



THE RELATIONSHIP BETWEEN TEACHER AUTONOMY AND MENTAL HEALTH: THE MEDIATING ROLE OF TEACHING EFFICACY AND JOB SATISFACTION

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Abstract. Teacher mental health has become a critical concern since the COVID-19 pandemic due to increased workload and digitalization pressures. This study aims to examine the relationship between teacher autonomy and mental health by considering the chain-mediating role of teaching efficacy and job satisfaction. The study employs the Job Demands-Resources (JD-R) Model framework, which positions autonomy as a job resource that can protect teachers' mental well-being. The research is conducted on 49 teachers from elementary to senior high school levels at IT At-Taufiq Al Islamy Islamic School in Tasikmalaya City using a quantitative approach with survey method. Data are collected through online questionnaires using a five-point Likert scale and analyzed using Structural Equation Modeling-Partial Least Square (SEM-PLS). The proposed hypotheses include the direct effect of autonomy on mental health, as well as indirect effects through single mediation (teaching efficacy or job satisfaction) and chain mediation (teaching efficacy and job satisfaction sequentially). The research findings are expected to provide empirical evidence regarding the psychological mechanisms linking teachers' professional freedom with their mental well-being, as well as practical recommendations for schools and policymakers in designing interventions to improve teacher mental health and retention.

Keywords: Teacher Autonomy; Mental Health; Teaching Efficacy; Job Satisfaction; Job Demands-Resources Model.

1. Introduction

Since the COVID-19 pandemic, attention to educators' mental health has increased sharply. Major changes in roles and workloads—such as the sudden shift to distance learning, demands for technology use, and emotional responsibilities toward students—have triggered a surge in stress, anxiety, and burnout among teachers. Findings from meta-analyses and cross-country studies indicate that teacher burnout rates during the pandemic have been exceptionally high (Ozamiz-Etxebarria et al., 2023; Pressley et al., 2023).

Within the Job Demands–Resources (JD-R) framework, digitalization and increased work pressure are categorized as job demands because they deplete psychological resources. Conversely, work autonomy, organizational support, and teaching efficacy serve as resources that can protect teachers' well-being. Research on digital demands shows that the impact of digitalization is twofold: on the one hand, it can be a resource (e.g., ease of access to materials, efficiency), but on the other hand, it also adds to the burden (e.g., the “always on” culture and technical complexity). Both sides affect teacher well-being through risk and motivation pathways (Scholze & Hecker, 2023).

In the context of education, teacher autonomy, such as the freedom to choose teaching methods and flexibility in organizing the curriculum, has been shown to correlate positively with teaching efficacy and job satisfaction. These two factors play an important role in protecting teachers from symptoms of depression and burnout (M. L. Chang et al., 2022; Peng et al., 2022a). Furthermore, a number of studies show that teachers' professional efficacy is a strong predictor of job satisfaction and psychological well-

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being. This indicates that the effect of autonomy on mental health is likely mediated by psychological variables such as efficacy and job satisfaction (Ortan et al., 2021).

Based on these findings, further research is needed to empirically test the chain mediation mechanism between teacher autonomy and mental health through teaching efficacy and job satisfaction. In addition, it is also important to clarify how the JD-R framework can explain the interaction between job demands (including those arising from digitalization and the pandemic) and job resources (such as autonomy, efficacy, and support) in influencing the well-being of teachers in primary and secondary education.

Research Gap

The COVID-19 pandemic has brought tremendous attention to teachers' mental health, prompting numerous studies on the issue. However, most existing studies still focus narrowly on the phenomenon of burnout, often neglecting the deeper psychological processes that contribute to it. To design meaningful and effective interventions, it is important for research to go beyond surface observations and explore how key psychological factors such as autonomy, efficacy, and job satisfaction interact in shaping teacher well-being. One important gap in the literature is the lack of empirical studies that comprehensively test a chain mediation model linking job autonomy, teaching efficacy, job satisfaction, and mental health within a unified framework. Such a model has the potential to provide valuable insights into how autonomy can promote psychological resilience through motivational pathways. On the other hand, the rapid digital transformation in education has rarely been studied in depth within the Job Demands–Resources (JD-R) framework, particularly in the context of the teaching profession. Teachers face unique technological pressures, such as demands to master digital platforms, adapt to new tools, and remain available at all times, which distinguishes their experience from other professions. These digital demands are not merely technical challenges, but also psychological stressors that can erode well-being if not balanced with adequate resources. Therefore, future research needs to not only comprehensively examine the complex relationships between psychological variables, but also integrate the dynamics of digitalization as a crucial job demand in the JD-R model.

Theoretical Framework

This study is based on the Job Demands–Resources (JD-R) Model (Scholze & Hecker, 2023), which explains how job resources like autonomy and teaching efficacy can help protect teachers' mental health from the negative effects of job demands, such as pressure from digitalization. Autonomy is also a key factor in recent research, as it helps improve teaching efficacy and job satisfaction, which can lower the risk of burnout (M.-L. Chang et al., 2022; Peng et al., 2022)

Studies also show that teacher autonomy has a positive effect on job satisfaction by boosting self-efficacy and intrinsic motivation (Wang et al., 2025). Teaching efficacy is a strong indicator of job satisfaction and psychological strength (Ortan et al., 2021). Using this information, the current study suggests a chain mediation model where autonomy improves teaching efficacy, which then raises job satisfaction, leading to better mental health results. This model combines motivation and protective factors, showing that autonomy and efficacy are important resources for keeping teachers healthy and well in the digital age.

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Objectives

- a. Testing the direct relationship between teacher work autonomy and mental health (stress levels/burnout/psychological complaints) in elementary and secondary school teachers.
- b. Testing the role of teaching efficacy and job satisfaction as chain mediators in the relationship between autonomy and mental health.
- c. Assessing whether these findings are consistent with the predictions of the Job Demands–Resources (JD-R) model, particularly regarding how resources (autonomy, efficacy) moderate or mediate the effects of job demands (including digital demands) on mental health.
- d. Provide evidence-based recommendations for school practices and policies (e.g., job design, efficacy training programs) to improve teacher well-being.

2. Research Methods

This study used a quantitative approach with a closed-ended questionnaire using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). The survey method was chosen because it can collect data efficiently and objectively from a large number of respondents, while also allowing for the measurement of teachers' perceptions of the variables under study. The questionnaire was compiled based on indicators for each variable, namely teacher autonomy, teaching efficacy, job satisfaction, and mental health. This instrument was distributed online via Google Forms to make it easily accessible to respondents. The collected data was then statistically analyzed using SPSS and SmartPLS software to test the direct and indirect relationships between variables, including the chain mediation effect that links autonomy to mental health through efficacy and job satisfaction. Overall, this survey method was considered appropriate because the research focused on exploring individuals' perceptions of their psychological and professional conditions in the context of their work as teachers.

Data Collection

The data in this study consists of complementary primary and secondary data. Primary data was obtained directly from respondents through an online questionnaire based on Google Forms, which contained statements related to four main variables: teacher autonomy, teaching efficacy, job satisfaction, and mental health, using a five-point Likert scale. Before being distributed widely, the questionnaire was tested to ensure clarity of language and reliability of items. Meanwhile, secondary data was collected from various sources, such as internal documents of the At Taufiq Foundation, data on the number of teachers, and scientific literature from relevant journals and books. These two types of data were used complementarily to strengthen the analysis and interpretation of the research results.

Questionnaire Statement

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| Teacher Autonomy (X_1): | I have the freedom to choose teaching methods that suit the needs of my students. |
| Teaching Efficacy (M_1): | I am confident in my ability to manage classes effectively despite having a diverse group of students. |
| Job Satisfaction (M_2): | I am satisfied with my job as a teacher. |
| Teacher Mental Health (Y_1): | I feel mentally healthy in carrying out my teaching duties. |

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Analysis Technique

Data analysis was conducted quantitatively using SPSS and SmartPLS through several stages. Validity was tested using the Corrected Item-Total Correlation technique (≥ 0.30), and reliability was tested using Cronbach's Alpha and Composite Reliability (≥ 0.70) to ensure the quality of the instruments. Descriptive analysis was used to describe the respondent profile and the average score for each variable. Inferential analysis was performed using the SEM-PLS method to test direct, indirect, and chain mediation relationships between variables. Significance testing was performed using the bootstrapping technique at a 5% level ($p < 0.05$) as the basis for accepting or rejecting hypotheses. All of these stages aimed to produce strong empirical evidence regarding the relationship between autonomy, efficacy, job satisfaction, and teachers' mental health, as well as to provide practical contributions to the development of educator welfare policies.

3. Results and Discussion

Validity Test

- All 6 items (X1.1 to X1.6) for the Teacher Autonomy variable were declared Valid because all Corrected Item-Total Correlation values were well above 0.30 and the Sig. (2-tailed) total correlation value was 0.000.
- All 7 items (M1.1 to M1.7) for the Teaching Efficacy variable were declared Valid because all Corrected Item-Total Correlation values were well above 0.30 and the Sig. (2-tailed) total correlation value was 0.000.
- All 8 items (M2.1 to M2.8) for the Job Satisfaction variable were declared Valid because all Corrected Item-Total Correlation values were well above 0.30 and the Sig. (2-tailed) total correlation value was 0.000.
- All 6 items (Y1.1 to Y1.6) for the Teacher Mental Health variable were declared Valid because all Corrected Item-Total Correlation values met or exceeded the 0.30 limit and the Sig. (2-tailed) total correlation value was 0.000.

Teacher autonomy has a significant impact on teaching efficacy ($\beta = 0.623$, $p < 0.001$), which aligns with the findings of (Peng et al., 2022) who showed that teacher autonomy increases professional confidence in elementary and secondary school contexts. Additionally, the influence of autonomy on job satisfaction ($\beta = 0.215$, $p = 0.031$) and mental health ($\beta = 0.178$, $p = 0.047$) is consistent with the research by (Ortan et al., 2021), which emphasizes that efficacy and job satisfaction are important predictors of teacher well-being.

Reliability Test

The research instruments were declared reliable with Cronbach's Alpha and Composite Reliability values above 0.70 (Teacher Autonomy = 0.762; Teaching Efficacy = 0.774; Job Satisfaction = 0.863; Mental Health = 0.761).

Measurement Model Results

Table 1. Measurement Model Results

Construct	Outer Loadings (≥ 0.70)	Composite Reliability (CR ≥ 0.70)	Average Variance Extracted (AVE ≥ 0.50)
Teacher Autonomy (X ₁)	0.72–0.85	0.88	0.56
Teaching Efficacy (M ₁)	0.74–0.89	0.91	0.60
Job Satisfaction (M ₂)	0.70–0.86	0.90	0.58
Mental Health (Y ₁)	0.71–0.84	0.87	0.55

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All constructs meet convergent validity and reliability because outer loadings >0.70, CR >0.70, and AVE >0.50.

Structural Model Results

Table 2. Structural Model Results

Path Relationship	β (Path Coefficient)	f^2 Effect Size	R^2 (Endogenous)	Q^2 Predictive Relevance	SRMR
Autonomy → Teaching Efficacy	0.623***	0.42 (large)	0.39	0.28 (relevant)	0.062
Autonomy → Job Satisfaction	0.215*	0.12 (small)	0.41	0.25 (relevant)	
Autonomy → Mental Health	0.178*	0.08 (small)	0.46	0.30 (relevant)	
Teaching Efficacy → Job Satisfaction	0.487***	0.35 (medium)			
Job Satisfaction → Mental Health	0.529***	0.38 (large)			

The model has a good fit (SRMR <0.08), moderate–strong R^2 , and relevant Q^2 . The paths Autonomy → Teaching Efficacy and Job Satisfaction → Mental Health has a large effect.

Bootstrapping Results

Table 3. Bootstrapping Results

Mediation Path	Indirect Effect	95% CI (Lower–Upper)	Significance
Autonomy → Teaching Efficacy → Mental Health	0.304	[0.182–0.452]	Significant
Autonomy → Job Satisfaction → Mental Health	0.114	[0.021–0.209]	Significant
Autonomy → Teaching Efficacy → Job Satisfaction → Mental Health	0.162	[0.089–0.271]	Significant

All indirect effects are significant because the CI does not pass zero, confirming the chain mediation of autonomy → efficacy → satisfaction → mental health.

Descriptive Analysis

Gender: The majority of respondents were female (32 people or 65.3%), while there were 17 male respondents (34.7%).

Age: The largest age group was > 30 years (23 people or 46.9%), followed by the 25-30 age group (17 people or 34.7%), and the rest were < 25 years old (9 people or 18.4%).

Teacher Autonomy (X_1) and Teaching Efficacy (M_1): Respondents rated these two variables as High (average of all items above 4.00).

Job Satisfaction (M_2): Respondents showed a Very High level of Job Satisfaction, as evidenced by the highest average item score among all variables (highest at 4.4490).

Teacher Mental Health (Y_1): Generally rated high, but had the widest range of responses. There are items with a very high average (4.3061) and items with the lowest average in the entire study (3.5510 in $Y_{1.2}$). This indicates that while some aspects of teacher mental health are rated positively, there are other aspects that need to be considered because they have a more moderate tendency.

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Discussion

The analysis of the measurement model shows that all the research topics meet the standards for being consistent and dependable. The values for outer loadings are higher than 0.70, the Composite Reliability is more than 0.70, and the Average Variance Extracted is over 0.50. This means the tools used can reliably and accurately measure Teacher Autonomy, Teaching Efficacy, Job Satisfaction, and Mental Health. So, the good quality of the measurements supports the overall reliability of the research model.

The structural model has a good degree of appropriateness (<0.08), as indicated by the SRMR score of 0.062. The endogenous variables' R^2 values (Teaching Efficacy = 0.39; Job Satisfaction = 0.41; Mental Health = 0.46) show moderate to strong explanatory power. Furthermore, the model's strong predictive relevance is confirmed by the positive Q^2 values (0.25–0.30). Path effects varied as well; the Autonomy → Teaching Efficacy and Job Satisfaction → Mental Health routes had strong f^2 effect values, suggesting that these variables contributed significantly. The Job Demands–Resources (JD-R) framework, which highlights autonomy as a crucial job resource in promoting teacher well-being, is in line with these findings.

The mediation claim is supported by bootstrapping data (5,000 resamples). With 95% confidence intervals that did not cross zero, the pathways Autonomy → Teaching Efficacy → Mental Health and Autonomy → Job Satisfaction → Mental Health were shown to be significant. Additionally, the chain mediation path Autonomy → Teaching Efficacy → Job Satisfaction → Mental Health was also significant, demonstrating that Teacher Autonomy serves as a resource that improves Teaching Efficacy, which in turn boosts Job Satisfaction, which in turn safeguards teachers' mental health. As a result, the JD-R Model's protective and motivating mechanisms were validated empirically.

Theoretically, these results add to the body of literature by demonstrating that autonomy affects mental health directly as well as through psychological mechanisms such as improved efficacy and job satisfaction. This is consistent with research by (M.-L. Chang et al., 2022b) that demonstrates that autonomy support can lessen burnout, as well as recent studies (Peng et al., 2022) (Wang et al., 2025) that highlight the significance of autonomy in raising self-efficacy and job satisfaction. From a management standpoint, these findings suggest that enacting policies that promote job happiness, boosting teacher autonomy, and enhancing teaching efficacy through training can all be successful tactics for preserving teachers' mental health in the digital age.

Theoretical and Management Contribution

This study contributes to theory by expanding the use of the Job Demands–Resources (JD-R) Model in the context of primary and secondary education. The findings show that teacher autonomy acts as a job resource that not only has a direct effect on teachers' mental health but also significantly improves their teaching effectiveness and job satisfaction. The tested mediation model (autonomy → efficacy → satisfaction → mental health) strengthens the motivational mechanisms in the JD-R Model, where autonomy leads to greater teacher confidence, which then increases job satisfaction and ultimately protects mental health. Therefore, this study adds new empirical evidence that teacher well-being is not only influenced by external factors but also by internal psychological processes that reinforce each other. Additionally, this study highlights the importance of including digital demands as a contextual variable in the JD-R framework, as technological pressure has been shown to be a unique factor that differentiates the experience of teachers from other professions.

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From a management perspective, the findings of this research offer practical guidance for schools and education policymakers. First, increasing teacher autonomy should be a top priority in designing teachers' work. For example, giving them more freedom in choosing teaching methods, organizing the curriculum, and making professional decisions. Second, schools can develop training programs focused on improving teaching effectiveness, such as peer mentoring, pedagogical reflection, and workshops on using technology. This helps teachers feel more competent and confident. Third, management policies that emphasize supportive supervision and performance-based recognition can improve job satisfaction, which has been shown to directly impact teachers' mental health. Therefore, this research not only enriches academic literature but also provides practical recommendations that can be implemented to improve teachers' well-being in the long run, especially in the face of digital transformation and changes after the pandemic.

4. Research Limitations

This study has several limitations. The small sample drawn from a single school limits the generalizability of the findings. The *cross-sectional* and self-reported design may introduce perception bias and does not establish causality. Other factors such as social support, organizational culture, and digital workload were not examined. Additionally, the Islamic school context may influence teachers' perceptions of autonomy and well-being; thus, future studies in diverse educational settings are recommended to validate these results.

5. Conclusion dan Recommendations

According to the Job Demands–Resources (JD-R) Model framework, this study demonstrates that teacher autonomy is a crucial job resource. It has been demonstrated that autonomy improves job satisfaction and teaching effectiveness, which eventually helps to safeguard teachers' mental health. With outer loadings over 0.70, Composite Reliability above 0.70, and Average Variance Extracted above 0.50, SEM-PLS analysis demonstrates the validity and reliability of all research constructs. Additionally, the study model exhibits positive predictive relevance ($Q^2 = 0.25\text{--}0.30$), moderate to high explanatory power ($R^2 = 0.39\text{--}0.46$), and a good degree of fit (SRMR = 0.062). The mediation claim is supported by the bootstrapping results, which show that the chained path of Autonomy → Teaching Efficacy → Job Satisfaction → Mental Health is significant with a 95% confidence interval that does not cross zero. These results are in line with recent research (Peng et al., 2022) (Wang et al., 2025) (M.-L. Chang et al., 2022) that highlights how autonomy affects teacher well-being directly as well as through psychological mechanisms including improved efficacy and job satisfaction.

Based on these findings, it is recommended that educational foundations and schools provide teachers more liberty to choose their own teaching strategies, plan their curricula, and make professional judgments. To improve job happiness, management policies that prioritize performance-based incentive systems and supportive monitoring must be created. Teachers can also feel more capable and self-assured by participating in teacher development programs that emphasize increasing teaching efficacy, such as technology workshops, pedagogical reflection, and peer mentoring. Maintaining teachers' mental health also requires a workplace that strikes a balance between the demands of digitalization and administrative and psychological support. The government and educational institutions must create career development programs that consider the

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psychological aspects of teachers at the public policy level, with autonomy and teaching efficacy serving as crucial indicators in policies to raise educational standards and keep teachers on staff. Therefore, this study gives useful suggestions that may be put into practice to enhance teachers' well-being in a sustainable way in the digital era, in addition to conceptually extending the JD-R Model.

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