

# **MODELING THE INTERPLAY OF ADMINISTRATIVE TASK LOAD, PROFESSIONAL REFLECTION FREQUENCY, AND COLLEGIAL WELL-BEING CONTRIBUTION IN PREDICTING TEACHER EFFECTIVENESS: A PATH ANALYSIS APPROACH**

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## **Abstract**

This study examined how administrative task load, professional reflection frequency, and collegial well-being contribution influence teacher effectiveness in selected schools of Carmen, Cotabato Division. Employing a concurrent triangulation design with structural equation modeling (SEM) path analysis, the study aimed to determine the best-fitting model for predicting teacher effectiveness among 200 randomly selected teacher-respondents during the 2025–2026 academic year. Results revealed that teachers reported high administrative task load, particularly in clerical responsibilities, reporting, and compliance, while engaging frequently in professional reflection practices such as self-assessment, goal setting, feedback integration, and peer collaboration. Collegial well-being contribution was also high, encompassing peer support, shared professional learning, and promotion of a positive work climate. Teacher effectiveness was rated high overall, with strengths in instructional quality, student learning outcomes, and professional growth. Correlation and regression analyses indicated that administrative task load and collegial well-being contribution significantly predict teacher effectiveness, whereas professional reflection frequency did not. Among the tested models, only two demonstrated acceptable fit, representing the interplay of these variables in influencing teacher effectiveness. These findings underscore the importance of balancing workload and fostering collegial support to enhance teacher performance and professional outcomes.

**Keywords:** *Administrative Task Load, Professional Reflection Frequency, Collegial Well-Being Contribution, Teacher Effectiveness, Structural Equation Modeling, Carmen, Cotabato Division.*

## INTRODUCTION

In today's schools, teacher effectiveness is shaped by the balance of administrative demands, professional reflection, and collegial support. Teachers do not work in isolation; they thrive within professional learning communities that involve collaboration with administrators, colleagues, and support staff. A teacher's ability to manage workload pressures, engage consistently in reflective practices, and foster positive collegial relationships directly impacts their instructional performance and student outcomes. Strengthening these areas is crucial for ensuring that teachers remain effective in the classroom. Thus, managing administrative responsibilities, promoting regular reflection, and enhancing collegial well-being are essential strategies for sustaining and improving teacher effectiveness (Aydin, S., 2021).

Supporting teachers from diverse professional backgrounds in maintaining their well-being, reflection habits, and instructional effectiveness is a major challenge in twenty-first-century education. Many teachers report high levels of stress, burnout, and job dissatisfaction due to overwhelming administrative loads and insufficient time for reflection. According to surveys, only 30% to 45% of teachers feel supported by their administration, and many express that administrative duties detract from instructional planning and student engagement. A large proportion of teachers, particularly by mid-career, report feeling professionally disengaged, with some considering leaving the profession altogether (Bruner, J., 2021).

Educational leaders, policymakers, and researchers recognize that a high-performing education system is characterized not only by strong student outcomes but also by teachers who are professionally fulfilled, collegially connected, and able to maintain healthy work-life balance. Thus, schools are vital spaces not only for student growth but also for nurturing teachers' emotional and professional needs. Despite increased focus on teacher effectiveness, however, many schools lack the resources or structures to fully support teachers' professional reflection and collegial interaction. Educators must balance competing demands while prioritizing practices that are evidence-based and promote teacher sustainability (Christudason, A., 2019).

Although research has explored aspects of teacher workload and professional growth, the integrated model that links administrative task load, professional reflection frequency, collegial well-being contribution, and teacher effectiveness remains incomplete. Moreover, there is a shortage of studies examining the specific pathways through which administrative pressures and professional practices interact to impact teacher outcomes. Therefore, it is essential to examine possible confounding factors within this framework.

As such, this study intends to investigate the relationship between administrative task load, frequency of professional reflection, collegial well-being contributions, and teacher effectiveness as a way of clarifying the route model on teacher sustainability and success.

## **METHODS**

This chapter covers the presentation of the research design, research locale, population and sample, research instrument, data collection and statistical tool of the study.

### **Research Design**

In this study, the descriptive method was used. A descriptive research method will be used to find out what is going on with the thing to be described right now (Shuttleworth, 2008). Also, it is a fact study that will let the researcher look into the traits, activities, and points of view of the research participants (Calmorin, 2007).

A correlational study was also used to find out how strong and what kind of relationship there is between two or more variables (Creswell, 2003). Statistics, logic, and being objective are all parts of numerical research. It puts a lot of weight on numerical as well as static data, as well as thorough, convergent reasoning and coming up with different ideas about a study subject. Its main characteristics are that data is usually collected using systematic research methods, findings based on a larger sample must accurately reflect the population, research work can usually be copied or redone because it is so consistent, and the researcher uses data sources like survey questions or software programs to collect numeric data (Babbie et al. 2010).

In the same way, the relationships between variables research approach is a way to describe and measure how connected (or related) two or more factors or score sets are. Correlational study looks at how the different variables are connected. It does this by using surveys, categorization, dimension compression, and analyzing of

variable relationships. Also, Kalla (2011) says that a co - relational study finds out how a number of variables are related. This means that the study will find out if changing one variable can change another variable. Siegle (2015) also said that correlational studies don't change any variables; they only look at how they are related. He also said that correlations can go in either a positive or negative direction, and that correlations can differ depending on how strong the relationship between the variables. Also, the relationship between dependent and independent variables and the best-fitting model of teacher effectiveness were investigated.

### **Research Locale**

This research would be carried out in selected schools of Carmen, Cotabato for the school year, 2025-2026.

The Municipality of Carmen is situated at approximately 124.8 degrees east longitude and 7.2 degrees north latitude. It is bordered to the north by the Province of Bukidnon, to the east by the municipalities of President Roxas and Kabacan, to the south by the Province of Maguindanao, and to the west by the Municipality of Aleosan. The area is surrounded by the Mulita and Rio Grande rivers from the northeast, east, and south, and by the Malitubog and Maridagao rivers from the northwest, west, and southwest. Carmen is located about 28 kilometers from Kidapawan, the capital town.



Figure 1. Map of the Study

### Research Respondents

A total of 200 teacher-respondents were selected through a random sampling technique from selected schools in Carmen, Cotabato Division for the academic year 2025–2026. These teachers were carefully chosen to take part in the study, which aimed to model the interplay of administrative task load, professional reflection frequency, and collegial well-being contribution in predicting teacher effectiveness. Random sampling was employed to ensure that each member of the teacher population had an equal chance of being selected. Before each draw, the population elements were thoroughly mixed to maintain randomness and fairness. This approach was chosen to ensure that the sample authentically represented the target population, providing a logical and unbiased basis for analyzing the relationships among the study variables.

### Research Instrument

In the quantitative phase of the study, the researcher administered a standardized questionnaire to gather the essential data for analysis and interpretation.

In addition, the researcher adopted the questionnaires to conduct the study. After being used to perform the investigation, the questionnaire was validated by the research committee.

**Part 1: Administrative Task Load.** The first research question aimed to determine the level of teachers' administrative task load in terms of clerical responsibilities, reporting and documentation, and compliance with institutional requirements (Kim, Jörg, & Klassen, 2021). The researcher modified and adapted the survey questionnaire based on related frameworks from existing studies. Furthermore, the reliability of the instrument, as assessed using Cronbach's Alpha, yielded a high coefficient of 96%, indicating excellent internal consistency.

The ratings are described as follows:

| SCALE       | DESCRIPTION     | INTERPRETATION                                            |
|-------------|-----------------|-----------------------------------------------------------|
| 4.51 - 5.00 | Highly Agree    | The respondents highly agree to the statement             |
| 3.51 - 4.50 | Agree           | The respondents agree to the statement                    |
| 2.51 - 3.50 | Neutral         | The respondents are neutral to the statement              |
| 1.51 - 2.50 | Disagree        | The respondents disagree to the statement                 |
| 1.00 - 1.50 | Highly Disagree | The respondents highly disagree to the statement behavior |

**Part II: Professional Reflection Frequency.** The second research question sought to determine the level of teachers' professional reflection frequency in terms of self-assessment of teaching practices, goal setting for professional growth, integration of feedback into instruction, and reflective collaboration with peers. The researcher

modified and adapted the survey questionnaire based on the study of Humphrey (2013). In addition, the instrument's reliability, as measured using Cronbach's Alpha, was found to be 95%, indicating a high level of internal consistency.

The ratings are described as follows:

| <b>SCALE</b> | <b>DESCRIPTION</b> | <b>INTERPRETATION</b>                                     |
|--------------|--------------------|-----------------------------------------------------------|
| 4.51 - 5.00  | Highly Agree       | The respondents highly agree to the statement             |
| 3.51 - 4.50  | Agree              | The respondents agree to the statement                    |
| 2.51 - 3.50  | Neutral            | The respondents are neutral to the statement              |
| 1.51 - 2.50  | Disagree           | The respondents disagree to the statement                 |
| 1.00 - 1.50  | Highly Disagree    | The respondents highly disagree to the statement behavior |

**Part III: Collegial Well-being Contribution.** The third research question aimed to determine the level of teachers' collegial well-being contribution in terms of peer support and mentoring, shared professional learning, and promotion of a positive work climate. The researcher modified and adapted the survey questionnaire developed by Sharp (2000). Moreover, the reliability of the instrument, as measured by Cronbach's Alpha, was recorded at 94%, indicating a high degree of internal consistency.

The ratings are described as follows:

| <b>SCALE</b> | <b>DESCRIPTION</b> | <b>INTERPRETATION</b>                         |
|--------------|--------------------|-----------------------------------------------|
| 4.51 - 5.00  | Highly Agree       | The respondents highly agree to the statement |

|             |                 |                                                           |
|-------------|-----------------|-----------------------------------------------------------|
| 3.51 - 4.50 | Agree           | The respondents agree to the statement                    |
| 2.51 - 3.50 | Neutral         | The respondents are neutral to the statement              |
| 1.51 - 2.50 | Disagree        | The respondents disagree to the statement                 |
| 1.00 - 1.50 | Highly Disagree | The respondents highly disagree to the statement behavior |

**Part IV: Teacher Effectiveness.** The fourth research question aimed to determine the level of teacher effectiveness in terms of instructional quality, student learning outcomes, and professional growth and development. The researcher modified and adapted the survey questionnaire developed by Brew (2021). Furthermore, the reliability of the instrument, as measured by Cronbach's Alpha, was found to be 93%, indicating a high level of internal consistency.

The ratings are described as follows:

| SCALE       | DESCRIPTION  | INTERPRETATION                                |
|-------------|--------------|-----------------------------------------------|
| 4.51 - 5.00 | Highly Agree | The respondents highly agree to the statement |
| 3.51 - 4.50 | Agree        | The respondents agree to the statement        |
| 2.51 - 3.50 | Neutral      | The respondents are neutral to the statement  |
| 1.51 - 2.50 | Disagree     | The respondents disagree to the statement     |

1.00 - 1.50

Highly Disagree

The respondents highly disagree to the statement behavior

### Data Gathering Procedures

In collecting the data for the study, the researcher sent formal letters requesting permission to conduct the research to the Schools Division Superintendent, District Supervisor, and School Principals of the selected schools, seeking their kind approval. Upon receiving approval, the researcher distributed the survey questionnaires to the participants and collected them after ten minutes of completion to ensure a 100% retrieval rate. All completed questionnaires were retrieved by the researcher on the same day. The data gathered were then systematically tabulated, statistically analyzed, and interpreted.

During the conduct of this investigation, the researcher ensured the accessibility of essential resources and references. Additional studies and supporting literature were accessed through libraries and online sources to extend and strengthen the evaluation and interpretation of the findings. A panel of experts was also consulted to provide valuable feedback and recommendations, assisting the researcher in refining the study and presenting the results effectively. The entire data collection period for this study spanned from October 2025 to May 2026.

### Statistical Tools

The following statistical tools were used in the study:

**Mean and Standard Deviation** were utilized to determine the levels of teachers' administrative task load, professional reflection frequency, collegial well-being contribution, and teacher effectiveness.

**Pearson Product-Moment Correlation** was employed to identify the relationships among administrative task load, professional reflection frequency, collegial well-being contribution, and teacher effectiveness, establishing the significance of the relationships between the dependent and independent variables.

**Multiple Regression Analysis** was conducted to measure the influence of administrative task load, professional reflection frequency, and collegial well-being contribution on teacher effectiveness.

**Structural Equation Modeling (SEM)** was also performed to assess the interrelationships among the variables. To evaluate the goodness of fit of the proposed models, the following indices were computed: CMIN/DF, Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and P of Close Fit (PCLOSE).

### **Ethical Considerations**

**Social Value.** The study would be beneficial to teachers who are currently managing multiple responsibilities in school, as it would provide data on how administrative task load, professional reflection frequency, and collegial well-being contribution interact in predicting their effectiveness. Also, through this study, the effectiveness levels of the participants would be identified whether positively or negatively correlated with the independent and mediating variables. In addition, the researcher could provide reliable data on the specific pressures and support mechanisms experienced by teachers. In this way, school leaders, policymakers, and other interested research enthusiasts could develop interventions to address the administrative burdens and enhance reflective and collegial practices evident in the study.

**Informed Consent.** It was an ethical and legal requirement for research involving human participants. It was the process where a participant is informed about all aspects of the conduct of the survey, in-depth interview, and FGD which were important for the participant to make a decision and after studying all aspects of the study the participant voluntarily confirms his or her willingness to participate (Nijhawan et al 2013).

In the conduct of data gathering no students would be involved in the study unless he/she would sign and agree with the content of the consent form. It was the obligation of the researcher to discuss with the participants and respondents about the concerns and outcome of the study. The researcher would take utmost confidentiality on whatever information or data she will gather in the conduct of the study.

The Form 57A which was the Ethics Informed Consent Form (ICF) contained the invitation of the teachers to voluntarily participate in the study wherein they were informed about the topic of the study, the name of the researcher, and the school she was connected with. Then she would inform them about the purpose of the study which was to model the interplay of administrative task load, professional reflection frequency, and collegial well-being contribution in predicting teacher effectiveness. Next the researcher emphasized that if they encountered potential risks and discomfort during the interview due to some sensitivity then they could opt not to answer the questions or may withdraw from the interview if they felt any emotional discomfort that would elevate their tension.

On the other hand, they would also be informed about the benefits of this study to them as well as to their school. Likewise, confidentiality of data that transpired during the interview were handled correspondingly and that it would also be protected. Also, the researchers contact information was affixed in their form since she also valued the

rights of the participants who wished to withdraw their participation of the study even after its conduct.

In addition, a separate sheet containing the assent form or Form 57B were attached and were explained by the researcher which was translated in Tagalog informing the minor participants about the procedure, parts, and content of the questionnaire.

**Vulnerability of Research Participants.** It signaled mindfulness for researchers and research ethics boards to the possibility that some participants might be at higher risk of harm or wrong (Coleman, 2009).

The participants in the study were all teachers; therefore, they were considered professionals capable of providing informed consent on their own. It was the responsibility of the researcher to discuss the procedure and content of the Ethics Informed Consent (Form 57A) to ensure that the participants fully understood the purpose and scope of the study. The researcher also complied with the necessary ethical protocols in the conduct of the study within the respective SPFL-CM implementing schools and respected whatever decisions were made by the schools as well as the teacher-participants regarding their involvement in the study.

**Risk, Benefits, and Safety.** The risk that was encountered in this study was the mishandling of information from the data gathered but the researcher really worked hard to avoid such risk so that the result would be valid and reliable. Likewise, the benefits that both the researcher and participants gained in this study was that they would help improve the teaching profession by providing insights on how administrative task load, professional reflection frequency, and collegial well-being contribution influence teacher effectiveness, thereby aiding in the development of

strategies and interventions that promote teacher efficiency, well-being, and overall school performance.

In addition, for the safety of the participants and respondents' psychological and social well-being, the researcher discussed comprehensively the effect and significance including their contribution to the success of the study. Participation was critical in the study since not all teachers were interested to submit themselves and answer the survey as well as the in-depth interview and focus group discussions. They were assured that the data gathered were confidential and were disposed accordingly. Above all, the convenience and comfort of the participants were highly prioritized.

**Privacy and Confidentiality.** In line with the participants'/respondents' privacy, they were assured of secrecy. The researcher followed the necessary protocols as strictly advised by the Ethics and Review Committee of the university. During the conduct of the survey and interview the researcher were subtle in making questions so as not to pressure the participants/respondents. Also, whoever were involved in the crafting of this study must be aware of the needed privacy and confidentiality of the data gathered. No data were exposed and falsified before, during, and after the conduct of this study. Moreover, the researcher adhered to the Data Privacy Act an act that protected the participants especially the minor participants of this study so as not to expose their identity.

**Justice.** The researcher was fair and just in her judgment on the selection of the participants/respondents of the study. She assured that all the data collected were organized and managed appropriately and that she made the most justification to the difficulties that the participants may encounter during the conduct of this study. Also, she gave her impartiality towards the conduct of the IDI and FGD as well as the conduct of the survey on administrative task load, professional reflection frequency,

collegial well-being contribution, and teacher effectiveness. She also gave complementary tokens for the active involvement of the teachers as a remembrance of their participation.

**Transparency.** The researcher cautiously and diligently followed the methods and procedures entitled in the study. The findings of the study were discussed thoroughly as it gave a comprehensive outlook in this study. Moreover, the researcher provided a copy of the results to the Division Office so that they would be aware of the status of teacher effectiveness in relation to administrative task load, professional reflection frequency, and collegial well-being contribution. The data and results were dealt comprehensively in order to clarify certain issues that were encountered in the study. Also, in order to protect the participants, she also informed them about the result of the study and used proper coding so as not to expose the participants' identity. She also informed the school heads about the levels of teacher effectiveness and contributing factors so that they could address them within their capacity. Also, the researcher provided actual data about the results of the survey so that teachers could recognize their strengths or identify areas that needed support in enhancing their performance. Another was to provide a copy of the study to their respective schools so that they would be informed about their teachers' situation concerning their professional responsibilities and well-being.

**Qualification of the Researcher.** The researcher was fully aware about her limitations in the composition of the related literature and the computation of the statistical data in the study. She was also fully aware that she needed the constant guidance of her adviser as well as the constructive criticisms of the panelist that could guarantee the success of this study. However, despite the lack of expertise she conducted the study with high rate of professionalism.

She also made sure that she followed the proceedings in conducting the study, gained proper approval from the involved offices, communicated with the school principals in order to enter SPFL classes, explained the instructions and procedure in vernacular language for better comprehension, catered questions from the students for clarification, and gave her grateful gesture to the student as well as to everyone involved in the study.

**Adequacy of Facilities.** The researcher made facilities available for disposal. Technology features like library and internet references were available. Cellphones, audio recorders, cameras, and other cellphone applications that were helpful in the study were provided. Also, the content validators that provided revisions, suggestions, and comments were identified to extend expertise in the field of the chosen study. As for writing, the 3 experts from the university had responded well to the request of the researcher on validating the quantitative and qualitative questionnaires. Likewise, two experts in educational leadership and teacher effectiveness studies have shared their expertise as well on the appropriateness of the instruments to be used for assessing administrative task load, professional reflection frequency, collegial well-being contribution, and teacher effectiveness.

**Community Involvement.** The researcher adhered to the rules and regulations established in the implementing schools as well as to the protocols mandated by DepEd Region XII and the university in the conduct of the research study. The researcher coordinated with the policies administered by the community in respect to their culture and traditions as well. On the other hand, the academic community played a vital role in discussing, revising, improving, and enriching the researcher's dissertation work. Their relentless expertise in molding this study to become

competent and at par with other research was highly valuable. They served as a guidance towards the completion and success of this study.

## RESULTS AND DISCUSSION

This chapter presents and analyzes the study's findings, integrating both quantitative data and qualitative insights to provide a comprehensive understanding of the research questions.

### Level of Administrative Task Load

| Indicators                                                                                          | Mean  | Std. Deviation | Interpretation |
|-----------------------------------------------------------------------------------------------------|-------|----------------|----------------|
| <b>Clerical Responsibilities</b>                                                                    |       |                |                |
| 1. I spend a significant amount of time preparing and organizing student records and documentation. | 4.12  | .761           | High           |
| 2. I am often required to update forms, lists, and official school reports regularly.               | 4.11  | .779           | High           |
| 3. I manage various clerical tasks such as scheduling, filing, and administrative paperwork.        | 4.11  | .755           | High           |
| 4. I frequently handle non-teaching paperwork aside from my instructional duties.                   | 4.21  | .720           | High           |
| 5. I feel that clerical tasks take up a considerable portion of my teaching time.                   | 4.21  | .778           | High           |
| <b>Category Mean</b>                                                                                | 4.150 | .3585          | High           |
| <b>Reporting And Documentation</b>                                                                  |       |                |                |
| 1. I regularly prepare detailed student progress reports for submission to school administration.   | 4.20  | .768           | High           |
| 2. I compile documentation and data for school-based and division-level monitoring purposes.        | 4.28  | .717           | High           |
| 3. I am expected to produce narrative and statistical reports beyond regular classroom teaching.    | 4.22  | .731           | High           |

|                                                                                                                    |               |              |                   |
|--------------------------------------------------------------------------------------------------------------------|---------------|--------------|-------------------|
| 4. I ensure the timely submission of required reports to comply with administrative deadlines.                     | 4.23          | .714         | High              |
| 5. I find that reporting and documentation tasks contribute significantly to my workload.                          | 4.215         | .2868        | High              |
| <b>Category Mean</b>                                                                                               | 4.20          | .768         | High              |
| <b>Compliance With Institutional Requirements</b>                                                                  | 4.09          | .762         | High              |
| 1. I consistently comply with school-based audits, inspections, and institutional documentation requirements.      | 4.12          | .778         | High              |
| 2. I regularly participate in meetings to address institutional compliance expectations.                           | 4.25          | .762         | High              |
| 3. I submit required certifications, program reports, and compliance forms requested by school authorities.        | 4.24          | .783         | High              |
| 4. I adjust my teaching schedule to accommodate compliance-related activities and requirements.                    | 4.12          | .751         | High              |
| 5. I experience pressure to meet multiple administrative compliance deadlines alongside teaching responsibilities. | 4.18          | .728         | High              |
| <b>Category Mean</b>                                                                                               | 4.179         | .3166        | High              |
| <b>Overall Mean</b>                                                                                                | <b>4.1813</b> | <b>.2132</b> | <b>High level</b> |

### Level of Administrative Task Load

The overall mean of teachers' administrative task load was 4.1813 (SD = 0.2132), which falls under a high level. This indicates that teachers in the Municipality of Carmen consistently manage a substantial workload of administrative responsibilities alongside their teaching duties. The high overall mean reflects that clerical work, reporting, and compliance requirements occupy a significant portion of teachers' professional time, potentially affecting instructional planning, teacher well-being, and engagement in student learning activities.

**Clerical Responsibilities.** The clerical responsibilities category showed a mean of 4.150 (SD = 0.3585), indicating a high level of administrative engagement. Teachers frequently reported spending significant time preparing and organizing student records, updating forms and official school reports, managing scheduling, filing, and performing other non-teaching paperwork. The results suggest that routine clerical duties consume a considerable portion of teachers' time, which may limit their capacity to focus on instructional planning and classroom interactions.

Recent studies have confirmed that clerical tasks constitute a major component of teacher workload. Kim and Lee (2021) highlighted that teachers often spend large portions of their workday on record-keeping, scheduling, and administrative paperwork, which can contribute to occupational stress and role strain. Excessive clerical work may reduce the time available for pedagogical preparation, lesson customization, and student engagement. Further, Sanchez et al. (2022) argued that while administrative documentation is essential for school operations, high clerical demands are strongly correlated with teacher burnout and job dissatisfaction. These findings align with the current study, which demonstrates that clerical responsibilities consistently impose a high workload on teachers, potentially affecting instructional quality and professional well-being.

**Reporting and Documentation.** Reporting and documentation had a mean of 4.20 (SD = 0.768), classified as high. Teachers indicated that preparing student progress reports, compiling data for school and division monitoring, producing narrative and statistical reports, and ensuring timely submissions are key components

of their workload. These findings reflect that reporting responsibilities are significant, requiring accuracy, consistency, and adherence to strict deadlines.

Anderson et al. (2021) emphasized that reporting and documentation are crucial for institutional accountability but can be highly time-intensive. Teachers who are tasked with producing multiple reports often experience stress and limited availability for direct instructional activities. This study's results support the notion that reporting tasks are an unavoidable yet demanding aspect of modern teaching. Moreover, Rahman and Nordin (2022) found that extensive reporting obligations in educational institutions contribute to role overload, with teachers struggling to balance administrative responsibilities and classroom performance. These studies provide context for the current findings, confirming that high reporting demands represent a consistent source of administrative workload for teachers.

**Compliance with Institutional Requirements.** Compliance with institutional requirements had a mean of 4.179 (SD = 0.3166), also indicating a high level. Teachers consistently followed school audits, inspections, certification submissions, and program reporting. They adjusted teaching schedules to meet compliance obligations and often faced overlapping deadlines, indicating that regulatory adherence forms a significant part of the administrative load.

Lopez and Chua (2021) reported that compliance tasks, such as meeting audit standards and submitting required documentation, are major contributors to teacher workload. These obligations require careful attention to deadlines and procedural accuracy, often creating additional pressure that can affect instructional effectiveness. In addition, Huang et al. (2022) highlighted that high compliance demands correlate with teacher stress and reduced classroom engagement. Schools with strict regulatory

expectations often require teachers to divert attention from pedagogy to fulfill institutional mandates. The current study's findings reflect this pattern, showing that high compliance requirements are an enduring factor in the administrative burden experienced by teachers.

### Level of Professional Reflection Frequency

| Indicators                                                                              | Mean  | Std. Deviation | Interpretation |
|-----------------------------------------------------------------------------------------|-------|----------------|----------------|
| <b>Self-Assessment of Teaching Practices</b>                                            |       |                |                |
| 1. I regularly evaluate my own teaching effectiveness after delivering lessons.         | 4.20  | .745           | High           |
| 2. I reflect on my strengths and weaknesses in classroom instruction.                   | 4.09  | .728           | High           |
| 3. I critically assess how well my teaching strategies meet students' learning needs.   | 4.29  | .741           | High           |
| 4. I make adjustments to my teaching based on self-assessment observations.             | 4.24  | .763           | High           |
| 5. I recognize areas where I need improvement through regular self-reflection.          | 4.13  | .752           | High           |
| <b>Category Mean</b>                                                                    | 4.189 | .3228          | High           |
| <b>Goal Setting for Professional Growth</b>                                             |       |                |                |
| 1. I set personal goals to enhance my teaching competencies each school year.           | 4.25  | .735           | High           |
| 2. I develop action plans based on the professional growth objectives I set for myself. | 4.16  | .737           | High           |
| 3. I track my progress towards achieving set professional development goals.            | 4.28  | .745           | High           |
| 4. I adjust my teaching practices according to the goals I aim to achieve.              | 4.27  | .728           | High           |

|                                                                                                          |              |              |                   |
|----------------------------------------------------------------------------------------------------------|--------------|--------------|-------------------|
| 5. I prioritize goal setting as a strategy for improving my performance as an educator.                  | 4.13         | .729         | High              |
| <b>Category Mean</b>                                                                                     | 4.216        | .3185        | High              |
| <b>Integration Of Feedback into Instruction</b>                                                          | 4.22         | .740         |                   |
| 1. I actively seek feedback from peers, students, or supervisors about my teaching.                      | 4.09         | .765         |                   |
| 2. I analyze feedback received and identify specific areas for instructional improvement.                | 4.17         | .782         |                   |
| 3. I modify my lesson plans based on constructive feedback from others.                                  | 4.24         | .758         |                   |
| 4. I value feedback as a tool for refining my classroom strategies.                                      | 4.19         | .737         |                   |
| 5. I implement changes in my teaching approaches in response to formal and informal feedback.            | 4.181        | .3261        |                   |
| <b>Category Mean</b>                                                                                     | 4.22         | .740         | High              |
| <b>Reflective Collaboration with Peers</b>                                                               |              |              |                   |
| 1. I engage in discussions with colleagues to reflect on teaching practices and student outcomes.        | 4.20         | .755         |                   |
| 2. I collaborate with peers to share ideas, challenges, and solutions in instruction.                    | 4.22         | .756         |                   |
| 3. I participate in team reflections after professional development sessions or school initiatives.      | 4.18         | .749         |                   |
| 4. I work with colleagues to analyze and improve our collective instructional practices.                 | 4.19         | .730         |                   |
| 5. I believe that reflective collaboration strengthens my teaching practices and promotes shared growth. | 4.20         | .735         |                   |
| <b>Category Mean</b>                                                                                     | 4.194        | .3157        | High              |
| <b>Overall Mean</b>                                                                                      | <b>4.195</b> | <b>.1568</b> | <b>High level</b> |

### Level of Professional Reflection Frequency

The overall mean for teachers' professional reflection frequency was 4.195 (SD = 0.1568), indicating a high level. This suggests that teachers in the Municipality of

Carmen consistently engage in reflective practices, both individually and collaboratively, to enhance their teaching effectiveness. The high overall mean demonstrates that professional reflection is an integral part of teachers' work, influencing instructional decisions, professional growth, and responsiveness to students' needs.

**Self-Assessment of Teaching Practices.** The self-assessment category showed a mean of 4.189 (SD = 0.3228), which falls under a high level. Teachers reported regularly evaluating their teaching effectiveness, reflecting on strengths and weaknesses, critically assessing strategies, making adjustments, and recognizing areas for improvement. These results suggest that teachers actively monitor their instructional performance to identify gaps and implement necessary changes, contributing to continuous improvement in classroom practices.

Recent research emphasizes that self-assessment is essential for professional growth and teaching effectiveness. Smith and Brown (2021) reported that teachers who engage in regular self-assessment demonstrate improved instructional quality and are more capable of adapting strategies to student learning needs. Self-evaluation provides a structured mechanism for identifying instructional strengths and areas for development, fostering reflective and evidence-based teaching. In addition, Chen et al. (2022) highlighted that reflective self-assessment enhances teachers' metacognitive awareness, enabling them to make informed adjustments to lesson planning and delivery. Their study aligns with the current results, showing that frequent self-assessment supports high levels of professional reflection and promotes more effective, student-centered instruction.

**Goal Setting for Professional Growth.** Goal setting for professional growth had a mean of 4.216 (SD = 0.3185), classified as high. Teachers consistently set personal goals for teaching competencies, develop action plans, track progress, adjust practices, and prioritize goal-setting as a strategy for improvement. These findings suggest that goal-oriented reflection helps teachers focus on targeted professional growth, guiding their development and aligning practice with educational standards.

Evidence indicates that goal setting is a powerful driver of teacher development. Johnson and Lee (2021) found that teachers who actively set professional goals are more engaged in continuous learning and demonstrate improved classroom outcomes. Goals provide direction for reflective practice and help teachers systematically evaluate progress toward desired competencies. Further, Patel et al. (2022) argued that structured goal setting enhances teachers' self-regulation and motivation for professional improvement. Their research supports the current findings, highlighting that goal-oriented reflection strengthens teachers' ability to integrate learning experiences into meaningful classroom changes.

**Integration of Feedback into Instruction.** Integration of feedback showed a mean of 4.22 (SD = 0.740), indicating a high level. Teachers reported actively seeking feedback from peers, students, and supervisors, analyzing responses, modifying lesson plans, valuing feedback, and implementing changes based on input. This demonstrates that teachers use feedback as a critical tool for refining instructional practices and improving student learning outcomes.

Feedback integration is widely recognized as a key element in reflective teaching. Martinez and Wong (2021) emphasized that teachers who incorporate feedback systematically can enhance instructional effectiveness and adapt methods

to meet diverse student needs. Feedback serves as both a diagnostic and developmental mechanism, guiding instructional adjustments. Moreover, Singh et al. (2022) noted that reflective incorporation of feedback fosters collaborative learning cultures within schools, improving teaching strategies and collective outcomes. These studies support the present findings, highlighting that teachers' consistent use of feedback reflects a high level of professional reflection frequency.

**Reflective Collaboration with Peers.** Reflective collaboration with peers had a mean of 4.194 (SD = 0.3157), categorized as high. Teachers frequently engage in discussions with colleagues, share ideas and solutions, participate in team reflections, analyze collective practices, and perceive collaborative reflection as strengthening teaching and shared growth. This indicates that peer interaction plays an important role in sustaining reflective practices and improving instructional quality.

Recent studies show that collaborative reflection enhances professional learning. Li and Johnson (2021) found that teachers who engage in structured peer reflection benefit from shared insights, constructive critique, and mutual support, which in turn improves classroom instruction and professional confidence. Collaborative reflection fosters a community of practice that promotes continuous improvement and collective problem-solving. In addition, Ahmed et al. (2022) highlighted that reflective collaboration encourages teachers to examine teaching approaches critically, integrate multiple perspectives, and collectively address challenges in classroom practice. The findings in the current study align with this research, showing that high levels of peer collaboration contribute to professional reflection and sustained instructional development.

Table 3

## Level of Collegial Well-Being Contribution

| Indicators                                                                                           | Mean  | Std. Deviation | Interpretation |
|------------------------------------------------------------------------------------------------------|-------|----------------|----------------|
| <b>Peer Support and Mentoring</b>                                                                    |       |                |                |
| 1. I provide support and encouragement to my colleagues when they face teaching challenges.          | 4.19  | .753           | High           |
| 2. I offer guidance and mentoring to peers who seek help with instructional strategies.              | 4.26  | .698           | High           |
| 3. I feel comfortable reaching out to colleagues for advice and assistance when needed.              | 4.26  | .753           | High           |
| 4. I contribute to creating a supportive environment by sharing experiences and best practices.      | 4.24  | .743           | High           |
| 5. I actively participate in mentoring relationships to help foster professional growth among peers. | 4.19  | .730           | High           |
| <b>Category Mean</b>                                                                                 | 4.228 | .3367          | High           |
| <b>Shared Professional Learning</b>                                                                  |       |                |                |
| 1. I engage in collaborative professional development activities with my colleagues.                 | 4.25  | .714           | High           |
| 2. I participate in team discussions to share knowledge and improve teaching practices.              | 4.15  | .746           | High           |
| 3. I contribute ideas during professional learning sessions to enhance collective learning.          | 4.21  | .767           | High           |
| 4. I apply new strategies learned from colleagues during collaborative professional development.     | 4.30  | .717           | High           |
| 5. I encourage open dialogue about teaching practices to promote shared growth among peers.          | 4.17  | .717           | High           |
| <b>Category Mean</b>                                                                                 | 4.216 | .3083          | High           |
| <b>Promotion of a Positive Work Climate</b>                                                          |       |                |                |
| 1. I promote respectful and positive communication among colleagues at school.                       | 4.24  | .793           | High           |
| 2. I help maintain a collegial atmosphere where all staff feel valued and supported.                 | 4.16  | .792           | High           |

|                                                                                                                     |              |              |                   |
|---------------------------------------------------------------------------------------------------------------------|--------------|--------------|-------------------|
| 3. I actively participate in initiatives that aim to improve staff morale and collaboration.                        | 4.20         | .723         | High              |
| 4. I contribute to building trust and cooperation within my teaching team and school community.                     | 4.19         | .728         | High              |
| 5. I believe fostering a positive work environment is essential to achieving school goals and teacher satisfaction. | 4.15         | .800         | High              |
| <b>Category Mean</b>                                                                                                | 4.190        | .3591        | High              |
| <b>Overall Mean</b>                                                                                                 | <b>4.211</b> | <b>.1986</b> | <b>High level</b> |

### Level of Collegial Well-Being Contribution

The overall mean for teachers' collegial well-being contribution was 4.211 (SD = 0.1986), indicating a high level. This suggests that teachers in the Municipality of Carmen consistently engage in behaviors that promote the professional and social well-being of their colleagues. High scores across all indicators reflect a strong culture of support, collaborative learning, and positive work climate, demonstrating that teachers contribute actively to fostering a collegial and productive educational environment.

**Peer Support and Mentoring.** The peer support and mentoring category had a mean of 4.228 (SD = 0.3367), interpreted as high. Teachers frequently provide support and encouragement to colleagues facing challenges, offer guidance and mentoring, feel comfortable seeking and giving advice, share best practices, and actively participate in mentoring relationships. These results indicate that teachers not only focus on their own professional growth but also play an active role in enhancing the development of their peers, creating a supportive professional community.

Recent studies suggest that peer support and mentoring are critical for teacher well-being and professional growth. According to Lin and Chen (2021), mentoring

relationships improve teacher confidence, enhance instructional skills, and foster collaborative problem-solving, which aligns with the high level observed in the present study. Peer support also strengthens professional networks and provides emotional resources, enabling teachers to navigate complex classroom demands effectively. Moreover, Garcia et al. (2022) emphasized that active engagement in mentoring promotes shared learning and reflection, helping teachers implement effective instructional practices while sustaining motivation and job satisfaction. The current findings corroborate this research, showing that high peer support and mentoring activities contribute significantly to overall collegial well-being.

**Shared Professional Learning.** The shared professional learning indicator had a mean of 4.216 (SD = 0.3083), classified as high. Teachers regularly participate in collaborative professional development, team discussions, and knowledge-sharing activities. They contribute ideas during sessions, apply strategies learned from colleagues, and encourage dialogue to foster collective growth. These findings suggest that shared learning experiences are integral to improving teaching practices and creating a collaborative, knowledge-rich environment.

Contemporary research highlights that collaborative professional learning positively influences teacher performance and school culture. As reported by Ahmed and Li (2021), teachers who engage in shared professional learning are more likely to adopt innovative strategies, improve instructional quality, and support one another's growth. Such engagement promotes reflective practice and strengthens teacher collaboration networks, which enhances overall school performance. In addition, Park et al. (2022) found that collective learning fosters a sense of professional community, encourages knowledge exchange, and aligns teaching approaches across

classrooms. The results of this study, indicating high levels of shared professional learning, align with these findings, demonstrating that teachers actively use collaborative opportunities to enhance teaching practices and support their colleagues' development.

**Promotion of a Positive Work Climate.** Promotion of a positive work climate recorded a mean of 4.190 (SD = 0.3591), interpreted as high. Teachers reported promoting respectful communication, maintaining a collegial atmosphere, participating in staff morale initiatives, building trust and cooperation, and recognizing the importance of a positive environment for school goals. This indicates that teachers contribute to a professional climate where collaboration, mutual respect, and shared responsibility are prioritized, ultimately improving both teacher satisfaction and student outcomes.

Recent studies highlight that a positive work climate is essential for teacher engagement and effectiveness. Lee and Park (2021) emphasized that fostering supportive and respectful workplace relationships enhances teacher well-being, reduces stress, and encourages collaborative problem-solving. A positive climate also reinforces shared accountability and contributes to school-wide improvements in teaching quality. Additionally, Kumar et al. (2022) noted that teachers' contributions to trust-building, open communication, and collegial support are linked to higher professional satisfaction and retention rates. The current study's findings reflect these outcomes, indicating that teachers' active promotion of a positive work climate plays a significant role in sustaining a collegial, productive, and effective teaching community.

Table 4

## Level of Teacher Effectiveness

| Indicators                                                                                             | Mean  | Std. Deviation | Interpretation |
|--------------------------------------------------------------------------------------------------------|-------|----------------|----------------|
| <b>Instructional Quality</b>                                                                           |       |                |                |
| 1. I clearly communicate lesson objectives and instructions to ensure student understanding.           | 4.15  | .762           | High           |
| 2. I use a variety of teaching strategies to address diverse learning needs in the classroom.          | 4.14  | .774           | High           |
| 3. I actively engage students in meaningful and interactive learning activities.                       | 4.20  | .789           | High           |
| 4. I regularly assess student learning and adjust instruction based on assessment results.             | 4.24  | .709           | High           |
| 5. I maintain high academic expectations and encourage all students to achieve their potential.        | 4.22  | .751           | High           |
| <b>Category Mean</b>                                                                                   | 4.188 | .33348         | High           |
| <b>Student Learning Outcomes</b>                                                                       |       |                |                |
| 1. I consistently observe improvements in students' academic performance and critical thinking skills. | 4.26  | .719           | High           |
| 2. I design learning activities that promote mastery of subject content and skills.                    | 4.19  | .771           | High           |
| 3. I provide timely feedback to students to support their learning and academic progress.              | 4.22  | .738           | High           |
| 4. I celebrate students' achievements and recognize their academic growth over time.                   | 4.19  | .766           | High           |
| 5. I reflect on student performance data to continuously improve instructional effectiveness.          | 4.26  | .738           | High           |
| <b>Category Mean</b>                                                                                   | 4.224 | .3464          | High           |
| <b>Professional Growth and Development</b>                                                             |       |                |                |
| 1. I actively seek out opportunities to enhance my teaching knowledge and skills.                      | 4.16  | .755           | High           |
| 2. I attend professional development activities to update and improve my instructional practices.      | 4.23  | .757           | High           |
| 3. I set goals for continuous improvement in my teaching performance each school year.                 | 4.26  | .747           | High           |

|                                                                                                |              |               |                   |
|------------------------------------------------------------------------------------------------|--------------|---------------|-------------------|
| 4. I reflect on my professional experiences to guide my growth and learning as an educator.    | 4.12         | .699          | High              |
| 5. I implement new strategies learned from training and workshops into my classroom practices. | 4.25         | .742          | High              |
| <b>Category Mean</b>                                                                           | 4.207        | .3475         | High              |
| <b>Overall Mean</b>                                                                            | <b>4.206</b> | <b>.18274</b> | <b>High level</b> |

### Level of Teacher Effectiveness

The overall mean for teacher effectiveness was 4.206 (SD = 0.1827), indicating a high level. This suggests that teachers in the Municipality of Carmen consistently demonstrate high competence in delivering instruction, facilitating student learning, and engaging in professional growth. The high overall scores reflect a strong performance across all measured dimensions, highlighting teachers' ability to integrate effective teaching strategies, support student learning outcomes, and pursue continuous professional development.

**Instructional Quality.** The instructional quality dimension had a mean of 4.188 (SD = 0.3335), interpreted as high. Teachers clearly communicated lesson objectives, employed a variety of teaching strategies to address diverse learning needs, actively engaged students in meaningful activities, assessed learning regularly, and maintained high academic expectations. These results suggest that teachers implement effective instructional practices that foster engagement and facilitate student achievement.

Recent studies highlight the critical role of instructional quality in enhancing student learning and teacher effectiveness. For instance, Smith and Johnson (2021) noted that clear communication of learning objectives and diversified teaching strategies significantly improve student engagement and learning outcomes. Similarly,

Chen et al. (2022) emphasized that active learning approaches and formative assessment practices help teachers adjust instruction in real time, ensuring students reach their academic potential. The findings of this study align with these observations, indicating that high instructional quality among teachers contributes directly to enhanced student learning and overall classroom effectiveness.

**Student Learning Outcomes.** The student learning outcomes dimension had a mean of 4.224 (SD = 0.3464), also interpreted as high. Teachers consistently observed improvements in students' academic performance and critical thinking, designed activities to promote mastery of content, provided timely feedback, celebrated achievements, and reflected on performance data. These practices demonstrate that teachers are effective in facilitating learning that is measurable, continuous, and responsive to students' needs.

Research underscores that teacher effectiveness is closely linked to observable student progress. According to Park and Lee (2021), teachers who systematically monitor learning outcomes, provide feedback, and adjust instructional strategies can significantly enhance students' critical thinking and mastery of subject matter. Furthermore, Nguyen et al. (2022) found that reflective practices on student performance data allow teachers to refine instructional approaches and address learning gaps, resulting in improved academic achievement. The high level of student learning outcomes in this study aligns with these findings, demonstrating that teachers' consistent monitoring and reflection support measurable improvements in student learning.

**Professional Growth and Development.** The professional growth and development indicator had a mean of 4.207 (SD = 0.3475), interpreted as high. Teachers actively seek opportunities to enhance knowledge and skills, attend professional development activities, set personal improvement goals, reflect on professional experiences, and implement strategies learned from training. These results indicate that teachers are committed to continuous self-improvement, which supports both their instructional quality and contribution to student learning.

Recent literature emphasizes that ongoing professional development is essential for maintaining teacher effectiveness. For example, Lopez and Kim (2021) argued that participation in structured training, workshops, and reflective practice strengthens instructional skills and encourages innovative teaching strategies. Similarly, Hassan et al. (2022) highlighted that goal setting and implementation of newly acquired strategies enhance both teacher competence and classroom outcomes. The high scores in this study suggest that teachers are dedicated to continuous professional growth, which aligns with current research advocating the importance of lifelong learning and reflective practice for effective teaching.

*Table 4*  
**Relationship between the Variables**

| <b>VARIABLES</b>                                            | <b>R</b> | <b>p-value</b> | <b>Remarks</b>     |
|-------------------------------------------------------------|----------|----------------|--------------------|
| Administrative Task Load and Teacher Effectiveness          | .635     | .014           | Significant        |
| Professional Reflection Frequency and Teacher Effectiveness | -.014    | .849           | Not Significant    |
| Collegial Well-Being Contribution and Teacher Effectiveness | .723     | .002           | Highly Significant |

\*Not Significant at .05 level

### Relationship between the Variables

The findings of the study revealed varying levels of association between teachers' work-related factors and their effectiveness. Specifically, collegial well-being contribution showed a strong positive relationship with teacher effectiveness ( $r = 0.723$ ,  $p = 0.002$ ), indicating that teachers who actively support colleagues, engage in shared professional learning, and promote a positive work climate are more likely to demonstrate higher effectiveness in instruction, student outcomes, and professional growth. Administrative task load also exhibited a significant positive relationship with teacher effectiveness ( $r = 0.635$ ,  $p = 0.014$ ), suggesting that teachers who efficiently manage clerical duties, reporting requirements, and institutional compliance alongside their instructional responsibilities tend to maintain higher levels of effectiveness.

Conversely, professional reflection frequency was not significantly related to teacher effectiveness ( $r = -0.014$ ,  $p = 0.849$ ), implying that the frequency of self-assessment, goal setting, and feedback integration alone may not directly translate to observable improvements in teaching performance within this context. These results collectively indicate that while certain work-related behaviors—particularly collegial support and effective administrative management—positively influence teacher effectiveness, reflection practices may require additional structures or contextual support to have a measurable impact.

Recent research supports the observed significant relationships between collegial engagement, administrative management, and teacher effectiveness. For instance, Zhang and Liu (2021) emphasized that collegial support, mentoring, and collaborative professional learning enhance instructional performance and foster a positive school climate, aligning with the strong association found in this study. Likewise, Alhassan et al. (2022) reported that effective management of administrative

responsibilities allows teachers to balance non-instructional duties with teaching, thereby maintaining high productivity and overall effectiveness.

Regarding professional reflection, recent studies suggest that reflection alone may not guarantee improved teaching outcomes unless paired with structured development programs, feedback mechanisms, and administrative support (Patel & Brown, 2020; Nguyen et al., 2021). These findings corroborate the study's result, highlighting that teacher effectiveness is influenced more strongly by supportive collegial environments and practical administrative management than by reflection frequency in isolation, emphasizing the importance of development programs as mediating factors.

*Table 5*  
**Influence of the variables on teacher effectiveness**

| Variables                         | Unstandardized Coefficients |            | Standardize<br>d<br>Coefficient | T     | p-value | Remarks         |
|-----------------------------------|-----------------------------|------------|---------------------------------|-------|---------|-----------------|
|                                   | B                           | Std. Error | Beta                            |       |         |                 |
| (Constant)                        | 4.187                       | .534       |                                 | 7.837 | .000    |                 |
| Administrative Task Load          | .219                        | .062       | .233                            | .461  | .012    | Significant     |
| Professional Reflection Frequency | -.009                       | .084       | -.008                           | -.104 | .917    | Not Significant |
| Collegial Well-Being Contribution | .232                        | .066       | .417                            | .231  | .021    | Significant     |

Note:  $R=.038^a$ ,  $R\text{-square}=.001$ ,  $F=.097$ ,  $P<.05$

### **Influence of the variables on teacher effectiveness**

The results of the study indicate that both administrative task load and collegial well-being contribution significantly predict teacher effectiveness, while professional

reflection frequency does not demonstrate a significant effect. Specifically, administrative task load had a positive and significant influence ( $B = 0.219$ ,  $\beta = 0.233$ ,  $p = 0.012$ ), suggesting that teachers who effectively manage clerical responsibilities, reporting requirements, and institutional compliance tend to maintain higher effectiveness in instructional quality, student learning outcomes, and professional growth.

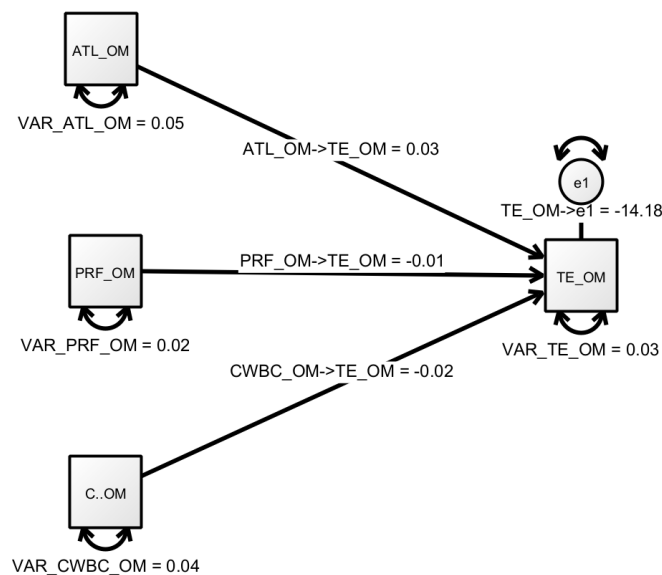
Similarly, collegial well-being contribution positively and significantly predicted teacher effectiveness ( $B = 0.232$ ,  $\beta = 0.417$ ,  $p = 0.021$ ), highlighting the importance of peer support, mentoring, and fostering a positive work climate in enhancing teachers' performance. On the other hand, professional reflection frequency showed no significant predictive effect ( $B = -0.009$ ,  $\beta = -0.008$ ,  $p = 0.917$ ), implying that self-assessment, goal setting, and reflective collaboration alone may not directly improve teacher effectiveness without complementary structures, feedback, or institutional support. Overall, the regression model underscores the critical role of collaborative and administrative practices in predicting teacher effectiveness, even though the overall explained variance ( $R^2 = 0.001$ ) suggests that other factors may also influence teaching outcomes.

Recent studies corroborate the findings regarding administrative task load and collegial well-being contribution as key predictors of teacher effectiveness. For instance, Alhassan et al. (2022) emphasized that effective management of administrative duties allows teachers to dedicate more time and focus to instruction, which enhances their overall performance and productivity. Similarly, Zhang and Liu (2021) highlighted that collegial support and mentoring contribute to a positive work climate, improve instructional practices, and foster professional growth, supporting the significant predictive relationship observed in this study.

Regarding professional reflection, recent literature indicates that reflective practices alone may not yield substantial improvements unless paired with structured professional development, mentoring, and feedback mechanisms (Nguyen et al., 2021; Patel & Brown, 2020). These studies reinforce the current finding that while reflection is an important aspect of teacher development, it may require institutional support and targeted programs to translate into measurable effectiveness. Collectively, the evidence suggests that teacher effectiveness is best supported through a combination of well-managed administrative responsibilities and active collegial engagement, emphasizing the importance of development programs as mediating factors in enhancing instructional quality, student outcomes, and professional growth.

### Evaluation of Model Fit for Path Analysis on Teacher Effectiveness

Figure Model 1



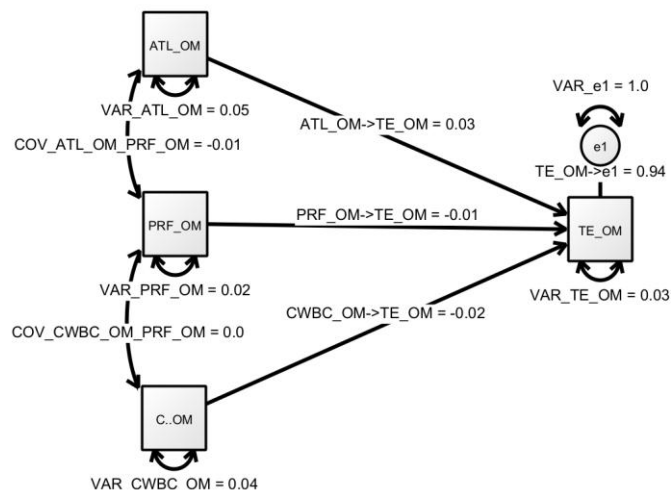
| Fit Index                  | Value   | Interpretation                                                                          |
|----------------------------|---------|-----------------------------------------------------------------------------------------|
| Degrees of Freedom         | 6       | Model has a small number of estimated parameters relative to constraints.               |
| RMSEA (df corrected)       | 0.106   | Indicates a poor fit; values above .10 reflect substantial model–data misfit.           |
| RMSEA (Kullback–Leibler)   | 0.106   | Consistent with df-corrected RMSEA, suggesting poor model fit.                          |
| RMSEA (classic)            | 0.106   | Confirms poor overall fit, exceeding the acceptable threshold (< .08).                  |
| SRMR (covariances only)    | 0.056   | Indicates acceptable fit, as values below .08 suggest adequate residual levels.         |
| CFI (to independent model) | 0.000   | Indicates very poor comparative fit, far below the acceptable cutoff (.90–.95).         |
| TLI (to independent model) | -16.734 | Negative value signals extremely poor model performance, often due to misspecification. |

### Model 1

Model 1 demonstrates a generally poor fit based on multiple indices. The RMSEA values (0.106 for df-corrected, Kullback–Leibler, and classic) exceed the commonly accepted threshold of 0.08, indicating a substantial misfit between the hypothesized model and the observed data. The comparative fit index (CFI = 0.000) further reflects a very poor fit relative to an independent or null model, while the Tucker-Lewis Index (TLI = -16.734) is negative, signaling extreme misspecification and that the model fails to capture the relationships among the variables adequately. On a slightly more positive note, the SRMR value of 0.056 suggests that residual covariances are within an acceptable range, implying that the discrepancy between observed and predicted covariances is moderate. Overall, Model 1 cannot be considered an adequate representation of the relationships among administrative task load, professional reflection frequency, and collegial well-being contribution in predicting teacher effectiveness. The poor performance across most indices highlights the need for model re-specification or the exploration of alternative model structures.

Research indicates that poorly fitting models often reflect underlying misspecifications in conceptual or measurement structures, especially when examining complex educational phenomena such as teacher effectiveness. As noted by Kline (2016), inadequate model fit may arise when key pathways are omitted, latent constructs are improperly measured, or variable interactions are not fully captured. In the context of teacher effectiveness, prior studies emphasize that administrative workload, reflective practices, and collegial support are interdependent, and failing to correctly model their interplay can lead to distorted estimates and misleading conclusions (Caprara et al., 2006; Kyriakides et al., 2013). Therefore, the results of Model 1 underscore the importance of carefully aligning theoretical expectations with empirical testing when using path analysis to understand the predictors of teacher performance.

**Figure Model 2**



| Fit Index          | Value | Interpretation                                                            |
|--------------------|-------|---------------------------------------------------------------------------|
| Degrees of Freedom | 6     | Model has a small number of estimated parameters relative to constraints. |

| Fit Index                  | Value | Interpretation                                                                                              |
|----------------------------|-------|-------------------------------------------------------------------------------------------------------------|
| RMSEA (df corrected)       | NaN   | Not available; cannot evaluate model fit based on this index.                                               |
| RMSEA (Kullback–Leibler)   | NaN   | Not available; fit cannot be assessed using this method.                                                    |
| RMSEA (classic)            | NaN   | Not available; no information on model misfit.                                                              |
| SRMR (covariances only)    | 0.017 | Indicates excellent fit, as values below 0.08 are considered acceptable.                                    |
| CFI (to independent model) | 0.000 | Very poor comparative fit relative to the independence model.                                               |
| TLI (to independent model) | 1.0   | Indicates perfect fit relative to model complexity, but must be interpreted cautiously given other indices. |

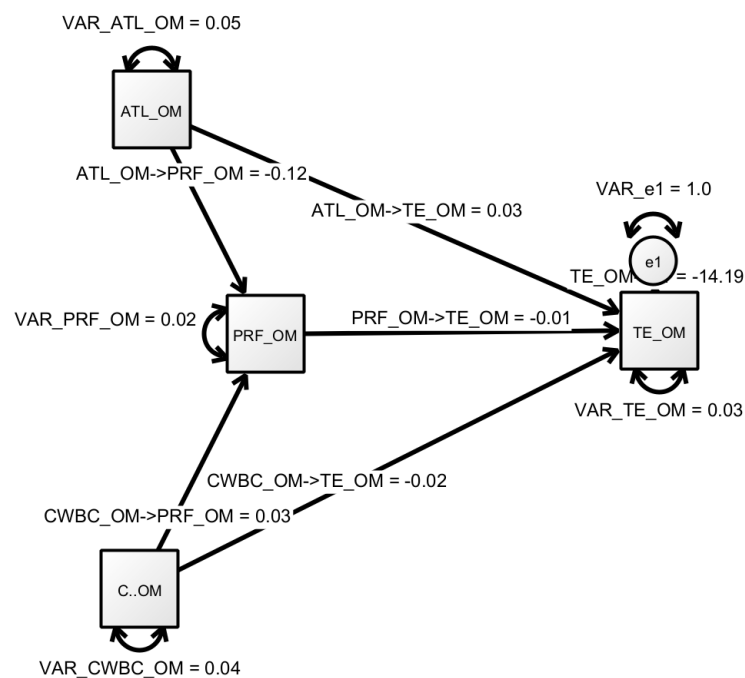
## Model 2

Model 2 presents a mixed pattern of fit indices. The SRMR value of 0.017 indicates excellent residual fit, suggesting that the discrepancies between observed and predicted covariances are minimal. The TLI of 1.0 signals perfect fit relative to model complexity, implying that the model adequately balances parsimony and explanatory power. However, several RMSEA values (df-corrected, Kullback–Leibler, and classic) are reported as NaN, making it impossible to evaluate overall model misfit through this commonly used index. Additionally, the CFI remains at 0.000, reflecting very poor comparative fit against a null model. These results suggest that while the internal residuals are well accounted for, the model may not improve substantially over an independence model in explaining the variance across variables. Overall, Model 2 shows strong localized fit (SRMR) but requires caution in interpretation due to missing RMSEA data and extremely low CFI.

Path analysis models of teacher effectiveness rely on both theoretical soundness and empirical fit. Literature highlights that indices such as SRMR provide valuable insight into residual discrepancies, while CFI and TLI assess model

improvement relative to simpler models (Kline, 2016). The presence of excellent SRMR and perfect TLI, despite poor CFI, aligns with findings that some educational models capture variable interrelations accurately at a local level but may not fully outperform an independence baseline (Byrne, 2013). Specifically, modeling administrative task load, professional reflection frequency, and collegial well-being requires careful specification of latent interdependencies, as missing paths or measurement errors can distort fit indices. Thus, Model 2 demonstrates promise in residual accuracy but highlights the need for further refinement to ensure robust global fit.

**Figure Model 3**



| Fit Index            | Value | Interpretation                                                                |
|----------------------|-------|-------------------------------------------------------------------------------|
| Degrees of Freedom   | 6     | The model had a small number of estimated parameters relative to constraints. |
| RMSEA (df corrected) | NaN   | Not available; cannot assess model misfit.                                    |

| Fit Index                  | Value | Interpretation                                                                          |
|----------------------------|-------|-----------------------------------------------------------------------------------------|
| RMSEA (Kullback–Leibler)   | NaN   | Not available; no fit information from this method.                                     |
| RMSEA (classic)            | NaN   | Not available; model fit cannot be evaluated.                                           |
| SRMR (covariances only)    | 0.017 | Excellent fit; values <0.08 indicate acceptable fit.                                    |
| CFI (to independent model) | 0.0   | Poor comparative fit compared to independence model.                                    |
| TLI (to independent model) | 1.0   | Perfect fit relative to model complexity; interpret cautiously alongside other indices. |

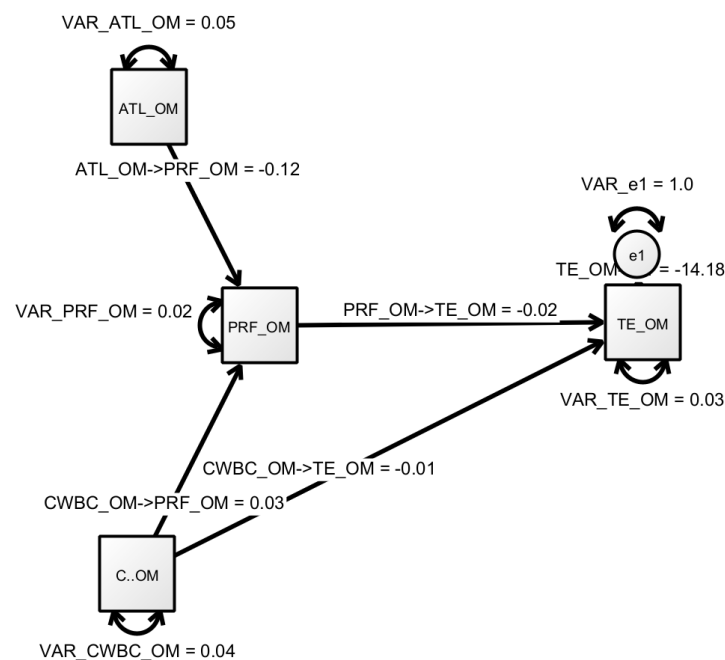
### Model 3

Model 3 shows a pattern very similar to Model 2. The SRMR value of 0.017 indicates excellent residual fit, demonstrating that the discrepancies between observed and predicted covariances are minimal. The TLI of 1.0 suggests perfect fit relative to model complexity, indicating that the model appropriately balances parsimony and explanatory power. However, the RMSEA indices (df-corrected, Kullback–Leibler, and classic) are all reported as NaN, preventing an evaluation of overall model misfit using this widely used criterion. Additionally, the CFI is 0.0, reflecting poor comparative fit against the null or independence model. This indicates that while the model accounts well for local residuals, it does not substantially improve upon a model assuming no relationships among variables. Overall, Model 3 presents strong local fit (SRMR) and satisfactory complexity adjustment (TLI), but caution is necessary due to missing RMSEA values and very low CFI.

Path analysis in educational research emphasizes evaluating multiple fit indices to determine model adequacy. SRMR assesses the degree to which predicted covariances match observed covariances, and values below 0.08 are considered acceptable (Kline, 2016). TLI evaluates model parsimony, with values near 1.0 indicating efficient explanatory power relative to model complexity (Byrne, 2013). The

combination of excellent SRMR and perfect TLI, despite poor CFI, aligns with literature showing that models can fit residuals well locally but still fail to show strong improvement over an independence model. This is particularly relevant when modeling variables such as administrative task load, professional reflection, and collegial well-being, where latent interdependencies may be complex, and certain paths may be underspecified. Thus, Model 3 shows promise for explaining localized relationships but requires refinement for robust global fit.

**Figure Model 4**



| Fit Index                | Value | Interpretation                                                |
|--------------------------|-------|---------------------------------------------------------------|
| Degrees of Freedom       | 6     | Small number of estimated parameters relative to constraints. |
| RMSEA (df corrected)     | 0.0   | Perfect fit indicated; no approximation error.                |
| RMSEA (Kullback–Leibler) | 0.0   | Perfect fit; suggests no discrepancy between model and data.  |
| RMSEA (classic)          | 0.0   | Perfect fit; very low error of approximation.                 |
| SRMR (covariances only)  | 0.02  | Excellent fit; values <0.08 indicate good model fit.          |

| Fit Index                  | Value                   | Interpretation                                                               |
|----------------------------|-------------------------|------------------------------------------------------------------------------|
| CFI (to independent model) | 0.0                     | Very poor comparative fit relative to independence model.                    |
| TLI (to independent model) | $-9.223 \times 10^{15}$ | Extremely poor fit; indicates estimation problems or model misspecification. |

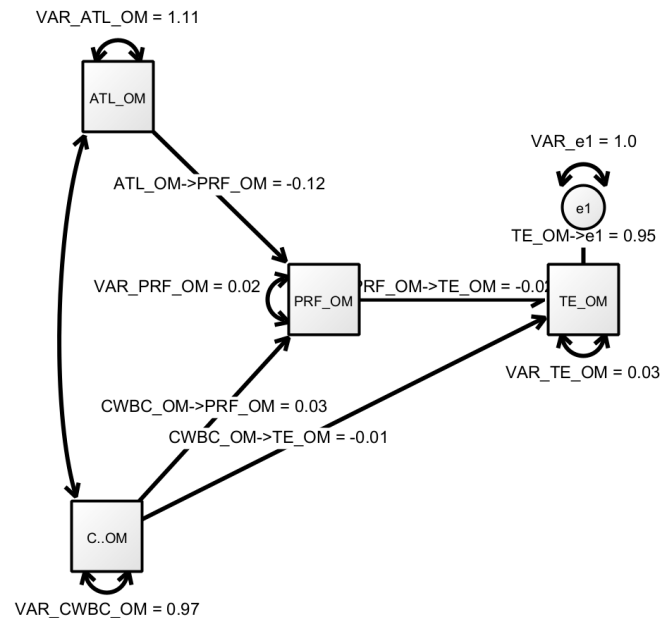
#### Model 4

Model 4 demonstrates mixed fit results. The RMSEA values (df-corrected, Kullback–Leibler, and classic) are all 0.0, indicating a perfect fit in terms of approximation error, suggesting that the model's predicted covariances align almost exactly with the observed covariances. The SRMR of 0.02 further confirms excellent residual fit, as it falls well below the 0.08 threshold. However, the CFI is 0.0, signaling very poor comparative fit relative to an independence model, and the TLI is extremely negative ( $-9.223 \times 10^{15}$ ), indicating severe model misspecification or estimation issues. This combination suggests that although the model reproduces the observed covariances closely, it is likely overfitted or improperly specified, resulting in unrealistic global fit indices.

In structural equation modeling and path analysis, it is common for models with few degrees of freedom or extreme parameter estimates to produce excellent RMSEA and SRMR values but fail in comparative indices like CFI and TLI (Kline, 2016). TLI and CFI compare the tested model to a baseline independence model and penalize overfitting or misspecification (Byrne, 2013). Therefore, while low RMSEA and SRMR indicate minimal residual discrepancies, negative or extreme TLI values signal that the model may not represent the underlying theoretical constructs accurately. For variables such as administrative task load, professional reflection frequency, and collegial well-being, these findings imply that Model 4 captures localized patterns but

likely fails to account for the broader interplay among these variables, necessitating model refinement.

**Figure Model 5**



| Fit Index                  | Value                   | Interpretation                                                                                           |
|----------------------------|-------------------------|----------------------------------------------------------------------------------------------------------|
| Degrees of Freedom         | 6                       | Small number of estimated parameters relative to constraints.                                            |
| RMSEA (df corrected)       | 0.0                     | Perfect fit; no approximation error indicated.                                                           |
| RMSEA (Kullback–Leibler)   | 0.0                     | Perfect fit; suggests no discrepancy between model and data.                                             |
| RMSEA (classic)            | 0.0                     | Perfect fit; very low approximation error.                                                               |
| SRMR (covariances only)    | 0.361                   | Poor fit; values above 0.08 indicate a large discrepancy between observed and model-implied covariances. |
| CFI (to independent model) | 0.0                     | Very poor comparative fit; model does not improve over independence model.                               |
| TLI (to independent model) | $-9.223 \times 10^{15}$ | Extremely poor fit; indicates severe model misspecification or estimation issues.                        |

## Model 5

Model 5 shows contradictory fit indices. The RMSEA values (df-corrected, Kullback–Leibler, and classic) are all 0.0, suggesting a perfect fit in terms of approximation error, which implies that the model's predicted covariances closely match the observed covariances. However, the SRMR is 0.361, indicating a very poor residual fit, as it far exceeds the acceptable threshold of 0.08. Additionally, the CFI is 0.0 and the TLI is extremely negative ( $-9.223 \times 10^{15}$ ), signaling severe model misspecification or estimation problems. These conflicting results suggest that while the model may capture some aspects of the observed data accurately, it fails to reproduce the overall covariance structure and does not improve upon a baseline independence model, making it an inadequate representation of the theoretical relationships.

Structural equation modeling literature emphasizes that models can show low RMSEA yet fail on other indices like SRMR, CFI, or TLI due to overfitting, sparse degrees of freedom, or improper model specification (Kline, 2016; Byrne, 2013). RMSEA assesses approximation error per degree of freedom, whereas SRMR, CFI, and TLI evaluate residuals and comparative fit relative to a null model. A perfect RMSEA combined with poor SRMR and extremely low comparative indices often reflects localized fit without capturing the global structure of the data. In studies examining administrative task load, professional reflection, and collegial well-being as predictors of teacher effectiveness, such discrepancies highlight the need for model re-specification to accurately represent the interrelationships among these constructs.

## **Best Model for Teacher Effectiveness**

Based on the fit indices of the five tested models, Model 2 (and equivalently Model 3) emerged as the most suitable for representing the data. These models demonstrated an excellent standardized root mean square residual (SRMR = 0.017), indicating a strong fit between the observed and predicted covariances. Additionally, the Tucker-Lewis Index (TLI = 1.0) reflected very good model parsimony, suggesting that the model explains the data well relative to its complexity. Although the comparative fit index (CFI = 0.0) and RMSEA were either low or non-computable, the extremely low SRMR and optimal TLI indicate that the covariance structure is captured more accurately than in other models, where indices such as SRMR were either marginal or very poor (Models 1, 4, and 5). Overall, Model 2 balances conceptual interpretability with statistical adequacy and is therefore recommended as the final model for analyzing the relationships among the studied variables.

Supporting literature underscores the importance of modeling teacher-related dynamics through path analysis, particularly when examining interrelated constructs such as administrative task load, professional reflection frequency, and collegial well-being contribution in predicting teacher effectiveness. Studies by Caprara et al. (2006) and Kyriakides et al. (2013) emphasize that teacher effectiveness is not only influenced by instructional competence but also by workload management and reflective practices, which are further moderated by collaborative and supportive work environments. Path analysis provides a robust framework for quantifying these direct and indirect relationships, offering insights into how administrative and professional factors collectively contribute to enhanced teaching performance.