administrative support. In the Chinese context, Fan, et al. [15] found that principal empowerment enhances teacher job satisfaction through improved organizational learning and stronger professional identification, with a mediation effect of 0.22 ( $p < 0.01$ ) based on survey data from multiple institutions. Zhou and Li [7] explored vocational college teachers in China, showing that enriched job content reduces burnout, with incentive factors playing a mediating role ( $p < 0.05$ ), highlighting the importance of meaningful tasks.

Ismayilova and Klassen [1] established a strong positive correlation between university faculty's self-efficacy in teaching and research and their job satisfaction ( $r = 0.34$ ,  $p < 0.01$ ), suggesting that personal competence is a critical driver. Yang, et al. [16] investigated the role of collective efficacy and social-emotional learning competencies, finding that these factors mitigate compassion fatigue and indirectly support job satisfaction among teachers, with significant effects ( $p < 0.01$ ) in diverse school settings. Sothinathan, et al. [17] indicated that effective middle leadership fosters both job satisfaction and teacher commitment, with a notable impact ( $p < 0.05$ ) in school environments. Fütterer, et al. [18] analyzed career stage differences, noting that early-career teachers benefit more from resource availability, improving satisfaction levels. Pozas, et al. [19] demonstrated that differentiated instruction reduces teacher stress and enhances satisfaction ( $p < 0.01$ ) through adaptive teaching strategies. Kim and Maijan [20] explored satisfaction processes in higher education, emphasizing the role of institutional support in sustaining motivation. Thanh, et al. [21] provided a dataset from Vietnam, linking teacher happiness and job satisfaction, with positive correlations observed. Erdem and Koçyiğit [22] found that a positive school climate and high instructional quality mediate teacher motivation and satisfaction ( $p < 0.05$ ). Eryilmaz, et al. [23] confirmed that favorable working conditions and teacher characteristics, such as experience, significantly shape job satisfaction globally, based on large-scale evaluations. These findings collectively illustrate a complex network of influences where reducing burnout, enhancing support, boosting self-efficacy, and reinforcing professional identity collectively shape job satisfaction, varying by context and teaching environment. However, these studies often fail to critically address regional disparities, particularly neglecting Hubei Province's unique context, where rapid educational expansion and uneven resource distribution create distinct challenges, highlighting the need for this targeted research to fill this gap.

### 2.3. Contextual Application in Hubei Higher Education

Hubei Province has witnessed remarkable growth in higher education over the past two decades, fueled by national policies promoting university access. With 134 institutions (69 Regular Higher Educational Institutions and 65 higher vocational Schools), including leading universities like Wuhan University and Huazhong University of Science and Technology, Hubei stands as a vital educational hub [24, 25]. However, this expansion has introduced significant challenges. The uneven distribution of educational resources remains a critical issue, with remote-area universities lagging behind core cities like Wuhan in funding, facilities, and faculty strength. Despite efforts to enhance faculty capabilities, a shortage of high-quality teaching staff persists, particularly due to inadequate training and retention

mechanisms [26]. Additionally, rising societal demands for higher education quality have placed immense pressure on universities to meet student needs, elevate research standards, and expand social service capacity, creating a complex workload for teachers [27]. These issues collectively form a bottleneck in Hubei's higher education development, potentially undermining teacher morale and job satisfaction. While existing research has addressed teacher satisfaction in various contexts, it often overlooks Hubei's unique circumstances, including its rapid urban-centric growth and the specific pressures from resource disparities and escalating demands. This limitation underscores the need for a targeted study to explore these local dynamics, providing a foundation for understanding and addressing Hubei's higher education workforce challenges.

### 3. Methods and Materials

#### 3.1. Population and Sample

The study targets university teachers and administrators in Hubei Province, China. The population includes full-time faculty members and administrative staff engaged in teaching, research, and institutional management across these institutions. A two-stage stratified random sampling method was employed to ensure representativeness. In the first stage, 36 universities were selected from the 69 Regular Higher Educational Institutions. This selection focused on regular institutions, as their faculty face unique academic and research demands, unlike vocational schools' emphasis on practical training, aligning with this study's scope. The universities are stratified by geographic location into central cities (e.g., Wuhan) and remote areas. ensured a balanced representation, with approximately 60% from central cities and 40% from remote regions. In the second stage, a target sample of 600 participants was determined, following Krejcie and Morgan [28] sampling guidelines and Comrey and Lee [29] recommendations, comprising 300 teachers and 300 administrators.

#### 3.2. Research Instruments

Data were collected using a structured questionnaire designed to assess job satisfaction, job burnout, social support, self-efficacy, and professional identity. The instrument incorporated established scales: First, the Maslach Burnout Inventory (MBI) and its Educators Survey (MBI-ES) variant for job burnout [30]. Second, the Social Support Inventory (SSI) for social support, a 20-item scale covering emotional support, informative support, social companionship, and instrumental support [31]. Third, the Teacher Self-Efficacy Scale (TSES) for self-efficacy [32]. Fourth, the Professional Identity Scale was adapted from Wei [33] modified to include role values and belongingness. Finally, Job satisfaction was measured using a 5-item scale adapted from the Teachers' Job Satisfaction Scale, revised to focus on self-fulfilment and work conditions [34]. All items were scored on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Content validity was established through expert review by five academics, achieving an Item-Objective Congruence (IOC) index above 0.8. The questionnaire was pilot-tested with 50 teachers, with adjustments made to enhance clarity and coherence based on feedback.

### 4. Data Analyses

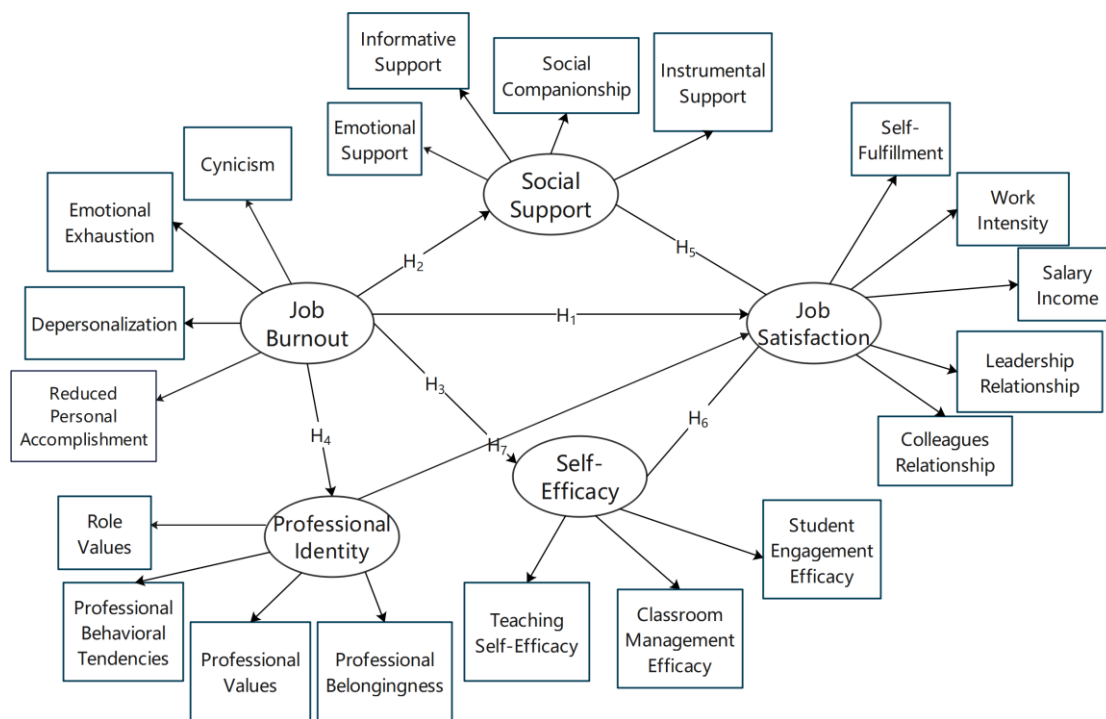
Confirmatory factor analysis (CFA) was conducted to validate the measurement model, assessing construct reliability and validity. The process involved testing the relationships between observed and latent variables, with systematic exploration of residual correlations if initial model fit indicated improvement potential, following Hu and Bentler [35]. Second, the structural model tested direct and indirect effects, with path coefficients and p-values ( $p < 0.05$ ) indicating significance. Mediation effects, including the roles of social support and self-efficacy, were assessed using the bootstrap method to ensure robustness.

Structural equation modeling (SEM) tested the structural relationships among variables. SEM was chosen for its ability to analyze causal and mediation effects. The structural model examined direct and

indirect effects, with path coefficients and p-values ( $p < 0.05$ ) indicating significance. Mediation effects of social support and self-efficacy were assessed using the bootstrap method, guided by Kline [36].

#### 4.1. Structural Framework

The study proposes a hypothesized structural framework to investigate the relationships among job burnout, social support, self-efficacy, professional identity, and job satisfaction, developed through a theoretical framework of key variable interactions and model hypotheses based on the literature review. The model hypothesizes that job burnout negatively impacts job satisfaction, while social support, self-efficacy, and professional identity exert positive influences. Social support and self-efficacy are expected to mediate the burnout-satisfaction relationship, consistent with the Job Demands-Resources (JD-R) theory. Figure 1 illustrates the Structural Framework, comprising eight hypotheses,  $H_1$ : There is a significant negative correlation between job burnout and job satisfaction for universities in Hubei province;  $H_2$ : There is a significant negative correlation between job burnout and social support for universities in Hubei province;  $H_3$ : There is a significant negative correlation between job burnout and self-efficacy for universities in Hubei province;  $H_4$ : There is a significant negative correlation between job burnout and professional identity for universities in Hubei province;  $H_5$ : There is a significant positive correlation between social support and job satisfaction for universities in Hubei province;  $H_6$ : There is a significant positive relationship between self-efficacy and job satisfaction for universities in Hubei province;  $H_7$ : There is a significant positive correlation between professional identity and job satisfaction for universities in Hubei province;  $H_8$ : Social support has a significant mediating role between job burnout and job satisfaction for universities in Hubei province.



**Figure 1.**  
Structural Framework.

## 5. Results

This study employed a mixed-methods approach, utilizing questionnaire surveys and semi-structured interviews to investigate job satisfaction and its influencing factors among university

teachers in Hubei Province. Data were collected from 502 participants across 36 universities. The following sections present the quantitative and qualitative findings.

### 5.1. The Demographic Data of the Respondents

This study initially gathered 518 questionnaire responses, with 16 samples excluded due to incomplete or inconsistent answers, resulting in 502 valid responses with a validity rate of 96.91%. Sample characteristics, detailed in Table 1. It reveals a balanced gender distribution (46.80% male, 53.20% female), a predominance of younger teachers (64.60% aged 30–40), and a highly educated cohort (73.70% with Master's or Doctoral degrees). The majority of respondents were lecturers (53.40%) with 3–5 years of teaching experience (38.00%), indicating a representative sample of Hubei's academic workforce.

**Table 1.**  
Characteristics Analysis of Demographic Samples.

Variable	Item	Frequency n=502	Percentage (%)
Gender	Male	235	46.80
	Famale	267	53.20
Age	Under 31 years	144	28.70
	31–40 years	180	35.90
	41–50 years	125	24.90
	51–60 years	53	10.50
Marital status	Single	200	39.80
	Married	302	60.20
Education level	Bachelor's degree or below	132	26.30
	Master's degree	201	40.00
	Doctoral degree or above	169	33.70
Years of teaching	2 years or less	109	21.70
	3–5 years	191	38.00
	6–10 years	123	24.50
	Over 10 years	79	15.80
Academic rank	Teaching Assistant	15	3.00
	Lecturer	268	53.40
	Associate Professor	150	29.90
	Professor	69	13.70
	Total	502	100.00

### 5.2. Key Variable Outcomes

Our analysis result is shown in Table 2. It revealed that job burnout among university teachers was at a moderate level (mean = 3.21), with high emotional exhaustion (mean = 3.63) and depersonalization (mean = 3.61), but low personal accomplishment (mean = 2.35). Self-efficacy (mean = 2.42), professional identity (mean = 2.19), and social support (mean = 2.27) were consistently low, indicating limited confidence and support. Job satisfaction was also low (mean = 2.39), reflecting dissatisfaction across self-fulfilment, work intensity, salary income, leadership, and colleague relationships. These findings underscore significant challenges in the teaching profession in Hubei.

**Table 2.**

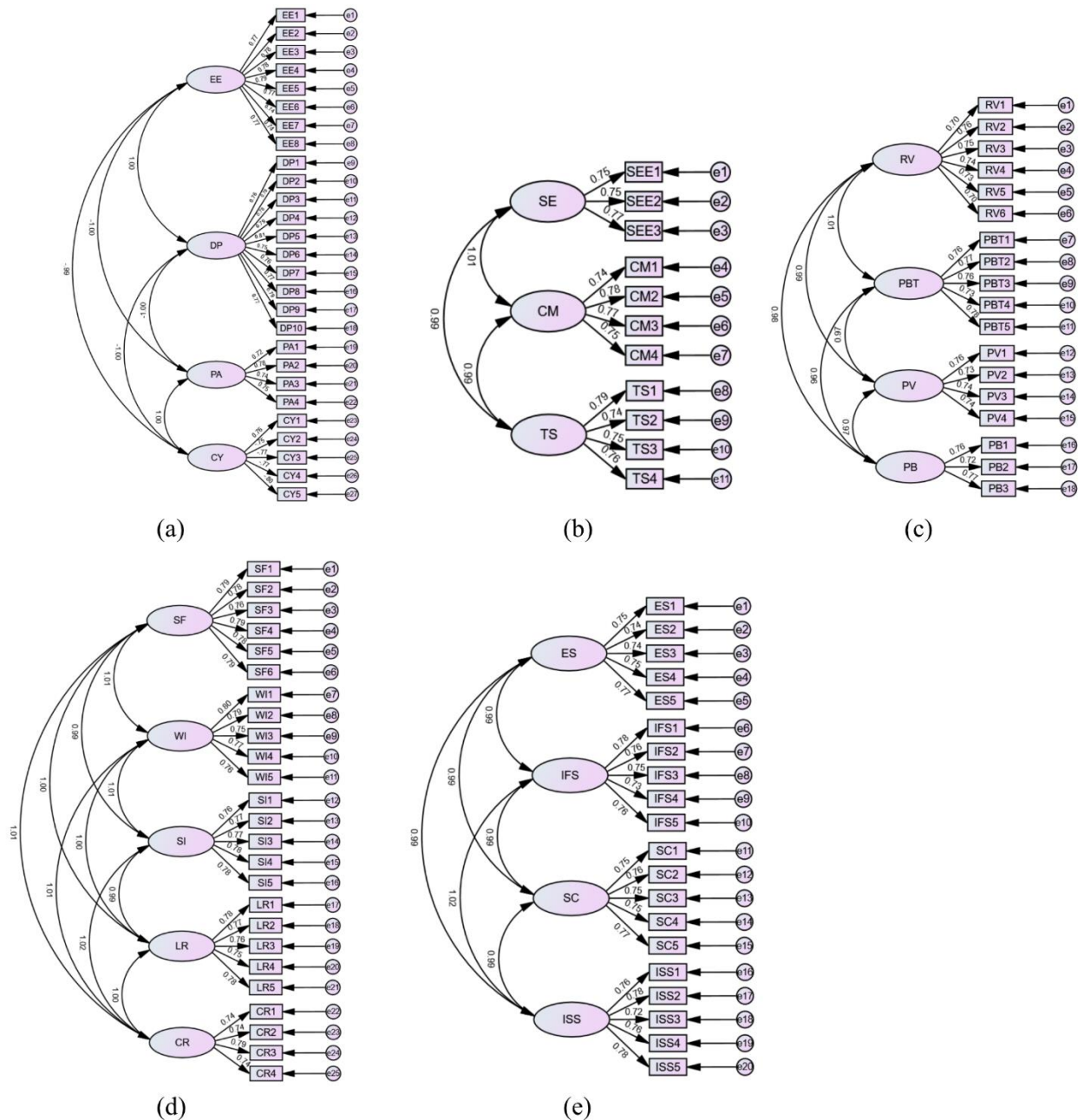
The result of key Variable outcomes.

Variable	$\bar{x}$	S.D.	Level
Emotional Exhaustion	3.63	1.03	High
Depersonalization	3.61	1.03	High
Personal Accomplishment	2.35	1.02	Low
Cynicism	3.39	0.68	Moderate
Job Burnout	3.21	0.38	Moderate
Student Engagement Efficacy	2.43	1.11	low
Classroom Management Efficacy	2.42	1.05	low
Teaching Self-Efficacy	2.41	1.05	low
Self-Efficacy	2.42	1.01	low
Role values	2.18	0.93	low
Professional behavior tendency	2.20	0.98	low
Professional Values	2.19	0.95	low
Professional belonging	2.19	0.97	low
Professional Identity	2.19	0.89	low
Emotional Support	2.27	0.98	low
Informative Support	2.25	1.01	low
Social Companionship	2.26	0.98	low
Instrumental Support	2.28	1.01	low
Social Support	2.27	0.94	low
Self-fulfillment	2.40	1.07	low
Work Intensity	2.36	1.07	low
Salary Income	2.41	1.05	low
Leadership Relationship	2.39	1.06	low
Colleagues Relationship	2.39	1.05	low
Job Satisfaction	2.39	1.01	low

### 5.3. The Result of CFA

CFA is the fundamental step in SEM, which tests whether the relationships between observed variables and their underlying latent constructs, as proposed by theory, are supported by empirical data. The CFA results demonstrated excellent model fit, with  $\chi^2/df$  ratios below 2, CFI values exceeding 0.95, GFI values above 0.90, and RMSEA values below 0.05 across constructs. Standardized factor loadings ranged from 0.70 to 0.80, with composite reliability (CR) and average variance extracted (AVE) meeting thresholds (CR > 0.7, AVE > 0.5), confirming convergent validity. Discriminant validity was established, as the square root of AVE for each construct exceeded its correlations with others. The results of the CFA are shown in Figure 1.



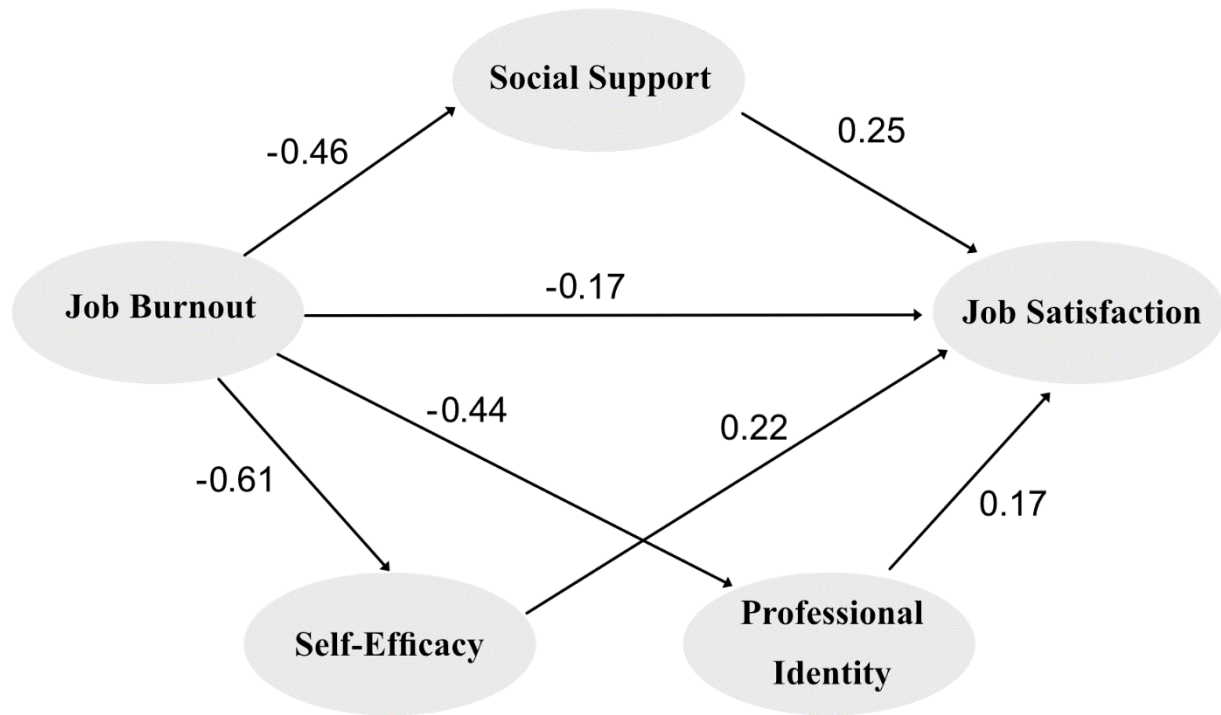


**Figure 1.** Model diagram of (a) Job Burnout, (b) Self-Efficacy, (c) Professional Identity, (d) Social Support, and (e) Job satisfaction.

#### 5.4. Structural Equation Model

SEM was employed to assess the causal relationships among job burnout, social support, self-efficacy, professional identity, and job satisfaction. The estimated model, depicted in Figure 2, illustrates the interaction network among these latent variables, revealing the intrinsic influence mechanisms.





**Figure 2.**  
Structural equation model.

The model fit is evaluated through key indices, as shown in Table 3, which presents the overall fit metrics. The  $\chi^2/\text{df}$  ratio of 1.242, Comparative Fit Index (CFI) of 0.968, Goodness of Fit Index (GFI) of 0.818, and Root Mean Square Error of Approximation (RMSEA) of 0.022 all meet or exceed acceptable thresholds, confirming a robust model fit that effectively reflects the underlying data structure.

**Table 3.**  
Structural equation model fitting index.

Index	Acceptable Value	Statistical Value	Fit Condition
$\chi^2$	-	6111.187	-
df	-	4922	-
$\chi^2/\text{df}$	<2	1.242	Excellent
CFI	>0.95	0.968	Excellent
GFI	>0.80	0.818	Good
RMSEA	<0.05	0.022	Excellent
NFI	>0.90	0.955	Good
TLI	>0.90	0.967	Excellent

Path and mediation effects are summarized in Table 4, which integrates direct, indirect, and total effects across the variables. The analysis indicates a significant negative total effect of job burnout on job satisfaction ( $-0.496$ ,  $p = 0.019$ ), with a direct effect of  $-0.173$  ( $p = 0.014$ ) and a substantial indirect effect of  $-0.324$  ( $p < 0.01$ , 95% CI  $[-0.572, -0.403]$ ), comprising  $-0.136$  via self-efficacy ( $p = 0.014$ ),  $-0.073$  via professional identity ( $p = 0.005$ ), and  $-0.115$  via social support ( $p = 0.009$ ). Job burnout also negatively impacts self-efficacy ( $-0.614$ ,  $p < 0.001$ ), professional identity ( $-0.437$ ,  $p < 0.001$ ), and social support ( $-0.464$ ,  $p < 0.001$ ). Conversely, social support (direct effect =  $0.247$ ,  $p < 0.001$ ), self-efficacy (direct effect =  $0.221$ ,  $p < 0.001$ ), and professional identity (direct effect =  $0.167$ ,  $p < 0.001$ ) exhibit

significant positive effects on job satisfaction, highlighting their roles in mitigating the negative impact of burnout.

**Table 4.**  
Path and Mediation Effects.

Path	Direct Effect ( $\beta$ )	Indirect Effect ( $\beta$ )	Total Effect ( $\beta$ )	p-value	95% CI (Lower, Upper)
Job Burnout $\rightarrow$ Job Satisfaction	-0.173	-0.324 (-0.136, -0.073, -0.115)	-0.496	0.019	(-0.572, -0.403)
		Via Self-efficacy: -0.136		0.014	(-0.221, -0.058)
		Via Professional Identity: -0.073		0.005	(-0.139, -0.028)
		Via Social Support: -0.115		0.009	(-0.177, -0.065)
Job Burnout $\rightarrow$ Self-Efficacy	-0.614	0	-0.614	<0.001	(-0.712, -0.516)
Job Burnout $\rightarrow$ Professional Identity	-0.437	0	-0.437	<0.001	(-0.514, -0.359)
Job Burnout $\rightarrow$ Social Support	-0.464	0	-0.464	<0.001	(-0.548, -0.380)
Social Support $\rightarrow$ Job Satisfaction	0.247	0	0.247	<0.001	(0.179, 0.315)
Self-Efficacy $\rightarrow$ Job Satisfaction	0.221	0	0.221	<0.001	(0.121, 0.321)
Professional Identity $\rightarrow$ Job Satisfaction	0.167	0	0.167	<0.001	(0.061, 0.273)

### 5.5. Qualitative Insights from Semi-Structured Interviews

To complement the quantitative findings, semi-structured interviews were conducted with 12 university teachers and 5 administrative staff from Hubei Province, offering deeper insights into job satisfaction and its influencing factors. The interviews, lasting 30–45 minutes each, explored participants' perceptions of burnout, social support, self-efficacy, professional identity, and satisfaction. Thematic analysis identified three key themes.

First, disparities in resources across institutions were highlighted as a challenge to satisfaction. A teacher from a less-resourced institution remarked, "Limited access to training and resources makes us feel undervalued," aligning with the low self-efficacy (mean = 2.42) and professional identity (mean = 2.19) reported in the survey. Second, social support emerged as a vital buffer against burnout. An administrator noted, "A supportive leadership environment significantly boosts morale," supporting the positive effect of social support ( $\beta = 0.281$ ) on job satisfaction. Third, excessive workloads were identified as eroding professional identity, with one teacher stating, "The pressure to publish research overshadows our teaching role," consistent with the moderate burnout level (mean = 3.21) and low satisfaction (mean = 2.39).

These qualitative insights reinforce the quantitative results, suggesting that addressing resource disparities, enhancing institutional support, and balancing workload could improve job satisfaction among Hubei University teachers.

## 6. Discussion

Based on the results, a significant negative impact of job burnout and positive contributions from social support, self-efficacy, and professional identity on job satisfaction among university teachers in Hubei Province were observed.

### 6.1. The levels of job burnout, social support, self-efficacy, professional identity, and job satisfaction among Hubei University teachers.

This study assessed the levels of key variables among Hubei University teachers, revealing a moderate level of job burnout (mean = 3.21), characterized by high emotional exhaustion (mean = 3.63), high depersonalization (mean = 3.61), and low personal accomplishment (mean = 2.35). Social support (mean = 2.27), self-efficacy (mean = 2.42), and professional identity (mean = 2.19) were consistently

low, indicating limited external resources and confidence. Job satisfaction was notably low (mean = 2.39), reflecting dissatisfaction across dimensions such as work intensity and interpersonal relationships. These levels highlight significant challenges within Hubei's higher education sector.

### 6.2. Mediation Effects and Measurement Considerations

The partial mediation of social support, self-efficacy, and professional identity in mitigating the negative impact of job burnout, as observed in our study, highlights a nuanced interplay of resources that enhances teacher well-being. This finding aligns with Bakker, et al. [11] integrated demand-resource approach, which underscores the buffering potential of multiple resources against job demands, though the modest mediation effect suggests that other factors, such as organizational culture, may further contribute to this dynamic, complementing their comprehensive model. The observed high correlations among job satisfaction sub-dimensions reflect a strong interconnectedness within the construct, likely due to the overlapping nature of items assessing interpersonal and fulfillment aspects, which strengthens the overall coherence of our measurement framework. To further refine this framework, future studies could explore tailored assessment tools to enhance the distinctiveness of these dimensions, building on the current study's robust foundation. This mediating framework sets the stage for examining the positive effects of individual resources on job satisfaction.

Our observation of a strong positive effect of social support on job satisfaction underscores its role as a vital stress buffer. This finding contrasts with Fan, et al. [15] emphasis on principal empowerment driving satisfaction through organizational learning in China, as our results highlight the equal importance of peer and institutional support. Admiraal and Røberg [13] similarly found job resources enhance satisfaction across career stages, yet our data suggest a perceived support inadequacy, particularly in Hubei's resource-challenged settings. This inadequacy indicates that strengthening social support could enhance its mediating role, linking it closely to the burnout-satisfaction relationship.

The positive influence of self-efficacy on job satisfaction observed in our study underscores the importance of teaching confidence in enhancing teacher well-being. This finding is consistent with Bandura [8] self-efficacy theory, which posits that belief in one's capabilities is crucial for resilience. However, our result of limited confidence among teachers contrasts with Ismayilova and Klassen [1] finding of higher efficacy among faculty with adequate support, suggesting that contextual factors may play a role. A potential factor is the lack of adequate training and resources, which may hinder skill development and confidence. This aligns with Eryilmaz, et al. [23] observation that poor working conditions, including resource scarcity, negatively affect teacher efficacy, a challenge likely relevant in Hubei's diverse university settings. Similarly, model of teacher competency development demonstrates that structured training programs can significantly enhance teaching confidence, a strategy that could address similar gaps in Hubei's diverse institutional landscape. This evidence further supports self-efficacy's role in the causal and mediating dynamics observed.

Our result indicating a positive association between professional identity and job satisfaction, suggests that a sense of belonging enhances teacher resilience. This finding is supported by Mgaiwa [6] research, which highlights how supportive leadership fosters professional commitment among educators. However, our observation of a weakened sense of identity contrasts with this, potentially reflecting contextual challenges. In Hubei's research-driven academic environment, the emphasis on publication over teaching recognition may undermine identity, as Mgaiwa suggests that unsupportive leadership can erode this sense. This underscores the need for strategies, such as acknowledging teaching excellence, to strengthen professional identity.

### 6.3. Contextual and Theoretical Implications

The findings indicate partial mediation of social support, self-efficacy, and professional identity in mitigating burnout. These suggest a complex interplay of resources, challenging traditional models by highlighting the limitations of these factors in a high-pressure environment. This context enriches demand-resource theories by illustrating how regional disparities and cultural norms, such as a

potential reluctance to seek assistance, may constrain the effectiveness of support systems. The interplay of these elements setting as Hubei offers a nuanced perspective, suggesting that theoretical frameworks must account for local socio-economic pressures and cultural influences to fully explain teacher satisfaction dynamics.

#### 6.4. Guidelines for Enhancing Job Satisfaction in Hubei Universities

The findings of this study underscore the need for targeted interventions to elevate job satisfaction among university teachers in Hubei Province, which can be summarized as follows:

1. To address the significant negative impact of job burnout, characterized by moderate levels and high emotional exhaustion. Institutions should implement workload management strategies, such as redistributing teaching and research responsibilities and introducing stress management programs. This could foster a more sustainable work environment, mitigating the strain observed in the data.
2. Enhancing social support requires fostering peer collaboration and strengthening administrative engagement through structured support networks that encourage open communication, responding to the perceived inadequacy noted in resource-challenged settings.
3. To boost self-efficacy, which remains low due to limited confidence. Tailored professional development programs focusing on teaching skills and resource access are essential, addressing the contextual barriers highlighted in the results.
4. Reinforcing professional identity, weakened by a research-driven culture. Necessitates recognition schemes that value teaching excellence alongside research output, aligning with the observed need for belonging.

These guidelines, grounded in the study's evidence of positive resource effects, offer actionable pathways for university administrators. Future efforts should monitor these interventions' long-term impact, ensuring they adapt to Hubei's evolving educational landscape and enhance teacher well-being and retention effectively.

## 7. Conclusion

This study aimed to explore the causal factors influencing job satisfaction among university teachers in Hubei Province, focusing on job burnout, social support, self-efficacy, and professional identity. Employing a mixed-methods approach, we collected data from 502 teachers across 36 universities through questionnaires and semi-structured interviews, analyzing the relationships using structural equation modeling. The results revealed a significant negative impact of job burnout on job satisfaction, contrasted by positive contributions from social support, self-efficacy, and professional identity, with the latter three partially mediating burnout's effects. These findings highlight a complex interplay of resources shaping teacher well-being in this context.

There also exist several limitations in this study. The cross-sectional design restricts causal inferences, offering only a snapshot of teacher experiences in June 2024. Additionally, the high correlations among job satisfaction sub-dimensions suggest potential measurement overlap, pointing to the need for refined assessment tools to enhance construct distinctiveness. Future research could adopt longitudinal studies to monitor changes over time, investigate additional factors such as organizational culture, and refine measurement instruments, thereby deepening our understanding of teacher job satisfaction.

In conclusion, our study contributes to improving teacher well-being and educational quality in Hubei. By identifying workload, support, and development as key areas, it offers actionable insights for university administrators and policymakers to foster a supportive environment. The findings also provide a foundation for future investigations, potentially influencing broader educational strategies in China and beyond, ensuring sustained professional satisfaction and student outcomes.

## Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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