Teachers’ motivation and conceptual understanding for students in Public elementary schools

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ABSTRACT

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| --- |
| This study aimed to determine the teacher’s motivation and conceptual understanding of students in public elementary schools. This study used the non-experimental quantitative research design utilizing the correlational method. The respondents of this study were 135 teachers in public elementary schools using universal sampling. The data analysis utilized the mean, pearson-r and regression analysis. The findings revealed that the teachers' motivation for students in public elementary schools in terms of self-efficacy, active understanding strategies, understanding value, performance goal, and understanding of the environment were manifested oftentimes by the teachers. Moreover, their teacher’s conceptual understanding of students in terms of objective response and analysis and reasoning was manifested oftentimes by the teachers. It was found that there was a significant relationship between the teacher’s motivation and conceptual understanding for students in public elementary schools. It showed further that the domains of teacher’s motivation are significantly influenced by conceptual understanding for students in public elementary school. Based on the findings, the recommendations show that public school teachers may help the students to put the information in a logical order such that they can learn and understand the new concepts by relating them to the concepts they already know. This way, they can better grasp why a conceptual understanding is significant and how it can be applied in real situations. |

*Keywords*: Teachers’ motivation, Conceptual Understanding, Public Elementary Schools, Philippines

1. INTRODUCTION

Fostering student motivation is a challenging yet essential aspect of teaching that educators must carefully consider. Teachers often lead classes where students are engaged, motivated, and eager to learn, while in other cases, students may appear distracted, disinterested, and reluctant to participate (Mastul, 2024). Motivation varies from student to student, but established models provide useful frameworks for understanding and enhancing motivation in the classroom (Bower, 2019).

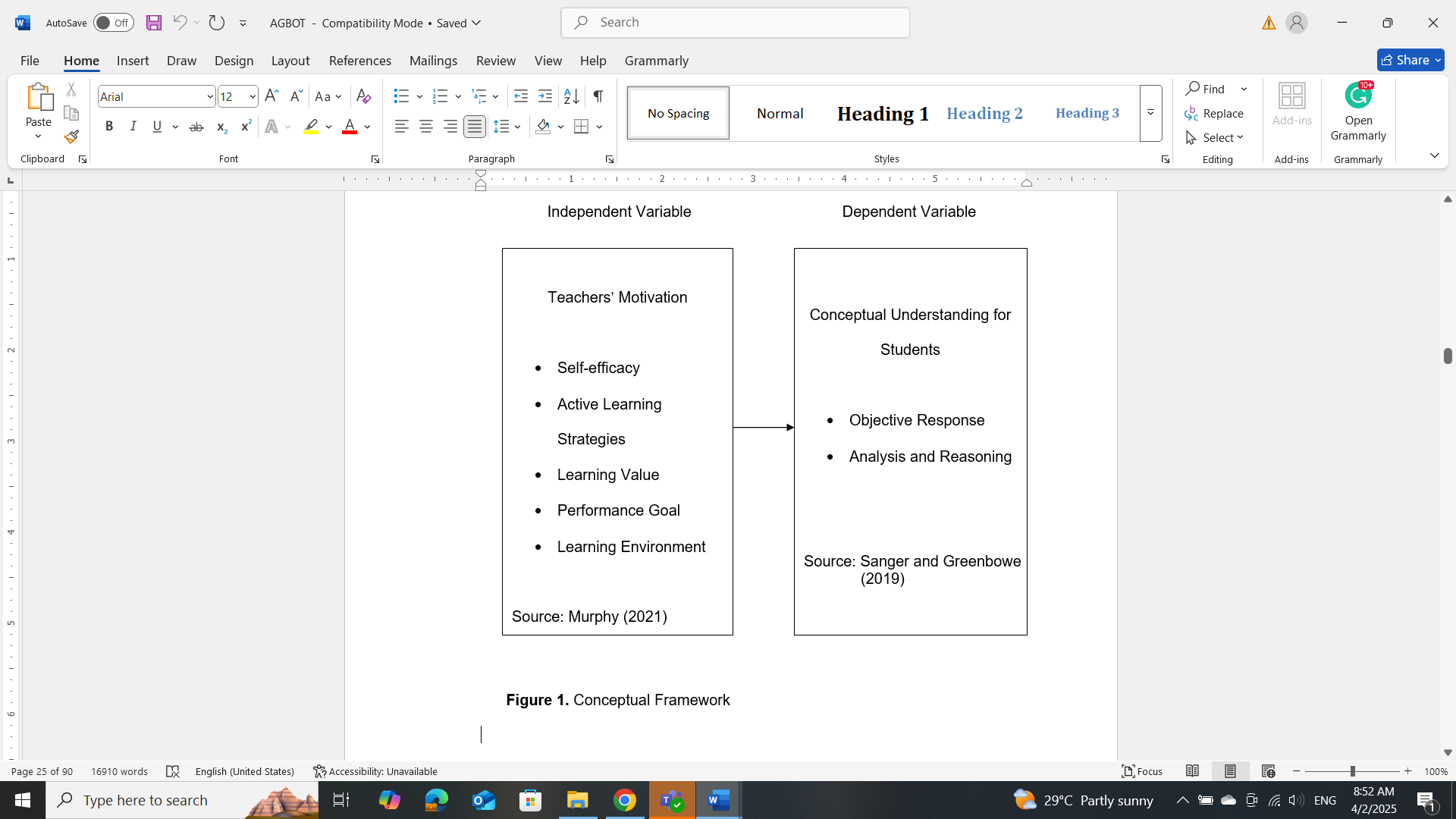
In Washington, D.C., in connection with students' academic performance, a researcher aimed to determine the levels of motivation and conceptual understanding among students enrolled in an education course. The findings were used to develop an instructional design tailored for online learning in higher education. This researcher-made instructional design was intended to improve student motivation and academic performance in education-related subjects (Almulla & Alamri, 2021).

Wardani et al. (2020) emphasized the crucial role of student motivation in education, highlighting its significance in promoting conceptual understanding. Several factors influence students' academic performance, including their backgrounds and school environments (Rafiq et al., 2020). Additionally, prior conceptual understanding has been found to impact students' future academic achievements significantly (Jacob et al., 2022).

In Malaysia, researchers have developed various teaching strategies and instructional designs to enhance conceptual understanding. Zain et al. (2022) found that class discussions incorporating higher-order thinking and guiding questions encouraged student participation. Models have also been widely adopted in education to aid students in conceptualizing the physical and chemical properties of substances (Lazenby et al., 2019).

In the Philippines, motivation plays a vital role in helping students maintain focus on their academic goals. Motivated students are less likely to be distracted and are better able to sustain attention over extended periods. They exhibit goal-oriented behaviors, take initiative, demonstrate resilience, harness their curiosity, and show respect for their work. Ultimately, they become more self-directed learners (Gumasing & Castro, 2023).

In Region XI, the constructivist approach is commonly used to encourage students to become active participants in the learning process. This approach enables learners to acquire new knowledge by building on their prior experiences (Lagrimas & Buenaventura, 2023). While intrinsic motivation is the ideal outcome, achieving this across all educational settings may not always be practical. Many required tasks are not inherently interesting or enjoyable for students. Instead, teachers can implement strategies that fulfill students’ basic psychological needs, helping to shift their motivation along the continuum toward more self-determined forms of learning. This approach leads to better academic outcomes (Alamri et al., 2020). This study aimed to determine the teachers’ motivation and conceptual understanding of students in public elementary schools.



**Figure 1:** Conceptual Framework of the Study

2. methodology

**2.1 Research Design**

This study employed the non-experimental quantitative research design utilizing the correlational method. This is appropriate since the objective of the study is to quantitatively determine the effects of the instructional design, anchored on the levels of teachers’ motivation and conceptual understanding for students in public elementary schools. Quantitative research design is defined as a research method used in various disciplines, including social sciences, psychology, economics, and market research. It aims to collect and analyze numerical data to answer research questions and test hypotheses (Pregoner, 2024)

Quantitative research design offers several advantages, including the ability to generalize findings to larger populations, the potential for statistical analysis and hypothesis testing, and the capacity to uncover patterns and relationships among variables. The correlational method investigates the association between two or more variables without engaging in their manipulation (Baguio & Baguio, 2025).

**2.2 Research Respondents**

The respondents of the study were the teachers in public elementary schools. There were 135 respondents in public elementary schools. They were selected by using universal sampling, which means all the population of the study was considered as respondents to get reliable data. This study was conducted in the school year 2023-2024.

**2.3 Research Instrument**

The instruments used in this study were the survey questionnaire on teachers’ motivation and conceptual understanding of students in public elementary schools. This instrument was constructed based on relevant studies and literature reviewed. Prior to the administration, the draft of this instrument was tested for face and content validity by the panel of experts in the field of Doctor of Educational Management. Based on their future comments and suggestions, revisions were made.

To test for reliability and validity, the instrument was tried out among school teachers in one separate school in the same district. Pilot testing was done on 30 teachers in one separate school. The instrument was found to be highly reliable, with a Cronbach’s Alpha result of .795. The respondents answered the 45-item questionnaire in a 5 subscales. The scoring was implemented in the following subscales.

**2.4 Data Gathering Procedure**

# The data was gathered through the following procedure: The researcher asked permission and endorsement from the Dean of the Graduate School of Rizal Memorial Colleges for the superintendent's approval. After the approval of the Dean, a request letter was submitted to the office of the Schools Division Superintendent. After the approval of the superintendent, an endorsement letter was submitted to the School Heads. A letter asking permission from the school heads was attached.

# After such, a schedule was made for the distribution of the test questionnaires for the pilot testing to find out the reliability and validity of the questionnaire. Hence, the explanation of the study and instructions for the tests were incorporated into the questionnaires. After the results of the pilot testing, a survey was conducted with all respondents.

# After this, the researcher went to retrieve all the questionnaires and ready for statistical treatment. After retrieving all the questionnaires, the data were tallied, tabulated, analyzed and interpreted based on the purpose of the study.

# 2.5 Data Analysis

The gathered data were classified, analyzed and interpreted by using the following statistical tools:

*Mean.* This was used to measure the level of teachers’ motivation and conceptual understanding for students in public elementary schools.

*Pearson-r.* This was used to determine the significant relationship between the level of teachers’ motivation and conceptual understanding for students in public elementary schools.

*Multiple Linear Regression Analysis*. This was used to determine the significant influence on the level of teachers’ motivation and conceptual understanding for students in public elementary schools.

Ethical Consideration:

This quantitative study adhered to strict ethical guidelines to safeguard the privacy and confidentiality of all participants. Before data collection, informed consent was obtained from each participant, who was thoroughly briefed on the study's objectives and the measures in place to ensure confidentiality. To maintain anonymity, no personally identifiable information was gathered, and participants were assigned a unique code for data analysis. The collected data were securely stored on encrypted servers, with access limited to the research team. The findings were presented in an aggregated form, ensuring that individual responses could not be traced back to any specific participant. Furthermore, statistical analyses were carried out in a manner that preserved the anonymity and protected the privacy of the respondents throughout the entire study

3. results and discussion

**3.1 Teachers’ Motivation in Public Elementary Schools**

Table 1. *Level of Teachers’ Motivation in Public Elementary Schools*

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Indicators | Mean  () | Descriptive Equivalent |
| 1 | self-efficacy | 3.26 | Moderate |
| 2 | active understanding strategies | 3.10 | Moderate |
| 3 | understanding value | 4.10 | High |
| 4 | performance goal | 3.38 | Moderate |
| 5 | understanding environment | 3.45 | High |
| Overall Mean | | **3.46** | High |
|  | |  |  |

Table 1 shows the level of teachers’ motivation for students in public elementary schools in terms of self-efficacy, active understanding strategies, understanding value, performance goal and understanding environment. The mean ratings of this indicator are as follows: self-efficacy 3.26 or moderate; active understanding strategies 3.10 or moderate; understanding value 4.10 or high performance goal 3.38 or moderate and understanding environment 3.45 or high. The overall mean rating of teachers’ motivation for students in public elementary schools in terms of self-efficacy, active understanding strategies, understanding value, performance goal and understanding environment is 3.46 or high.

This means that the level of teachers’ motivation for students in public elementary schools in terms of self-efficacy, active understanding strategies, understanding value, performance goal and understanding environment is manifested oftentimes by the teachers.

This indicates that the teachers’ motivation for students in public elementary schools in terms of self-efficacy, active understanding strategies, understanding value, performance goal and understanding environment shapes how students approach their studies, influences their academic success, and prepares them for the challenges of tomorrow. By fostering a motivated learning environment, teachers are not just teaching subjects; they are nurturing future thinkers, innovators, and leaders.

This finding aligns with Barkley and Major (2020), who emphasized that a motivated teacher is fundamental to a successful classroom. A highly engaged teacher fosters an environment where students are not merely present but actively involved—curious, eager, and inspired to learn. According to Nahid et al. (2023), motivation plays a critical role in education, serving as the driving force that energizes, directs, and sustains both teaching and learning. When teachers are motivated, they do more than deliver lessons; they ignite a passion for knowledge that can shape students’ lifelong learning journeys. Furthermore, motivation extends beyond individual effort. As Alipio (2020) noted, in an ever-evolving world where new challenges and opportunities constantly emerge, the ability to learn and adapt is essential. Motivated learners are better equipped to navigate these changes, fueled by an intrinsic desire for growth and resilience in the face of setbacks. Consequently, fostering teacher motivation not only enhances classroom engagement but also contributes to the broader development of adaptable and determined learners.

**3.2 Teachers’ Conceptual Understanding for Students in Public Elementary Schools**

Table 2. *Level of Teachers’ Conceptual Understanding for Students in Public Elementary Schools*

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Indicators | Mean  () | Descriptive Equivalent |
| 1 | objective response | 4.07 | High |
| 2 | analysis and reasoning | 4.19 | High |
| Overall Mean | | 4.14 | High |
|  | |  |  |

Table 2 presents the level of teachers’ conceptual understanding of students in public elementary school in terms of objective response and analysis and reasoning. The mean ratings of these indicators are as follows: physical and emotional well-being obtained a mean rating of 4.07 or high; and social and spiritual well-being gained a mean rating of 4.91 or high.

The overall mean rating of teachers’ conceptual understanding for students in public elementary schools in terms of objective response and analysis and reasoning is 4.14 or high. This means that the level of teachers’ conceptual understanding for students in public elementary school in terms of objective response and analysis and reasoning is manifested by the teachers oftentimes.

This indicates that teachers’ conceptual understanding of students in public elementary schools in terms of objective response and analysis and reasoning is essentially about learning more than isolated facts; it is about understanding the relationships between those facts and having them arranged correctly.

This finding aligns with Hansen (2023), who emphasized that conceptual understanding enables students to grasp the underlying principles of a subject rather than merely memorizing isolated facts. When students develop conceptual understanding, they recognize the significance of issues and their applications in various contexts. According to Wu et al. (2021), one effective way to foster conceptual understanding is through active exploration, such as drawing and measuring. After obtaining their answers, students can be encouraged to estimate dimensions to assess the accuracy of their predictions. This hands-on approach is just one of many strategies that promote deeper conceptual learning.

**3.3 Significant Relationship Between Shared Justice Leadership and Digital Access in a New Normal among Public Elementary School Teachers**

Table 3. *Significant Relationship Between Shared Justice Leadership and Digital Access in a New Normal among Public Elementary School Teachers*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Variables** | **Mean** | **SD** | **R** | **R²** | **Degree of Relationship** | **p-value** | **Decision** |
| Shared Justice Leadership | 4.17 | 0.70 |  |  |  |  |  |
|  |  |  | 0.52 | 0.27 | Moderate | 0.000 | Reject Ho1 |
| Digital Access | 4.19 | 0.72 |  |  |  |  |  |

Table 3 presents the significant relationship teachers’ motivation and conceptual understanding for students in public elementary schools with an overall computed r-value of .063, with equivalent tabular value 0.059 at α 0.05 of high correlation significance set in this study. Since the overall computed value is much higher than the tabular value. This indicates that the null hypothesis is hereby rejected and it could be stated therefore, that there is a significant relationship between teachers’ motivation and conceptual understanding for students in public elementary school. This implies that the higher the result teachers’ motivation for students in public elementary schools, the better their conceptual understanding for students in public elementary school.

However, the finding of the study is supported by the concepts of Bonghawan and Macalisang (2024) stated that teachers’ motivation for students beyond the classroom, motivation empowers children to set and pursue their goals, build resilience, and develop a strong sense of self-efficacy. This finding also aligns with the study of Petersen et al. (2020), who emphasized that achieving conceptual understanding requires active learner participation. When conceptual understanding is not prioritized, teachers often focus on explaining and demonstrating methods while emphasizing facts and procedures. In such cases, students must pay close attention, rigorously practice the techniques, and seek clarification when concepts remain unclear. Similarly, Chiles (2023) highlighted that the roles of teachers and students shift significantly when the focus is on conceptual understanding. Instead of simply delivering information, teachers should pose thought-provoking questions and assign tasks that encourage students to grasp the deeper meaning behind concepts. As a result, students are challenged to navigate the cognitive struggle of understanding and applying these concepts across different contexts.

**3.4. Domains of Shared Justice Leadership that Significantly Influence Digital Access in a New Normal among Public Elementary School Teachers**

**Table 4.** Domains of Shared Justice Leadership that Significantly Influence Digital Access in a New Normal among Public Elementary School Teachers

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Model | Sum of Squares | Degrees of Freedom | Mean Square | F | Sig |
| Regression Residual Total | 56.3797  513.311  545.111 | 3  132  135 | 56.009  11.5847 | .598 | 0.003 |
|  | | | | | |

Note: Significance when P < 0.05 (2T)

***Table 5.*** *Teachers’ Motivation*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Teachers’ Motivation | | | | | |
| Conceptual  Understanding  (Indicators) | | *B* | β | *t* | *Sig.* |
| objective response | self-efficacy | 078 | -059 | -.506 | 0.002 |
| analysis and reasoning | active understanding strategies | .017 | .015 | .128 | 0.014 |
|  | understanding value | .219 | .207 | -1.810 | 0.004 |
|  | performance goal | .165 | .188 | 1.573 | 0.002 |
|  | understanding environment | .077 | .058 | -.506 | 0.000 |
| R | .602 |  |  |  | 0.010 |
| R2 | .362 |  |  |  |  |
| F | .598 |  |  |  |  |
| Ρ | .002 |  |  |  |  |

Table 4 presents the regression analysis examining how different domains of shared justice leadership—self-efficacy, active understanding strategies, understanding value, performance goal, and understanding environment—significantly influence digital access in the new normal among public elementary school teachers. The regression model demonstrates that these five domains positively contribute to digital access, explaining 36.2% of the variance (R² = 0.362) with a correlation coefficient of R = 0.602, indicating a moderate to strong relationship between shared justice leadership and digital access.

Among the predictors, understanding value (B = 0.219) has the strongest influence, suggesting that when teachers recognize the importance and benefits of technology in education, they are more motivated to integrate digital tools into their teaching practices. Performance goal (B = 0.165) follows, highlighting that teachers who set clear objectives for digital learning are more likely to seek professional development and utilize technology effectively. Self-efficacy (B = 0.078) also plays a significant role, indicating that teachers who feel confident in their technological abilities are more inclined to adopt digital tools in their instruction. Similarly, understanding environment (B = 0.077) reinforces the importance of a supportive school setting in facilitating digital access. Lastly, active understanding strategies (B = 0.017), while contributing to digital access, show the least influence among the five domains.

This finding aligns with the research of Gündüz (2024), who emphasized that shared justice leadership fosters equitable digital access by empowering teachers to integrate technology effectively into their instructional practices. Similarly, Ngqunguza et al. (2024) highlighted that leadership approaches grounded in fairness and inclusivity enhance teachers’ willingness to adopt digital tools by providing institutional support, training, and resources. Their study further revealed that when school leaders actively address digital disparities, educators feel more confident in using technology for teaching, learning, and professional development. Additionally, Theoharis (2024) found that schools that prioritize shared justice leadership ensure the fair distribution of digital resources, preventing technological gaps that could hinder instructional effectiveness.

4. FINDINGS

This chapter presents the summary, conclusions and recommendations based on the findings of this study.

The following are the summarized findings of this study.

The level of teachers’ motivation for students in public elementary schools in terms of self-efficacy, active understanding strategies, understanding value, performance goal and understanding environment is 3.46 or high. This means that the level of teachers’ motivation for students in public elementary schools in terms of self-efficacy, active understanding strategies, understanding value, performance goal and understanding environment is manifested oftentimes by the teachers.

The level of teachers’ conceptual understanding for students in public elementary school in terms of objective response and analysis and reasoning is 4.14 or high. This means that the level of teachers’ conceptual understanding for students in public elementary school in terms of objective response and analysis and reasoning is manifested by the teachers oftentimes.

Since the overall computed value is much higher than the tabular value. This indicates that the null hypothesis is hereby rejected and it could be stated, therefore, that there is a significant relationship between teachers’ motivation and conceptual understanding for students in public elementary school. This implies that the higher the result teachers’ motivation for students in public elementary schools, the better conceptual understanding for students in public elementary schools.

Moreover, the overall computed value is very much higher than the tabular value. This indicates that the null hypothesis is rejected and it could be stated, therefore, that the domains of teachers’ motivation significantly influence the conceptual understanding of students in public elementary school. This implies that the higher the result of teachers’ motivation for students in public elementary schools, the improved conceptual understanding for students in public elementary schools.

**5. CONCLUSIONS**

Based on the findings obtained in this study, the following conclusions were drawn:

It is concluded in this study that, the level of teachers’ motivation for students in public elementary schools in terms of self-efficacy, active understanding strategies, understanding value, performance goal and understanding environment is manifested oftentimes by the teachers.

It is clinched in this study that, the level of teachers’ conceptual understanding for students in public elementary schools in terms of objective response and analysis and reasoning is manifested by the teachers oftentimes.

It is established in this study that there is a significant relationship between teachers’ motivation and conceptual understanding of students in public elementary schools. This implies that the higher the result teachers’ motivation for students in public elementary schools, the better conceptual understanding for students in public elementary schools.

It is determined in this study that, the overall computed value in the domains of teachers’ motivation is significantly influenced by conceptual understanding for students in public elementary schools. This implies that the higher the result of teachers’ motivation for students in public elementary schools, the improved conceptual understanding for students in public elementary schools.

The findings of this study, which assess the significant influence of teachers’ motivation on their conceptual understanding, align with motivation theory and its key principles. Motivation theory identifies self-efficacy, active understanding strategies, the value of education, individual understanding goals, performance goals, and the learning environment as essential factors that influence motivation. These elements shape an individual's drive to achieve specific outcomes and play a crucial role in the teaching-learning process. Understanding these motivational factors can help educators enhance their conceptual understanding and improve their instructional practices.

Moreover, Bandura (1997) defined perceived self-efficacy as an individual’s belief in their ability to organize and execute the actions necessary to achieve desired goals. This confidence affects cognitive, motivational, and emotional processes, influencing the strategies teachers use in their classrooms. Teachers with high self-efficacy are more likely to implement effective teaching strategies, adapt to new educational challenges, and continuously refine their conceptual understanding to improve student learning outcomes. Conversely, low self-efficacy may limit a teachers’ ability to engage with new instructional approaches and deepen their subject knowledge.

Furthermore, research suggests that a lack of awareness of one’s own cognitive capacities can hinder the ability to adopt new understanding strategies. Teachers who are highly motivated and confident in their abilities are more likely to engage in continuous learning, explore innovative teaching methods, and refine their conceptual understanding over time. To enhance teachers’ conceptual understanding, it is essential to foster an open and problem-oriented approach to professional development, allowing educators to engage with new pedagogical theories and practices actively.

The concept of active understanding has been explored in various ways depending on the context, but it generally refers to the thought processes teachers engage in when interacting with educational content, peers, or professional development activities. When teachers actively seek to understand and apply new knowledge, they strengthen their conceptual foundations, leading to more effective instruction. By integrating motivation-driven professional learning strategies, schools can create supportive environments that encourage teachers to deepen their conceptual understanding and enhance their teaching effectiveness.

**6. RECOMMENDATIONS**

The author of this study would like to recommend the following:

It is recommended in this study that the teachers may encourage students and teach them the responsibility to get them involved in the classroom. Make participating fun by giving each student a job to do. Give students the responsibility of tidying up or decorating the classroom. Assign a student to erase the blackboard or pass out materials. Improving these gray areas results in the reliability and generalizability of the results in teachers’ motivation and conceptual understanding for students in public elementary schools.

It is recommended in this study that the teachers should help the students to put the information in a logical order such that one can learn and understand the new concepts by relating them to the concepts they already know. This way they better grasp why a teachers’ motivation and conceptual understanding for students in public elementary schools is significant and how it can be applied in real situations.

It is suggested in this study that the teachers may explain teachers’ motivation and conceptual understanding for students in public elementary schools can be explained as an integrated understanding of important concepts. That is, when one learns and focuses on understanding vital concepts instead of just understanding facts, the method is called conceptual understanding. It involves students engaging in quality understanding experiences with key concepts and ideas rather than using the traditional methods of understanding topics.

Further study may be conducted to verify the association of teachers’ motivation and conceptual understanding for students in public elementary schools to the academic performance of students, which encourages understanding rather than memorization, which would be retained for longer.

Ethical Approval:

The researcher asked permission and endorsement from the Dean of the Graduate School of Rizal Memorial Colleges for the superintendent's approval. After the approval of the Dean, a request letter was submitted to the office of the Schools Division Superintendent. After the approval of the superintendent, an endorsement letter was submitted to the School Heads.

Consent:

Before data collection, informed consent was obtained from each participant,

**Disclaimer (Artificial intelligence)**

The author(s) hereby declare that generative AI technologies have been used during the writing and editing of this manuscript. The details of the AI usage are as follows:

1.Grammarly: Used for grammar and spellchecking, as well as suggestions for improving sentence structure and overall clarity.

2.Quillbot: Employed for paraphrasing and refining sentence flow to enhance readability and coherence

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