

Peer Mentoring Skills of Teachers and Science Concept Comprehension Skills of Grade Six Learners

Wearl B. Pastor

Abstract. This study determined the significant relationship between the peer mentoring skills of teachers and science concept comprehension skills of the Grade 6 learners in Magsaysay South District, Division of Davao del Sur. This study used the non-experimental quantitative research design utilizing a descriptive-correlational method. The respondents of this study were 25 teachers and 78 students identified using purposive sampling. The data analysis utilized the mean and Pearson's r . The findings disclosed that the level of the peer mentoring skills of teachers in terms of establishing rapport, open communication, and professional growth was sometimes manifested. Moreover, the level of the science concept comprehension skills of the Grade 6 learners was fairly satisfactory. It was found that there was a weak relationship between the peer mentoring skills of teachers and the science concept comprehension skills of the grade 6 learners. Based on the findings, the teachers should actively engage in peer mentoring to enhance their professional growth and improve student learning outcomes. They can create a collaborative learning environment by fostering open communication, providing constructive feedback, and supporting colleagues in professional development.

KEY WORDS

1. Peer mentoring skills 2. science concept 3. comprehension skills
4. learners 5. teachers 6. Davao Del Sur

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1. Introduction

Understanding science has become more vital due to the breadth of contemporary societal issues. Imminent catastrophes in climate change, food scarcity, healthcare, and the proliferation of digital misinformation emphasize the necessity for a scientifically educated citizenry capable of making intelligent choices and strategies to tackle these issues. However, studies indicate that students have substantial difficulties with essential science literacy skills, such as understanding scientific concepts.

In the Davao region, educators articulate their concerns over the new pedagogical meth-

ods introduced by the revised curriculum. The commencement of the academic year presents challenges for students due to their learning gaps, making it challenging to figure out and understand all the topics that matter. Despite the clarity and comprehensibility of the pupils' materials, students are struggling with the concepts, and it has been determined that the desired science abilities and competences of learners are not at an optimal level (Javier, 2020).

The current literature on science concept comprehension abilities among Grade Six students indicates an interesting gap among studies

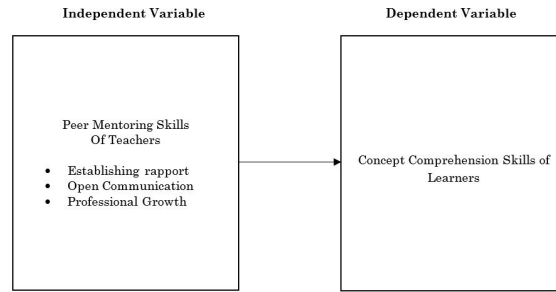


Fig. 1. Conceptual Framework

within the local setting of Davao del Sur. In addition, there is a significant lack of research examining the usefulness of different teaching approaches in enhancing the understanding of scientific concepts. One particularly striking research gap is the dearth of exploration into how peer mentoring could play a critical role in improving learners' grasp of science-related topics. Despite its potential, empirical evidence demonstrating the efficacy of peer mentoring as a means of learning in this area is limited. This research gap prompted the researcher to conduct a study to address this gap and offer significant insights into the effects of peer mentoring on enhancing learners' science comprehension skills.

The specific objectives of the study are the following: a.) to determine the level of peer mentoring skills of teachers in terms of establishing rapport, open communication, and professional growth. b.) to determine the level of the science concept comprehension skills of Grade 6 learners. c.) to determine if there is a significant relationship between the peer mentoring skills of teachers and the science concept comprehension skills of Grade 6 learners

The following hypothesis was tested at the .05 level of significance: a.) There is no significant relationship between teachers' peer mentoring skills and Grade 6 learners' science concept comprehension skills.

This study was valuable to various stakeholders, offering insights for school heads, par-

ticularly in Magsaysay South District, Division of Davao Del Sur, on enhancing teaching quality through teacher mentoring programs informed by the link between mentoring abilities and students' scientific understanding. It helped Grade Six teachers assess and improve their rapport-building, communication, and mentoring strategies to boost student engagement and academic performance. Learners benefited through improved comprehension and enthusiasm in science, while parents and the community gained from better student outcomes and stronger school-home collaboration. Lastly, the study provided a foundation for future research on mentorship, teaching efficacy, and student achievement.

The conceptual framework of this study was structured around the relationship between the Peer Mentoring Skills of teachers, identified as the independent variable, and the Concept Comprehension Skills of Grade Six learners, which served as the dependent variable. The Peer Mentoring Skills encompassed three key dimensions: establishing rapport, open communication, and professional growth. The study also aimed to investigate whether the cultivation of peer mentoring skills directly affected learners' comprehension and internalization of scientific concepts, hence assessing the existence of a meaningful relationship between these two variables.

2. Methodology

This section delineates the methodologies employed by the researcher to conduct the study. It encompassed the population and sampling, instrumentation, data source, and data analysis.

2.1. Research Design—This study utilized a descriptive-correlational research design to quantitatively assess teachers' Peer Mentoring Skills and Grade Six learners' science concept comprehension skills. The descriptive component focused on profiling these skills, while the correlational aspect examined their relationship. This approach allowed for identifying patterns without manipulating variables, offering a naturalistic and data-driven understanding of how mentoring may impact learning. Ultimately, the design supported the study's goals of enhancing instructional practices and informing curriculum development.

2.2. Research Ethics—The researcher adhered to RMC's ethical guidelines, ensuring informed consent, privacy, safety, and fairness throughout the study, which examined how teachers' peer mentoring skills affect Grade Six students' science concept comprehension in Magsaysay South District. Ethical safeguards included securing consent from students and parents, explaining procedures in child-friendly terms, and maintaining voluntary participation and anonymity. A supportive environment minimized risks and promoted honest responses. The researcher, a qualified Master's student, ensured rigor through expert guidance and access to academic resources. Data was securely stored per the Data Privacy Act of 2012, with findings shared through various platforms to uphold transparency and promote educational improvement.

2.3. Research Respondents/Participants—The study involved 25 Grade Six teachers and 78 Grade Six learners from a public elementary school in the Magsaysay South District, Division of Davao del Sur, selected through purposive sampling. Teachers were required

to have at least three years of experience and provide informed consent; their peer mentoring skills—specifically rapport-building, open communication, and promotion of professional growth—were assessed using a structured questionnaire. These skills were chosen for their impact on creating supportive learning environments in science education. Meanwhile, learners who had obtained parental consent were evaluated on their Science Concept Comprehension Skills. Purposive sampling was appropriate as it allowed the study to focus on participants most relevant to the research objectives within a single school setting (Creswell Creswell, 2023).

2.4. Research Instrument—The study utilized a two-part questionnaire to assess teachers' Peer Mentoring Skills and Grade Six learners' Science Concept Comprehension Skills. The first section evaluated teachers in three areas—Establishing Rapport, Open Communication, and Professional Growth—using items adapted from validated mentorship frameworks. A pilot test led to clarity revisions and a strong reliability score (Cronbach's $\alpha = .883$). The second section featured multiple-choice questions aligned with the Grade Six science curriculum, covering key concepts such as matter, energy, and ecosystems. It assessed both factual knowledge and scientific reasoning. Experts validated the instrument and pilot-tested it to ensure reliability, with a Cronbach's α of at least 0.70 deemed acceptable. Designed following DepEd Order No. 08, s. 2015, the tool enabled accurate, consistent data collection.

2.5. Data Gathering Procedure—A systematic process guided data collection and analysis to ensure the study's integrity. The researcher first secured formal approvals from

the Division Superintendent and the Graduate School Dean at Rizal Memorial Colleges, followed by authorization letters to school heads. The research instrument underwent expert content validation and pilot testing with a separate student group to ensure reliability and alignment with study objectives. Questionnaires were then personally administered in a supportive environment, allowing participants sufficient time to respond thoughtfully. Completed forms were promptly retrieved, securely stored, and verified for accuracy. Data analysis was conducted using SPSS, enabling the researcher to derive reliable and meaningful insights while maintain-

ing strict confidentiality protocols.

2.6. Data Analysis—The study employed various data analysis tools to ensure accurate evaluation of the findings. The mean was used to assess the level of peer mentoring skills among Grade Six teachers in establishing rapport, open communication, and professional growth. Percentages were used to evaluate the science concept comprehension skills of Grade Six learners. Finally, Pearson r was applied to determine the significance of the relationship between teachers' peer mentoring skills and learners' science comprehension levels.

3. Results and Discussion

This section delineates and discusses the research results. The discussion commenced with a descriptive analysis of teachers' peer mentoring skills in establishing rapport, open communication, and professional growth. The level of science concept comprehension skills of Grade 6 learners should also be determined. The final presentation emphasized the significant relationship between the peer mentoring skills of teachers and the science concept comprehension skills of the Grade 6 learners.

3.1. Level of Peer Mentoring Skills of Teachers—Table 1 presents a summary of the level of peer mentoring skills of teachers. These were evaluated regarding establishing rapport, open communication, and professional growth. The mean scores for each indicator were interpreted as follows: Establishing Rapport (3.32), which was described as moderate; Open Communication (3.08), which was described as moderate; and Professional Growth (3.10), which

was described as moderate. The overall rating garnered a mean score of 3.17, which was described as moderate. This highlighted that teachers' level of peer mentoring skills was sometimes manifested. Of the indicators, Establishing Rapport garnered the greatest mean rating of 3.32, which is categorized as moderate, whilst open communication recorded the lowest mean rating of 3.08, which is also categorized as moderate.

3.2. Level of Science Concept Comprehension Skills of Grade 6 Learners—Table 2 presents the data on the Science Concept Comprehension Skills of Grade 6 learners. The results indicate that their comprehension skills fall within the Fairly Satisfactory level, with a mean score of 77.46. This suggests learners exhibit limited understanding of scientific concepts, often demonstrating a surface-level grasp

of ideas. They require additional guidance, reinforcement, and instructional support to improve their comprehension, particularly when dealing with abstract or complex scientific principles. Misconceptions may arise, and their ability to apply scientific concepts independently is generally weak. Targeted interventions, such as differentiated instruction and hands-on activities, may be necessary to enhance their science understanding and critical thinking skills.

Table 1. Level of Peer Mentoring Skills of Teachers

No.	Indicators	Mean	Descriptive Equivalent
1	Establishing Rapport	3.32	Moderate
2	Open Communication	3.08	Moderate
3	Professional Growth	3.10	Moderate
Overall		3.17	Moderate

Note. Legend: 1.00–1.79 = Very Low, 1.80–2.59 = Low, 2.60–3.39 = Moderate, 3.40–4.19 = High, 4.20–5.00 = Very High.

Table 2. Level of Science Concept Comprehension Skills of Grade 6 Learners

Variable	N	Mean	Descriptive Equivalent
Science Concept Comprehension Skills	78	77.46	Fairly Satisfactory

Note. Legend: 75 below = Did Not Meet Expectations, 76–79 = Fairly Satisfactory, 80–84 = Satisfactory, 85–89 = Very Satisfactory, 90–100 = Outstanding.

3.3. *Significant Relationship between Peer Mentoring Skills of Teachers and Science Concept Comprehension Skills of Grade 6 Learners*—Table 3 showcases the data on the significant relationship between teacher peer mentoring skills and the science concept comprehension skills of Grade 6 learners in Magsaysay South District, Division of Davao Del Sur. The Pearson Product-Moment Correlation (Pearson r) was applied to the two variables to assess their significant relationship. The results appeared to have a computed p -value .042, lower than the .05 significance level. Thus, the null hypothesis was rejected since the value denotes a significant relationship.

Table 3. Significant Relationship between Peer Mentoring Skills of Teachers and Science Concept Comprehension Skills of Grade 6 Learners

Variables	r-value	Statistical Description	p-value	Decision
Peer Mentoring Skills of Teachers (x) and Science Concept Comprehension Skills (y)	0.20	Weak correlation	.042	Reject H_0

Furthermore, the computed r -value of 0.20 denotes the correlation between the two variables with which the hypothesis of a significant relationship was tested. The findings inferred a weak relationship between the peer mentoring skills of teachers and the science concept comprehension skills of the Grade 6 learners in Magsaysay South District, Division of Davao Del Sur. This suggests that while there is a relationship between the two variables, the strength of this connection is relatively low. In other words, improvements in teachers' peer mentoring skills are associated with only slight increases in stu-

dents' science comprehension skills. Additionally, the p-value of .042 is below the conventional significance level of 0.05, indicating that the relationship between the two variables is

statistically significant. This means that even though the correlation is weak, there is enough evidence to suggest that the observed relationship is not due to chance.

4. Conclusion and Recommendation

This study aimed to determine teachers' level of peer mentoring skills in terms of establishing rapport, open communication, and professional growth. Also, the level of science concept comprehension skills of Grade 6 learners should be determined. The final presentation emphasized the significant relationship between the peer mentoring skills of teachers and the science concept comprehension skills of the Grade 6 learners in Magsaysay South District, Division of Davao del Sur.

4.1. Findings—The following are the significant findings: On the level of peer mentoring skills of teachers in terms of establishing rapport, open communication, and professional growth. The findings confirm that teachers exhibit moderate peer mentoring skills, with open communication being the most evident aspect. Professional growth also ranked highly, reflecting their commitment to continuous learning. While establishing rapport had the lowest rating, it remains strong, indicating consistent peer trust and connection. This revealed that teachers exhibit strong peer mentoring skills, with open communication being the most evident aspect. Professional growth also ranked highly, reflecting their commitment to continuous learning. While establishing rapport had the lowest rating, it remains strong, indicating consistent peer trust and connection.

4.2. Conclusion—On the level of Science Concept Comprehension Skills of the Grade 6 learners: The findings highlight the strong values formation of intermediate learners, with moderate ratings across various aspects, including courtesy, friendship, family relationships, social conduct, time management, and healthy living. Friendship emerged as the most strongly manifested value, while avoiding violence received the lowest rating, indicating a need for further conflict resolution and nonviolent behavior reinforcement.

ior reinforcement.

The findings clearly inferred a weak relationship between teachers' peer mentoring skills and the science concept comprehension skills of the grade 6 learners in Magsaysay South District, Division of Davao del Sur. This suggests that while there is a relationship between the two variables, the strength of this connection is relatively low. In other words, improvements in teachers' peer mentoring skills are associated with only slight increases in students' science comprehension skills.

4.3. Recommendations—Based on the findings, it is recommended that the Department of Education institutionalize and strengthen peer mentoring programs across all levels to enhance teachers' rapport-building, communication, and professional growth. Training initiatives like LAC, MyPRE, and IPCRF should emphasize mentoring strategies that foster collaboration. School heads should promote a culture of continuous learning by implementing structured peer mentoring and collaborative teaching practices, focusing on improving rapport-building. Teachers are encouraged to actively engage in peer mentoring to support professional development and student learning, particularly through open communication and feedback. Students should value teacher mentorship by participating actively and embracing

collaboration to improve their science comprehension. Future researchers are advised to investigate the long-term impact of peer mentoring across various subjects and explore alternative mentoring models such as digital or cross-grade approaches.

5. References

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