
Influence of Teacher Workload and Professional Identity on Job Satisfaction Among Science Educators

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Abstract — Poor job satisfaction is a global concern. The combined influence of teacher workload and professional identity on job satisfaction was determined. Through diagnostic research design, the data from 207 respondents, selected through stratified random sampling, were analyzed using multiple regression analysis. It was found that teacher workload and professional identity significantly influence job satisfaction, with professional identity exerting a stronger effect, partially supporting the Demands–Resources (JD-R) Theory. Future research may explore additional variables and qualitative approaches, while interventions should strengthen teachers’ professional identity and improve workload management to support SDG 4.

Keywords: *Teacher workload, professional identity, influence on job satisfaction, science educators*

I. INTRODUCTION

Low job satisfaction is a global concern, affecting educator retention and the quality of education (Toropova et al., 2021). The global decline in teacher job satisfaction poses a serious threat to educational quality and workforce stability (Skaalvik & Skaalvik, 2020).

This issue also documented in international studies conducted in Slovakia and neighboring countries, where low job satisfaction was linked to declines in overall life satisfaction and reduced

professional motivation (Kasáčová, 2022). In Chinese schools, teachers' job satisfaction was found to be closely tied to their professional commitment, with lower satisfaction reflected in weaker engagement and reduced dedication to teaching responsibilities (Shi, Yu, & Zheng, 2020). In addition, teachers in South Africa were found to have generally low levels of job satisfaction, which was reflected in weaker engagement and reduced professional commitment (Shibiti, 2020).

A study by Llego (2020) revealed that public school teachers in the Philippines exhibited low job satisfaction, a condition associated with weaker performance outcomes and concerns about professional fulfillment. This finding is consistent with local research, as teachers at Central Mindanao University in Bukidnon were also found to exhibit relatively low levels of job satisfaction, reflecting broader concerns about professional fulfillment among educators in the region (Abellana, 2025).

Low job satisfaction among Filipino teachers has contributed to workforce migration abroad, weakening the domestic education sector and undermining the country's long-term competitiveness (Fabella, So, Ybut, & Joven, 2022). Persistent dissatisfaction also reduces teacher retention and instructional quality, which negatively affects student outcomes and threatens the productivity of the future labor force (Bona, 2020). Drawing from the EDCOM II report, Angelo (2025) stresses that low job satisfaction among educators requires urgent reforms to prevent further deterioration in education outcomes. Despite the importance of teacher well-being, limited research has examined how internal factors, such as professional identity and workload, influence public secondary science teachers' job satisfaction, particularly in the Philippine context. This study addressed that gap by examining how teacher workload and professional identity predicted public secondary science teachers' job satisfaction.

The study holds significance in its contribution to achieving SDG 4 by advancing inclusive and equitable quality education, recognizing that empowered and professionally fulfilled teachers were indispensable to this global commitment. In the Philippine context, the findings can support the goals of the Department of Education by offering empirical evidence to guide policies and interventions that addressed workload concerns and strengthened professional identity. Such measures enhanced teacher motivation, retention, and instructional effectiveness, thereby contributing to the overall improvement of the education system. At the institutional level, the results are valuable to Holy Cross of Davao College in strengthening the importance of fostering

teacher well-being within a mission-driven academic community aligned with its commitment to excellence, service, and holistic formation, ultimately contributing to improved student learning outcomes and long-term educational sustainability.

This study determined the significance of teacher workload and teachers' professional identity as predictors of job satisfaction among public school science educators. Specifically, it aimed to determine the levels of teacher workload in terms of duties and obligations, energy, and time; teachers' professional identity in terms of professional values, role values, professional belonging, and professional behavior tendency; and job satisfaction in terms of work environment, leadership and support, professional growth and recognition, compensation, and job security among science educators in various school settings; the significant relationship between teacher workload, teachers' professional identity, and the job satisfaction among science educators, and explore the significant influence of teacher workload and teachers' professional identity on the job satisfaction among science educators. This study is anchored in the Job Demands–Resources (JD-R) Model, proposed in 2017 by the psychologists Arnold B. Bakker and Evangelia Demerouti, which posits that every occupation is defined by its own unique set of job demands and job resources.

II. METHODOLOGY

The study employed a diagnostic research design, which focuses on identifying the causes of a particular phenomenon, examining relationships among variables, and providing insights that can guide solutions or interventions. It is suitable for this study as it moves beyond simply describing what is happening to uncovering why it is happening, making it a strong foundation for evidence-based decision-making in fields such as education and organizational studies (Almeida & Monteiro, 2022). A diagnostic approach was utilized to investigate how teacher workload and teachers' professional identity function as underlying factors that shape the fulfillment of job satisfaction, providing evidence-based insights for educational practice (Bauer et al., 2020; Fan et al., 2021; Galeos et al., 2021).

The study was conducted in public secondary schools within the MAKIMA Districts (Maasim, Kiamba, Maitum) Sarangani Division, SOCCSKSARGEN Region. These districts

provide a diverse educational environment, serving coastal and upland communities and accommodating learners from varied cultural backgrounds, including Indigenous Peoples such as the Blaan and T'boli. Science teachers in Junior and Senior High Schools face challenges of large class sizes, limited resources, and culturally responsive teaching demands, yet they play a vital role in delivering subject knowledge while embodying professional identity through their values, beliefs, and sense of purpose. The MAKIMA Districts thus offer a meaningful setting for examining how workload demands and professional identity influence teacher job satisfaction.

The study involved 207 secondary science teachers from public schools in the MAKIMA Districts (Maasim, Kiamba, Maitum), Division of Sarangani, SOCCSKSARGEN Region. To ensure fair representation, stratified random sampling was applied. Stratified random sampling is a probability sampling technique where a population is divided into distinct subgroups (strata) based on shared characteristics, and random samples are drawn from each stratum. It is applied when researchers want to ensure representation of all key subgroups in a population, and its main advantage is producing more accurate, representative, and reliable results compared to simple random sampling. Stratified random sampling is a widely used sampling technique for approximate query processing (Nguyen, T. D., Shih, M.-H., Srivastava, D., Tirthapura, S., & Xu, B., 2021). The teacher population was divided into strata based on school level (Junior High School and Senior High School), and a proportional number of respondents was randomly selected from each group. Only regular teachers with at least one year of service were included to guarantee that responses reflected meaningful professional experience. The sample size was calculated using the Raosoft calculator with a 5% margin of error and 95% confidence level (Sullivan, 2020), ensuring representativeness of the estimated 450-teacher population.

In this research, a survey technique was used as a gathering data technique. The survey technique is applied in research when a researcher needs to collect standardized information from a large group of people about their opinions, behaviors, or characteristics. It allows researchers to gather data through structured questions and generalize the results from a sample to a larger population (Goodfellow, 2023). One key advantage of the survey technique is that it is efficient and cost-effective, allowing researchers to reach many participants quickly, especially through online methods (Goodfellow, 2023). It also enables the collection of large amounts of structured

data to measure knowledge, attitudes, and behaviors, making it useful for analysis and decision-making (Chang, 2023; Sheikh, 2024).

Three adopted and modified questionnaires were used in this study. The first instrument, the teacher workload questionnaire was adapted from the study of Jan Nikkie C. Maquidato and Rammel T. Bayani (2024). It consists of 15 items designed to assess the teachers' perceived workload in terms of duties and obligations, time, and energy. A four-point Likert scale was used to describe the degree to which respondents perceived duties and obligation, time, and energy in their work environment. The adapted instruments were pilot-tested for reliability, achieving a Cronbach's alpha of 0.822. The second instrument was the teachers' professional identity questionnaire and was adapted from by Sun, Zhu, Lin, Sun, Wu, and Xiao (2022). It is composed of 18 items designed to assess teacher's professional identity in terms of professional values, professional belonging, role values, and professional behavior tendency as key dimensions of construct. This questionnaire also utilized a four-point Likert scale to determine the extent of teacher's identity reported by teachers. Pilot testing revealed a Cronbach's alpha of 0.918. Lastly, the third instrument was the teacher job satisfaction questionnaire, and was adapted from Lester (1987). It composed of 39 items intended to capture teachers' satisfaction in terms of work environment, leadership and support, professional growth and recognition, and compensation and job security. The instrument utilized a four-point Likert scale to determine the extent of teachers' job satisfaction as reported by the respondents. Pilot testing of the questionnaire yielded a Cronbach's alpha coefficient of 0.945, indicating high internal consistency.

In this study, the data analysis technique used were descriptive, correlation, and regression analyses. Descriptive data analysis summarizes raw data into structured insights and visualizations, focusing on "what is" rather than "why it is (GeeksforGeeks, 2025). In this study, the mean and standard deviation statistical tools were used. Moreover, the correlation analysis examines the strength and direction of the relationship between two continuous variables (Appinio, 2023). The Pearson Product-moment correlation statistical tool was used. Lastly, regression analysis predicts the relationship between a dependent variable and one or more independent variables (Sarang, 2023). The multiple linear regression statistical tool was employed. The predictive variables were described using four range scales with corresponding descriptive levels and interpretations. Pearson Product-Moment Correlation was applied to examine the relationships among the

variables, while multiple regression analysis was conducted to determine the predictive influence of teacher workload and professional identity on job satisfaction.

The matrix presenting the scale, descriptive level, and corresponding interpretation for each study variable is provided, specifically used to describe teacher workload, teachers' professional identity and job satisfaction.

Scale	Descriptive Level	Interpretation for Teacher Workload	Interpretation for Teachers' Professional Identity	Interpretation for Job Satisfaction
3.26-4.00	Very High	Manageable	Very Strong	Much satisfied
2.50-3.25	High	Moderately manageable	Strong	More satisfied
1.75-2.49	Low	Less manageable	Moderate	Less Satisfied
1.00-1.74	Very Low	Not Manageable	Weak	Not satisfied

Standard Deviation Value Ranges and Interpretation

<i>Range</i>	<i>Description</i>	<i>Interpretation</i>
SD $\leq$ 0.50	High Consistent Responses	Strong and uniform perception
SD = 0.51 – 1.00	Moderate Consistent Responses	Acceptable consistency
SD = 1.01 – 1.50	Low Consistent Responses	Differing views or experiences
SD > 1.50	Very Low Consistent Responses	High variability and lack of consensus

In this study, the significance of the correlation is tested at 0.05 confidence level. The following is the standard measure for the interpretation scale of r -value, the following scheme is used:

<i>Computed r</i>	<i>Descriptive Interpretation</i>
+/-1.00	Perfect Correlation
Between +/- 0.75 - +/- 0.99	High Correlation
Between +/- 0.51 - +/- 0.74	Moderately High Correlation
Between +/- 0.31 - +/- 0.50	Moderately Low Correlation
Between +/- 0.01 - +/- 0.30	Low Correlation
0.00	No Correlation

This study adhered strictly to ethical standards to safeguard the participation of science public school teachers and to ensure the validity and trustworthiness of the findings. It followed the protocols of the Holy Cross of Davao College – Society for Moral Integrity and Legal Ethics (SMILE) and complied with the Data Privacy Act of 2012 to ensure the responsible and ethical handling of personal information (Cheng, 2021). Ethical clearance was obtained from the institution prior to data collection. Coordination with school administrators was undertaken to avoid disruption of teaching responsibilities. Potential risks included possible feelings of discomfort or anxiety related to the evaluation process during self-assessment. To address these concerns, respondents were explicitly informed that their involvement was voluntary, their responses would remain confidential, and all data would be used solely for scholarly purposes. Furthermore, respondents were assured that they could withdraw from the study at any time without facing any adverse consequences. All collected data were treated with strict confidentiality, stored securely, and destroyed after the completion of the study to protect the privacy and identities of the respondents.

III. RESULTS

Table 1 is the descriptive table. It contains the variables involved in the study namely, teacher workload, teacher's professional identity, and job satisfaction, and their corresponding

indicators. Moreover, it contains the standard deviation (SD), the mean, and the corresponding descriptive level.

TABLE 1
DESCRIPTIVE STATISTICS (N=207)

Variables	Standard Deviation	Mean	Descriptive Level
Teacher Workload	0.31	3.58	Very High
<i>Duties and Obligation</i>	<i>0.30</i>	<i>3.74</i>	<i>Very High</i>
<i>Energy</i>	<i>0.36</i>	<i>3.55</i>	<i>Very High</i>
<i>Time</i>	<i>0.40</i>	<i>3.45</i>	<i>Very High</i>
Teacher's Professional Identity	0.31	3.71	Very High
<i>Professional Values</i>	<i>0.29</i>	<i>3.79</i>	<i>Very High</i>
<i>Professional Belongingness</i>	<i>0.34</i>	<i>3.75</i>	<i>Very High</i>
<i>Role Values</i>	<i>0.34</i>	<i>3.80</i>	<i>Very High</i>
<i>Professional Behavior Tendency</i>	<i>0.49</i>	<i>3.50</i>	<i>Very High</i>
Job Satisfaction	0.42	3.37	Very High
<i>Work Environment</i>	<i>0.48</i>	<i>3.29</i>	<i>Very High</i>
<i>Leadership and Support</i>	<i>0.45</i>	<i>3.50</i>	<i>Very High</i>
<i>Professional Growth and Recognition</i>	<i>0.42</i>	<i>3.44</i>	<i>Very High</i>
<i>Compensation and Job Security</i>	<i>0.54</i>	<i>3.25</i>	<i>High</i>

Specifically, Table 1 shows that the teacher workload variable obtains a mean of 3.58, which is described as very high. This indicates that teachers experience extensive responsibilities requiring substantial effort and time. The teacher's professional identity variable obtains a mean of 3.71, which is also described as very high, suggesting that teachers possess a strong and well-developed sense of professional identity. The job satisfaction variable obtains a mean of 3.37, likewise described as very high, reflecting that teachers feel positive and fulfilled in their profession. However, the compensation and job security variable obtains a mean of 3.25, which is

described as high, indicating that while teachers perceive this aspect positively, it is relatively lower compared to the other variables.

The findings show that teachers' professional identity is very strong, indicating a well-developed sense of commitment and identification with the teaching profession, while workload is perceived as manageable, suggesting that teachers are generally able to cope with the demands of their responsibilities. In addition, job satisfaction is interpreted as more satisfied, reflecting a generally positive outlook toward their work; however, compensation and job security, although also rated as more satisfied, are comparatively lower than the other variables, making it the least favorable aspect among those examined.

These results imply that while teachers' intrinsic motivation and professional dedication remain strong, external factors such as pay and job stability pose risks to retention and morale. Addressing these weaker indicators is essential to sustain teacher effectiveness and ensure long-term workforce stability.

Table 2 is the correlation table. It contains the predictive variables, namely Teacher Workload and Teacher's Professional Identity, and the criterion variable, which is Job Satisfaction. It also contains the r-value, the p-value, the decision for the hypothesis, and the corresponding interpretation.

TABLE 2
CORRELATION ANALYSIS

Variables	Job Satisfaction			
	r-value	p-value	Decision on H_0 at 0.05 level of Significance	Interpretation
Teacher Workload	0.51	<.000	Reject H_0	Moderate Positive, Significant
Teacher's Professional Identity	0.56	<.000	Reject H_0	Moderate Positive, Significant

Specifically, Table 2 shows that the correlation between teacher workload and job satisfaction obtained a p-value of $<.000$, which is less than the 0.05 level of confidence, hence the null hypothesis was rejected. It indicates that their correlation is significant. Further, it obtained an r-value of 0.51, which signifies that their correlation is moderately high. On the other hand, the correlation between teachers' professional identity and job satisfaction also obtained a p-value of $<.000$, which is less than the 0.05 level of confidence, hence the null hypothesis is rejected. It indicates that their correlation is significant. With the obtained r-value of 0.56, it signifies that their correlation is moderately high. This implies that both teacher workload and professional identity are meaningfully related to job satisfaction, with professional identity showing a slightly stronger relationship with teachers' satisfaction.

Both teacher workload and teachers' professional identity have significant positive relationships with job satisfaction. However, teachers' professional identity shows a slightly stronger association with job satisfaction compared to teacher workload, indicating it has a more pronounced relationship with how satisfied teachers are in their profession.

Table 3 presents the regression analysis. It contains the predictors, namely Teacher Workload and Teacher's Professional Identity, and the criterion variable, which is Job Satisfaction. It also includes the coefficients (β), the t-values, the p-values, the decisions on the hypotheses, and the corresponding interpretations.

TABLE 3
REGRESSION ANALYSIS

Variables	Job Satisfaction (DV)			t	Sig.	Decision on H_0	Interpretation
	Unstandardized		Standardized				
	Coefficients B	Coefficients Std. Error	Coefficients (Beta)				
(Constant)	0.19	0.30	—	0.63	0.52	—	—
Teacher Workload (IV ₁)	0.34	0.10	0.25	3.22	0.001	Reject H_0	Positive Significant Influence
Teacher's Personal Identity (IV ₂)	0.52	0.10	0.38	4.99	<.001	Reject H_0	Positive Significant Influence
$R = 0.59$ $R^2 = 0.34$ $F = 54.1$ $p = <.000$							

Specifically, Table 3 shows that the teacher workload variable obtains a standardized beta coefficient of 0.25 with a corresponding p-value of 0.001. It indicates that its 25.0% degree of influence on job satisfaction is significant. Likewise, the teacher's professional identity variable obtains a standardized beta coefficient of 0.38 with a corresponding p-value of <.001. It indicates that its 38.0% degree of influence on job satisfaction is significant. Finally, obtaining an R value of 0.59 and an R-square value of 0.34 with a corresponding p-value of <.000, it indicates that teacher workload and teacher's professional identity have a 34.0% significant combined degree of influence on job satisfaction.

Furthermore, the table shows that both teacher workload and teachers' personal identity have a positive and significant influence on job satisfaction, with personal identity exerting a stronger effect than workload. In addition, the model indicates a meaningful combined influence of the two variables on job satisfaction, explaining a substantial proportion of its variation among teachers. Overall, the results suggested that while workload positively influenced satisfaction,

fostering a strong professional identity was particularly critical for enhancing teachers' overall job satisfaction and sustaining their long-term commitment to the profession.

Summary of Findings

Based on statistical results, it specifically was found that:

1. Teacher Workload significantly correlates with Job Satisfaction.
2. Teacher's Personal Identity significantly correlates with Job Satisfaction.
3. Teacher Workload has a positive significant influence on Job Satisfaction.
4. Teacher's Personal Identity has a positive significant influence on Job Satisfaction.
5. Teacher Workload and Teacher's Personal Identity have a positive significant combined influence on Job Satisfaction.

IV. DISCUSSIONS

Teacher Workload and Job Satisfaction Correlation

The finding of this study revealed that teacher workload has a significant moderately high correlation with job satisfaction affirms prior study stating that perceived workload significantly affects teachers' job-related well-being and satisfaction outcomes, teachers' experiences of workload play a crucial role in shaping their psychological well-being and overall satisfaction in the workplace, as higher perceived demands are closely linked to variations in their work-related attitudes and outcomes (Belizario et al., 2024). Likewise, this current finding affirms Lindström, (2026), who reported that workload, as a key component of teachers' working conditions, is associated with changes in job satisfaction levels, indicating that the demands placed on teachers play an important role in shaping their work-related attitudes. On contrary, this current finding contradicts Pan et al. (2023), who found that increased teacher workload is associated with lower

job satisfaction, suggesting that heavier job demands may negatively affect teachers' satisfaction rather than contribute positively to it.

Teachers' Professional Identity and Job Satisfaction Correlation

The results of this study indicate that teachers' professional identity has a significant moderately high correlation with job satisfaction, affirming prior research which emphasizes that professional identity plays a crucial role in shaping teachers' job-related attitudes and satisfaction outcomes, as a stronger sense of identity is associated with higher levels of engagement and fulfillment in the teaching profession (Wu et al., 2024). Moreover, this current finding is supported by Wang and Yu (2023), who reported that teachers' professional identity significantly contributes to job satisfaction, highlighting its importance in strengthening commitment and positive work experiences among educators. On the other hand, this current finding contrasts the study of Zhang et al. (2024), who found that professional identity does not always directly translate into higher job satisfaction, particularly when teachers experience unfavorable working conditions that may weaken the positive effects of identity on their overall satisfaction.

Job Satisfaction as Predicted by Teacher Workload and Teachers' Professional Identity

The finding of the study asserting that teacher workload and teachers' personal identity have a positive significant combined influence on Job Satisfaction, indicating that both manageable workload and a strong sense of personal identity contribute to higher levels of job satisfaction among teachers, as these factors are closely associated with improved well-being, engagement, and professional commitment in the teaching profession (Skaalvik & Skaalvik, 2020). This current finding affirms the study of Collie et al. (2020), which highlights that teachers' working conditions and psychological resources are significant predictors of job satisfaction and overall well-being. Moreover, it affirms Skaalvik and Skaalvik (2020), who found that workload and occupational stress are strongly linked to teachers' job satisfaction and emotional exhaustion, emphasizing the importance of balanced job demands in maintaining positive work attitudes. On the other hand, this current finding contrasts the work of Keller-Schneider et al. (2020), who emphasized that while professional identity is generally associated with positive work outcomes,

its effect on job satisfaction may vary depending on contextual and school-related factors, suggesting that identity alone is not always sufficient to ensure high satisfaction when workload demands are high.

V. CONCLUSION

Based on the findings, teacher workload and professional identity significantly predict job satisfaction. Although workload contributes positively when teachers perceive their responsibilities as meaningful, professional identity exerts a stronger influence, underscoring the importance of values, belonging, and role commitment. Hence, the Job Demands–Resources framework (Bakker & Demerouti, 2017) positing that every occupation is defined by its own unique set of job demands and job resources, was partly supported.

VI. RECOMMENDATIONS

Based on the conclusion, it is recommended that future studies explore other variables not included in this research to explain the remaining 66% of the variance in teacher job satisfaction. Qualitative approaches may also be used to uncover deeper insights into factors such as school culture, leadership support, and compensation that influence satisfaction. In addition, the Department of Education and school administrators are encouraged to design programs that strengthen teachers' professional identity and provide manageable workloads. Such initiatives will help teachers feel valued, supported, and committed to their roles, thereby improving their overall job satisfaction and aligning with the broader goal of promoting quality education under SDG 4.

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