

# Job Satisfaction, Self-Efficacy, and Motivation as Predictors of Mathematics Teaching Performance

Aledon D. Amiang<sup>1</sup>, Rodrigo A. Salimaco, Jr., PhD<sup>2</sup>

<sup>1</sup>Teacher 2, Mayo National High School, City of Mati, Davao Oriental, Philippines <sup>2</sup>Assistant Professor II, Davao Oriental State University, Davao Oriental, Philippines Email address: <sup>1</sup>aledonamiang17@gmail.com, <sup>2</sup>rodrigosalimacojr@gmail.com

Abstract—Teaching encompasses the skills and abilities of educators to handle all aspects of their training, execution, and assessment. This study examines the factors that impact the performance of Mathematics-Major Teachers in Junior and Senior High Schools in Mati City, Philippines, in light of the ongoing problem of low mathematics achievement among Filipino students. The study employs a quantitative, non-experimental research methodology to investigate the levels of job satisfaction, self-efficacy, and motivation among 82 teachers at public schools in the City of Mati. The research examines the association between these characteristics and teaching performance using descriptive correlational and causal-comparative approaches. The findings indicate that mathematics teachers exhibit heightened levels of job satisfaction, self-efficacy, and motivation. Significantly, self-efficacy (M=4.28) and motivation (M=4.07) were found to be strong predictors of teaching success. The linear regression analysis reveals that a 0.341 unit increase in instructors' self-efficacy and a 0.323 unit increase in motivation are associated with a one-unit increase in teaching performance (F=40.629, p<0.001), explaining 64.2% of the variation. The results emphasize the significance of customized professional development initiatives to enhance teachers' self-assurance, drive, and contentment in their work. Policy recommendations involve utilizing established ways to well-informed decision-making by policymakers, support guaranteeing fair and equal access to resources, and establishing mentorship programs at the school level. This study adds to the discussion on improving educational quality by offering empirical observations on the relationship between job satisfaction, selfefficacy, motivation, and teaching performance. It functions as a point of reference for future research efforts aimed at enhancing mathematics education in the Philippines and other areas.

**Keywords**— Job Satisfaction, Self-Efficacy, Motivation, Teaching Performance, Mathematics.

### I. INTRODUCTION

Teacher performance encompasses diverse skills and competencies essential for effective teaching and learning processes (Sudjana and Nana, 2010 as cited by Efendi and Nugroho, 2019; Hartono et al., 2023). Mathematical academic accomplishment is a key concern for educational institutions worldwide (Siebers, 2015 as cited by Salimaco, 2020). The persistent issue of poor mathematics achievement is linked to various factors, including teacher performance, which significantly influences student outcomes (Kupari and Nissinen, 2013; Tshabalala and Ncube, 2016; Yang, 2013; Pardimin and Huda, 2018). Studies highlight that mathematics teachers' performance is critical in shaping student success, with deficiencies in teaching methods and instructional planning being notable problems (Nonyelum et al., 2022). International assessments like PISA and TIMSS reveal that Filipino students consistently score below average in mathematics, emphasizing the need to address factors affecting teacher performance, such as pedagogical knowledge, competency, and teaching strategies (Department of Education, 2019; Mullis et al., 2019; OECD, 2023).

Since pandemic, there have been problems encountered by the teachers in teaching mathematics, and hence, it needs to be continually improved (Salimaco, 2023). Improving teacher performance involves multiple factors, including job satisfaction, self-efficacy, and motivation (Hartono et al., 2023). Job satisfaction varies across countries, with some teachers experiencing high satisfaction while others face challenges like excessive paperwork and unfair promotion processes (Bentley et al., 2013; Thadathil, 2015; Sacramento, 2021; Bustami et al., 2022). Studies suggest that dissatisfaction among teachers leads to poor commitment and productivity (Mainali and Belbase, 2023). Self-efficacy also plays a crucial role, directly impacting teacher performance, as evidenced by studies in Indonesia (Alfredo and Prijanto, 2022; Batubara et al., 2021). Additionally, motivation, influenced by factors like promotion schemes and working conditions, significantly affects teacher performance (Rahmawati et al., 2019 as cited by Effiyanti et al., 2023; Ndukwu and Edo, 2020; Karoga and Hassan, 2018; Shaikh, 2012 as cited by Kumari and Kumar, 2023).

Given the low mathematics achievement in the Philippines, it is vital to explore the factors influencing mathematics teachers' performance (Comighud and Arevalo, 2020). The researcher aims to examine the levels of job satisfaction, self-efficacy, and motivation among Junior and Senior High School Mathematics-Major Teachers in Mati City, Philippines. This study seeks to determine which of these factors best predicts teaching performance and to understand their interconnections. Despite previous research, there is limited focus on mathematics teachers' performance, especially in the context of face-to-face learning post-COVID-19 pandemic. The research location and the recent introduction of modified RPMS tools for performance evaluation further justify the study (DO No. 008, s. 2023).

The study's findings will contribute to the professional development of teachers and the advancement of educational quality in the Philippines. By examining the relationship between job satisfaction, self-efficacy, motivation, and teaching performance, the research aims to provide insights and strategies for enhancing teacher performance. This



research is timely, considering the resumption of face-to-face classes and the new RPMS tools, which present unique challenges and opportunities for evaluating and improving mathematics teaching performance. Ultimately, the study hopes to encourage educators to foster these critical factors in an ever-changing educational landscape.

## II. RESEARCH OBJECTIVES

This study aimed to examine the influence of job satisfaction, self-efficacy, and motivation on Mathematics teaching performance among Junior and Senior High School Mathematics-Major Teachers I-III of 20 schools composing Secondary and Integrated Schools of the Schools Division of the City of Mati for the SY 2022-2023. The specific study research objectives were as follows:

1. Describe the teachers in terms of gender, age, teaching position, highest educational attainment, and number of years in teaching.

2. Determine the level of teachers' job satisfaction in terms of:

- a. Supervision
- b. Colleagues
- c. Working Conditions
- d. Pay
- e. Responsibility
- f. Teaching
- g. Promotion
- h. Security
- i. Recognition
- j. Professional Development
- 3. Determine the level of teachers' self-efficacy in terms of:
  - a. Student Engagement
  - b. Classroom Management
  - c. Instructional Strategies
- 4. Determine the level of teachers' motivation in terms of:
  - a. Existence Needs
  - b. Relatedness
  - c. Growth Needs
- 5. Determine the level of teachers' teaching performance.

6. Determine the relationship of teacher's job satisfaction and teaching performance; teacher's self-efficacy and teaching performance; and teacher's motivation and teaching performance.

7. Determine which variable best predicts the teachers' teaching performance during the full implementation of face-to-face classes after distance learning.

## III. MATERIALS AND METHODS

#### Research Design

This study utilized a quantitative, non-experimental research methodology that combined descriptive correlational and causal-comparative methodologies to systematically measure and assess the professional experiences of Mathematics teachers. The descriptive technique yielded a precise representation of the target population, whereas correlation research sought to identify noteworthy connections between work satisfaction, self-efficacy, motivation, and teaching performance. The purpose of the causal-comparative approach was to identify the elements that can predict and influence performance results. The study aims to provide empirical information to inform strategies for improving teaching effectiveness and professional development in education by analyzing factors such as working environment, recognition, professional development, student engagement, instructional tactics, and motivational dynamics.

## Research Locale and Sampling

Participants of this study were included if they were Junior and Senior High School Mathematics-Major Teachers I-III of the 20 public schools in the Schools Division of the City of Mati, composed of Secondary and Integrated Schools. They must have taught Mathematics for the entire school year 2022-2023 and have accomplished the IPCRF for the said school year. Additionally, teachers in Integrated Schools who were included were those appointed only in High School, not in Elementary School. Therefore, if any of the criteria above were not met by the participant, he or she was excluded from the study.

Originally, there were 23 public schools in the said Division; however, three of those did not have teachers who fit the criteria. Thus, they were automatically excluded, and all the remaining schools were the subjects of the study through complete enumeration or universal sampling technique. This implied that the selection in this study was just and fair. The participants were sufficient to address the objectives of the study. Furthermore, there were no vulnerable participants involved in this study.

#### Research Instrument

The study employed a blend of researcher-developed and modified questionnaires, consisting of 145 questions divided into two sections, which were verified by experts in the field. Part one collected demographic information, while part two utilized modified tools to evaluate Job Satisfaction, Self-Efficacy, Motivation, and Teaching Performance. Job Satisfaction was assessed using a 77-item questionnaire developed by Cirocki et al. (2023), which demonstrated a good level of internal consistency with a Cronbach's alpha coefficient of 0.93. The 24-item Teachers' Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Hoy (2001) was used to assess self-efficacy. The scale demonstrated a reliability coefficient of 0.92. The assessment of motivation was conducted using a modified questionnaire derived from the work of Comighud and Arevalo (2020), which examined the dimensions of existence, relatedness, and growth demands. The assessment of teaching performance was conducted by evaluating teachers' IPCRF Numerical evaluations or reviewing their records, with the evaluations being compared to Adjectival Rating Equivalences.

## Data Gathering

The investigation encompassed many crucial stages: acquiring requisite authorizations, conducting the assessment, and retrieving the data. At first, the researcher obtained approval from the defense panel and the Office of Research Ethics at Davao Oriental State University. Subsequently,

Aledon D. Amiang and Rodrigo A. Salimaco, "Job Satisfaction, Self-Efficacy, and Motivation as Predictors of Mathematics Teaching Performance," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 1, pp. 25-31, 2024.



approval was requested from the Schools Division of Mati City, district offices, and school administrators, employing online communication as necessary. After acquiring the necessary approvals, the researcher distributed verified and reliable questionnaires to Mathematics teachers either in person or through online platforms. Prior to participating, teachers were given a detailed explanation of the study's objectives and methods and were required to give their agreement after being fully informed. Upon completion of the surveys, data was expeditiously gathered from both physical questionnaires and Google Forms, thereafter compiled, analyzed, and interpreted.

## Data Analysis

Data analysis is the process of organizing data into meaningful and useful information that is used to answer research questions (Mvumbi and Ngumbi, 2015). However, raw data collected from the field through questionnaires can be challenging to analyze. Therefore, the researcher processed, analyzed, and interpreted the data using quantitative techniques. Data obtained from the questionnaire was cleaned, checked, and sorted in line with the research questions. After cleaning the data by removing invalid entries, the researcher organized the data into homogeneous groups, then coded and entered the data into the computer using the Statistical Package for Social Sciences software. The data was analyzed through descriptive and inferential statistics. Descriptive statistics comprised means, frequencies, and percentages. Inferential statistics were analyzed using linear regression and correlation analysis. The decision rule was: if  $\langle P \rangle$  leg  $\langle alpha \rangle$ \), the null hypothesis would be rejected, meaning that the observed difference was significant, that is, not due to chance. However, if the  $\langle (p \rangle)$ -value was greater than 0.05 ( $\langle (p \rangle)$ \alpha \)), the null hypothesis would be accepted, meaning that the observed difference between variables was not significant. The decision rule was that the null hypothesis would be rejected if the  $\langle (P \rangle)$ -value was less than the critical level of  $\langle$ (alpha = 0.05). The Beta Regression coefficient was used to establish how a change in the independent variable would cause a change in the dependent variable.

#### Ethical Considerations

Prior to commencing the study, authorization was acquired from the Davao Oriental State University Research Ethics Office, guaranteeing adherence to ethical standards. Participants were provided with informed consent papers that clearly outlined the goal of the study, emphasized the voluntary nature of participation, and informed them of their rights, including the ability to withdraw from the study or choose to answer any distressing questions. The study's findings are intended to be advantageous for the Department of Education, politicians, school administrators, teachers, and future researchers. Strict confidentiality was guaranteed, ensuring that all data was only used for research purposes and subsequently deleted after publication. Participants incurred no fines for abstaining and maintained their legal entitlements. Any issues could be addressed by contacting either the researcher or the Research Ethics Office of the university.

Participants who agreed to take part in the study signed the consent form, were provided with a copy, and received tokens of appreciation.

IV. RESULTS AND DISCUSSION

TABLE 1	Socio I	Demograph	ic Profile	of the	Respondent	c
	DOCIO I	Jonnograph	ic i ionic	or une	respondent	ω

		Frequency	Percentage
<u> </u>		( <i>n</i> =82)	(100%)
Gender	Male	44	53.66
	Female	38	46.34
Age	21-30	23	28.05
	31-40	29	35.37
	41-50	22	26.83
	51-60	8	9.76
Teaching Position	Teacher I	41	50.00
	Teacher II	24	29.27
	Teacher III	17	20.73
Highest Educational	College Graduate	18	21.95
Attainment	With Master's Units	42	51.22
	Master's Graduate	19	23.17
	With Doctoral Units	3	3.66
Number of years in	2-5 years	21	25.61
Teaching	6-10 years	31	37.80
	11-15 years	13	15.85
	16-20 years	9	10.98
	21-25 years	4	4.88
	26-30 years	2	2.44
	More than 30 years	2	2.44

The sociodemographic profile of Mathematics-Major teachers is presented in Table 1, where the majority of the teachers are male. This is consistent with other studies that have looked at the prevalence of male math educators (Gyeltshen, 2021; Cruickshank, 2017). The gender disparity has an impact on teaching methods and attitudes towards mathematics (Mahmad, 2023; Asrial, 2019). The majority of teachers fall between the age range of 31-40, which aligns with research indicating that this demographic utilizes a wide range of teaching methods and creative approaches (Malgapo, 2020; Ilany, 2021). Nevertheless, there is need for growth in the areas of professional development and parental involvement (Solfiah, 2018). 50% of the teachers occupy the role of Teacher I, which emphasizes the difficulties in advancing their careers and the unequal access to professional growth possibilities (Basbas, 2022; Novio, 2018). A significant number of educators actively seek higher-level academic qualifications, demonstrating their dedication to enhancing their professional development and the subsequent improvement in their teaching proficiency (Casian et al., 2021).

TABLE 2. Level of Teacher's Job Satisfaction.	
---	--

	Indicators	Mean	<b>Descriptive Interpretation</b>
1.	Supervision	4.15	Agree
2.	Colleagues	4.15	Agree
3.	Working Conditions	3.94	Agree
4.	Pay	3.57	Agree
5.	Responsibility	4.21	Strongly Agree
6.	Teaching	4.16	Agree
7.	Promotion	3.84	Agree
8.	Security	3.61	Agree
9.	Recognition	3.96	Agree
10.	Professional Development	3.96	Agree
	Overall	3.93	Agree



The results for every indicator of teachers' job satisfaction are shown in Table 2. It demonstrates how elements like accountability and instruction received high average scores, signifying a high degree of fulfillment. Conversely, the remuneration received lower rankings, suggesting areas that require improvement. The results align with Molano's (2020) findings, which revealed that secondary Mathematics teachers reported general contentment while expressing concerns regarding their remuneration. This citation contains comprehensive educational research that explores the themes of salary equity and challenges in teacher compensation (Yan, 2022; Toropova, 2020; Mehmeti, 2023; Ahmad, 2021). Furthermore, the dynamics of job satisfaction are impacted by individual demographics, including gender and experience (Mehmeti, 2023). The academic discourse revolves around the comparative importance of professional growth and educational resources in relation to equitable remuneration. This highlights the need for a thorough and all-encompassing approach in policy development and execution. To effectively tackle these intricate elements, it is imperative to prioritize the enhancement of professional skills, establish nurturing work conditions, and ensure fair and equal remuneration. It is crucial for boosting job happiness, inspiring instructors, and

TABLE 3. Level of Teachers'	Sense of Efficacy Scale.
-----------------------------	--------------------------

improving the quality of instruction.

Indicators		Mean	<b>Descriptive Interpretation</b>
1.	Student Engagement	4.25	A great deal
2.	Instructional Strategies	4.25	A great deal
3.	Classroom Management	4.34	A great deal
	Overall	4.28	A great deal

The self-efficacy markers for teachers are shown in Table 3. The data indicates that classroom management achieved the highest rating, with an average score of 4.34. The average score for both student involvement and teaching approaches was 4.25. Thus, the average degree of self-efficacy was 4.28. This aligns with previous research undertaken by Pardimin (2018) and Julaihi (2020), which also discovered that mathematics teachers exhibit a significant degree of selfefficacy. The research undertaken by Williams (2019) and Alrajeh (2020) highlights the importance of instructional assistance, instructor gender, and experience in shaping student engagement. Similarly, Guangbao (2021) and Pratiwi (2018) emphasize the positive impacts of instructors' constructivist beliefs and classroom climate. Mukuka (2021) asserts that self-efficacy has a mediating role in the influence of instructional strategies on students' mathematical reasoning. According to González (2020), confidence in teaching methods can be impacted by factors such as geographical location and professional expectations. The high level of selfassurance exhibited by mathematics instructors in the Philippines can be attributed to the initiatives undertaken by the Department of Education, which encompass innovative teaching methodologies and avenues for professional development. It is crucial to sustain and enhance these endeavors to aid teachers in proficiently overseeing their

classrooms, captivating students, and executing instructional techniques.

TABLE 4. Level of Teachers' Motivation.					
Indicators Mean Descriptive Interpretation					
1.	Existence Needs	4.01	Often		
2.	Relatedness	4.12	Often		
3.	Growth Needs	4.07	Often		
	Overall	4.07	Often		

Table 4 provides a summary of the metrics used to gauge the motivation of teachers. Out of these variables, relatedness had the highest average score of 4.12, followed closely by growth needs at 4.07, and existence needs with an average of 4.01. The results indicate a generally high level of motivation among mathematics teachers, particularly in areas related to teamwork and professional development. Existing literature supports the importance of connection in enhancing teacher motivation, emphasizing the crucial role of collaboration and recognition in strengthening internal motivation. According to Tachie (2022), cooperation allows teachers to effectively understand difficult topics and improve their teaching skills. Additionally, Sahat (2018) emphasizes the good impact of collaboration on motivation and interaction. Furthermore, according to Corkin (2018), the provision of autonomy support by school principals has a good impact on teachers' inherent appreciation for the act of teaching. Nevertheless, despite the overall high levels of motivation, the comparatively low score in terms of existing needs, especially regarding income and incentives, requires closer examination. This aligns with other research that establishes a connection between teacher motivation and financial considerations, highlighting the stimulating impact on motivation levels (Comighud, 2020; Al-Issa, 2021). These findings emphasize the importance of creating a supportive and cooperative environment, establishing useful ways to give feedback, and addressing both financial and non-financial aspects of teacher motivation to enhance overall teaching effectiveness and professional development in the field of mathematics. Additional investigation is necessary to clearly define the specific influence of compensation on the motivation of mathematics teachers.

The teaching performance of math teachers is shown in Table 5, where every indicator shows a "very high" descriptive equivalent, which denotes extraordinary achievement. The application of knowledge across curriculum teaching areas received the highest average score, indicating a skillful integration of content knowledge into instructional techniques. Previous research corroborates this, confirming the beneficial effect of aligning instructional content with learning competencies and employing interactive exercises (Dalagan, 2023). Nevertheless, despite the generally excellent assessment, some aspects, such as effectively controlling learner behavior and incorporating ICT into instruction, require further consideration. Research highlights the crucial importance of efficient learner management and the use of ICT technologies in improving instructional effectiveness (Obadire, 2021; Essuman, 2022). The necessity for



customized professional development programs is emphasized by challenges in ICT integration, such as resource constraints and insufficient training (Niem, 2020; Abdullahi, 2022). In addition, teachers who perform at a higher level demonstrate favorable attitudes towards learning, equitable grading methods, and innovative teaching strategies (Gaan, 2022, as referenced in Cimeni and Oco, 2023). This highlights the significance of ongoing teacher development programs in order to achieve all performance indicators and maintain high teaching quality. In summary, although the impressive teaching performance demonstrates the commitment of instructors, it is crucial to implement focused training and development programs to overcome hurdles and improve the effectiveness of instruction and learning outcomes.

TABLE 5. Level of reachers reaching Performance unrough IPCKF Numerical Kaung	TABLE 5. Level of Teachers'	Teaching Performance through	<b>IPCRF</b> Numerical Rating
---	-----------------------------	------------------------------	-------------------------------

	Statement	Mean	Adjectival Rating Equivalences
1.	Applied knowledge of content within and across curriculum teaching areas.	4.73	Outstanding
2.	Used a range of teaching strategies that enhance learner achievement in literacy and numeracy skills.	4.61	Outstanding
3.	Applied a range of teaching strategies to develop critical and creative thinking, as well as other higher-order thinking skills.	4.62	Outstanding
4.	Managed classroom structure to engage learners, individually or in groups, in meaningful exploration, discovery and hands-on activities within a range of physical learning environments.	4.63	Outstanding
5.	Managed learner behavior constructively by applying positive and non-violent discipline to ensure learning-focused environments.	4.60	Outstanding
6.	Used differentiated, developmentally appropriate learning experiences to address learners' gender, needs, strengths, interests and experiences.	4.50	Outstanding
7.	Planned, managed and implemented developmentally sequenced teaching and learning processes to meet curriculum requirements and varied teaching contexts.	4.57	Outstanding
8.	Selected, developed, organized and used appropriate teaching and learning resources, including ICT, to address learning goals.	4.50	Outstanding
9.	Designed, selected, organized and used diagnostic, formative and summative assessment strategies consistent with curriculum requirements.	4.57	Outstanding
	Overall	4.59	Outstanding

TABLE 6. Relationship between Teachers' Job Satisfaction, Self-Efficacy, and Motivation towards their Teaching Performance

Indonondont Variables	Teaching Performance		Desision on II	Desigion on Delationship	
independent variables	R	p-value	Decision on H <sub>0</sub>	Decision on Kelationship	
Teachers' Job Satisfaction	0.668	0.028	Reject	Significant	
Teachers' Self-Efficacy	0.709	0.001	Reject	Significant	
Teachers' Motivation	0.741	< 0.001	Reject	Significant	

The significant and strongly favorable linear connections (r-values of 0.668, 0.709, and 0.741) between instructors' motivation, self-efficacy, and work satisfaction and teaching performance are shown in Table 6. The results indicate that higher levels of job satisfaction, self-efficacy, and motivation are linked to better teaching effectiveness among mathematics instructors. Consistent with previous studies, job satisfaction has been found to have a crucial role in improving productivity and teaching effectiveness (Oco, 2022; Cabaron, 2023). Satisfied instructors exhibit greater levels of performance (Baluyos, 2019). Studies consistently indicate the significant influence of self-efficacy on teaching approaches and job performance (Johansson, 2021; Dogan, 2015; Türkoğlu et al., 2017), emphasizing the importance of teachers' confidence in their abilities. In addition, the literature

emphasizes the significance of motivation in influencing teacher performance and professional development (Mart, 2017; Paz, 2021). Collaboration and managerial skills are identified as elements that impact motivation and subsequently affect performance (Sahat, 2018; Roemintoyo, 2021). Nevertheless, issues including diminished work satisfaction and motivation can have an adverse effect on the quality of teaching, especially in underdeveloped regions (Budhathoki, 2022; Yan, 2022). In summary, our results highlight the complex relationship between the well-being, motivation, and effectiveness of teachers, underlining the importance of specific interventions to promote teacher satisfaction, selfconfidence, and drive in order to achieve better educational results.

TABLE 7. Influence of Teachers' Job Satisfaction, Self-Efficacy, and Motivation towards their Teaching Performance

Madal	Unstandardiz	ed Coefficients	Standardized Coefficients			Desision on H
widdei	В	SE	Beta	i	p-value	Decision on H <sub>o</sub>
(Constant)	1.136	0.318		3.572	0.001	Significant
Teachers' Job Satisfaction	0.101	0.113	0.106	0.897	0.373	Not Significant
Teachers' Self-Efficacy	0.341	0.100	0.356	3.416	0.001	Significant
Teachers' Motivation	0.323	0.085	0.430	3.805	< 0.001	Significant
Model Summary: R= 0.801;	, R square $= 0.64$	2; F-value =40.6	29; p<0.001			

Aledon D. Amiang and Rodrigo A. Salimaco, "Job Satisfaction, Self-Efficacy, and Motivation as Predictors of Mathematics Teaching Performance," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 1, pp. 25-31, 2024.

The regression analysis in Table 7 demonstrates that instructors' self-efficacy and motivation have a significant impact on their teaching performance. The p-values of 0.001 and <0.001 for self-efficacy and motivation, respectively, indicate statistical significance. An increase of 0.341 units in teachers' self-efficacy and an increase of 0.323 units in motivation equate to an increase of one unit in teaching performance. The regression model, with an F-value of 40.629 and p<0.001, accounts for 64.2% of the variation, indicating that it is a statistically significant predictor of teaching performance. The regression model,

TP = 1.136 + 0.341(TS) + 0.323(TM)

implies that there is a relationship between Teachers' Performance (TP), Teachers' Self-efficacy (TS), and Teachers' Motivation (TM). Specifically, the model suggests that changes in mathematics teaching performance are associated with changes in teachers' self-efficacy and motivation. The study refutes the null hypothesis, demonstrating a substantial correlation between instructors' self-efficacy, motivation, and teaching performance, which is consistent with previous research findings (Naoreen et al., 2020; Silalahi & Nazmia, 2023; Effiyanti et al., 2023; Kumari & Kumar, 2023). As per Murwaningsih and Fauziah's (2023) prior research, the study, on the other hand, accepts the null hypothesis that there is no significant association between instructors' job satisfaction and their teaching performance.

#### V. CONCLUSION AND RECOMMENDATION

Mathematics teachers demonstrate elevated levels of job satisfaction, self-efficacy, and motivation, resulting in exceptional teaching performance. There is a clear and positive relationship between job satisfaction, self-efficacy, motivation, and teaching performance. Notably, teachers' self-efficacy and motivation are the most influential factors in predicting teaching performance during the shift from remote learning to in-person classes.

It is advisable for the Department of Education to introduce customized professional development programs to improve the self-confidence, motivation, and job satisfaction of mathematics teachers. Policymakers should use proven methods to guide policy decisions, while school districts should ensure access to resources and provide incentives. School administrators should create mentorship programs and prioritize a healthy work-life balance. Teachers should encourage a culture of ongoing improvement, and future researchers should refer to this study for similar investigations.

#### REFERENCES

- Alfredo, T. R., & Prijanto, B. (2022). The Effect of Teacher Competence and Self-Efficiency on Teacher Performance With Transformational Leadership of the Head of School as a Moderating Variable in Senior High School Tangerang Regency. *Dinasti International Journal of Management Science*, 4(1), 138–144. https://doi.org/10.31933/dijms.v4i1.1410
- [2]. Batubara, M., Zainuddin, Wau, Y., & Nasrun. (2021). The Effect of Self-Efficacy, Organizational Culture, Work Ethic And Job Satisfaction On The Teacher's Performance Of Public Madrasah Aliyah In North Sumatra, Indonesia. International Journal of Science, Technology & Management, 2(3), 1051–1057. https://doi.org/10.46729/ijstm.v2i3.234
- [3]. Bustami, M. R., Azainil, A., & Komariah, L. (2022). Teacher Satisfaction, Self-Efficacy Affect on Teacher Performance: An Evidence from A Vocational School of Pharmaceutical Study Program East Borneo, Indonesia. *EduLine: Journal of Education and Learning Innovation*, 2(3), 291–296. https://doi.org/10.35877/454ri.eduline1159

- [4]. Cabaron, G. J., & Oco, R. M. (2023). Teachers' Level of Motivation and Job Satisfaction. Asian Journal of Education and Social Studies, 45(1), 1–9. https://doi.org/10.9734/ajess/2023/v45i1971
- [5]. Cimeni, J. P., & Oco, R. M. (2023). Productivity, Social Relationship and Teachers Performance. April. https://doi.org/10.2015/IJIRMF/202304013
- [6]. Cirocki, A., Anam, S., Retnaningdyah, P., & Soden, B. (2023). Measuring Job Satisfaction of Indonesian Secondary School English Language Teachers Before and During the Pandemic: A Mixed-Methods Study. *Tesl-Ej*, 27(2), 1–39. https://doi.org/10.55593/EJ.27106A1
- [7]. Comighud, S. M. T., & Arevalo, M. J. (2020). Motivation In Relation To Teachers' Performance. *International Journal of Scientific and Research Publications* (*IJSRP*), 10(4), p10071. https://doi.org/10.29322/ijsrp.10.04.2020.p10071
- [8]. Department of Education. (2019). PISA 2018: National report of the Philippines. 1–44. https://www.deped.gov.ph/wpcontent/uploads/2019/12/PISA-2018-Philippine-National-Report.pdf
- [9]. Department of Education. (2023). Multi-Year Guidlines on the Results-Based Performance Management System-Philippine Professional Standards for Teachers.
- [10]. Efendi, S., & Nugroho, K. U. Z. (2019). Effect of Self Efficacy and Emotional Intelligence on Teacher Performance. 295(ICETeP 2018), 141–143. https://doi.org/10.2991/icetep-18.2019.34
- [11]. Effiyanti, T., Sukirno, S., Widihastuti, W., & Retnawati, H. (2023). Confirming the Effect of Motivation on Teacher Performance in Elementary School: a Meta-Analysis. *TEM Journal*, 12(1), 519–528. https://doi.org/10.18421/TEM121-62
- [12]. Hartono, B. D., Fadilah, H., Muhammad, F., & Akbar, A. (2023). Teacher Performance of Cikeas Nature School: An Analysis of Learning Agility and Work Culture During Work From Home. 3(3), 440–454.
- [13]. Johansson, C. (2021). The impact of teachers ' self -efficacy on their approach to teaching English as a second language and the strategies they perceive as effective for developing students ' self efficacy.
- [14]. Karoga, S. B., & Hassan, A. (2018). Influence of Motivation on the Performance of Secondary School Teachers in Shagari Local Government, Sokoto State, Nigeria. *Interdisciplinary Journal of Education*, 1(1), 39–48. https://doi.org/10.53449/ije.v1i1.32
- [15]. Kumari, J., & Kumar, J. (2023). Influence of motivation on teachers' job performance. *Humanities and Social Sciences Communications*, 10(1), 1–11. https://doi.org/10.1057/s41599-023-01662-6
- [16]. Mainali, B., & Belbase, S. (2023). Job satisfaction, professional growth, and mathematics teachers' impressions about school environment. *Education Policy Analysis Archives*, 31, 1–42. https://doi.org/10.14507/epaa.31.7424
- [17]. Mullis, I. V. S., Martin, M. O., Kelly, D. L., & Fishbein, B. (2019). *Trend International Mathematics and Science (TIMSS).*
- [18]. Murwaningsih, T., & Fauziah, M. (2023). The influence of professional attitude, welfare, self-sustaining development, and job satisfaction on teacher performance. *Journal of Education and Learning*, 17(2), 271– 284. https://doi.org/10.11591/edulearn.v17i2.20785
- [19]. Naoreen, B., Tahira, S. S., Shahzad, D. S., & Jalal, H. (2020). Impact of Self Efficacy of University Teachers on Their Performance. 19(1997), 2241–2248. https://doi.org/10.17051/ilkonline.2020.03.735380
- [20]. Ndukwu, N., & Edo, B. L. (2020). Influence of Motivation on Teachers' Job Performance in Secondary Schools, Rivers State, Nigeria. *International Journal of Innovative Psychology & Social Development*, 8(30(3), 105–111.
- [21]. Nonyelum, D. N., Ogugua, K., & Abah, J. (2022). Influence of Student-Teacher Relationship on the Academic Performance of Junior Secondary School Students in Mathematics in Makurdi Local Government Area of Benue State, Nigeria. *VillageMath Educational Review*, 3(1), 26–52. https://doi.org/10.5281/zenodo.5817149
- [22]. OECD. (2023). PISA 2022 Results Factsheets Philippines PUBE. 1–10. https://oecdch.art/a40de1dbaf/C266.
- [23]. Pardimin, & Huda, M. (2018). Investigating factors influencing mathematics teaching performance: An empirical study. International Journal of Instruction, 11(3), 391–402. https://doi.org/10.12973/iji.2018.11327a
- [24]. Paz, R. M. (2021). Factors Affecting Teachers' Performance in Public Elementary Schools in Schools Division of City of Meycauayan, Bulacan. International Journal of Multidisciplinary: Applied Business and Education Research, 2(11), 1095–1205. https://doi.org/10.11594/10.11594/ijmaber.02.11.10



- [25]. PISA. (2018). Programme for International Student Assessment (PISA) 2018 Philippines Country Note. PISA 2018 Results, 1–12. https://www.oecd.org/pisa/publications/PISA2018\_CN\_PHL.pdf
- [26]. Rahmawati, E., Ibnu Ahmad, K., & Suriansyah, A. (2019). Relationship Between Emotional Intelligence, Spiritual Intelligence and Teacher Performance Through Work Motivation As Intervening Variable in Islamic Elementary School in Banjarmasin, Indonesia. *European Journal Of Education Studies*, 11(5), 142–150. https://doi.org/10.5281/zenodo.2583976
- [27]. Sacramento, R. U. (n.d.). Their Association To Job Performance.
- [28]. Sacramento, R. U. (2023). Emotional Intelligence, Job Satisfaction, Organizational Commitment and Its Relationship to Job Performance: Basis for Professional Development Plan. *Psych Educ*, 14, 2023–1291. https://doi.org/10.5281/zenodo.10032427
- [29]. Salimaco Jr, R. A. (2020). Mathematics Achievement of Senior High School Students-Impact of Study Habits and Anxiety International

Journal of English and Education Mathematics Achievement of Senior High School Students: Impact of Study Habits and Anxiety. July. https://www.researchgate.net/publication/343276344

- [30]. Salimaco Jr, R. A. (2023). Teaching Mathematics Virtually in Higher Education Amidst the Pandemic: A Phenomenological Inquiry. *MIER Journal of Educational Studies Trends & Practices*, 193-211.
- [31]. Silalahi, E., & Nazmia, I. (2023). The Influence of Motivation and Competence on Teacher Performance. International Journal of Social and Management Studies, 4(5), 33–36. https://doi.org/10.5555/ijosmas.v4i5.322
- [32]. Tschannen-Moran, M., & Hoy, A. W. (2001). Teachers' Sense of Efficacy Scale Instrument. *Teaching and Teacher Education*, 17(1), 783–805.

Aledon D. Amiang and Rodrigo A. Salimaco, "Job Satisfaction, Self-Efficacy, and Motivation as Predictors of Mathematics Teaching Performance," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 7, Issue 1, pp. 25-31, 2024.