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INSTRUCTIONAL SCAFFOLDING AND METACOGNITIVE STRATEGIES OF LANGUAGE TEACHERS IN PUBLIC SECONDARY SCHOOLS

Ruel T. Antonio
Rizal Memorial Colleges, Inc. Davao City

ABSTRACT

The primary objective of this study was to evaluate the predictive power of instructional scaffolding on the metacognitive strategies of language teachers in public secondary schools in Paquibato District, Davao City. A non-experimental quantitative research design using a descriptive-correlational technique was employed, and data were gathered from 106 language teachers selected through simple random sampling. Findings revealed that instructional scaffolding was generally moderate, with teachers sometimes demonstrating competencies in learning situation, visual scaffolding, question stems, and graphic organizers, while processing was often observed. Metacognitive strategies, on the other hand, were found to be high overall, with strong engagement in connecting, planning, and monitoring, although evaluating was only moderately practiced. Significant associations were identified between several scaffolding components, specifically visual scaffolding, question stems, graphic organizers, and processing, and teachers' metacognitive strategies, while learning situation had no significant relationship. Further analysis demonstrated that graphic organizers and processing significantly predicted metacognitive strategies, whereas other scaffolding domains did not exhibit predictive power. These results suggest that reflective, structured, and cognitively demanding scaffolding practices meaningfully contribute to enhancing teachers' metacognitive decision-making.

KEYWORDS: *Instructional Scaffolding, Metacognitive Strategies, Language Teachers, Public Secondary Schools, Regression*

INTRODUCTION

Language teachers today face increasing challenges in applying effective metacognitive teaching strategies, which are essential for helping learners plan, monitor, and evaluate their own learning processes. These challenges often arise from limited training, heavy workloads, and instructional pressures that prevent teachers from intentionally guiding learners in developing higher-order thinking. As a result, many language classrooms continue to rely on routine activities rather than reflective and strategic learning approaches. Because teachers struggle to integrate metacognitive practices consistently, their students miss opportunities to develop independence and deeper comprehension. Therefore, examining how instructional scaffolding predicts the metacognitive strategies of language teachers becomes important in public secondary schools.

In South Africa, many language teachers struggle to apply metacognitive strategies because school environments often lack structured support for reflective teaching. Durodolu and Ocholla (2017) emphasized that teachers' metacognitive skills are connected with search strategy, self-concept, and instructional decision-making. When teachers lack time and institutional support, they may find it difficult to guide learners in monitoring or regulating their learning processes. This situation may lead to stronger dependence on traditional instruction rather than reflective strategy instruction. Thus, metacognitive teaching becomes harder to sustain when support systems are weak.

In Dubai, language teachers also encounter challenges in applying metacognitive teaching strategies due to rapid technological changes and diverse classroom expectations. Moghazy (2021) noted that technology and innovation require teachers to adapt their approaches continuously, while Shaito (2019) emphasized teachers' concerns regarding critical thinking practices. These pressures may leave limited room for reflective strategy instruction. Teachers also need to balance examination demands with the need to develop learners' self-monitoring and self-evaluating skills. Hence, many classrooms may still depend on teacher-centered routines instead of metacognition-focused practices.

In Vietnam, the difficulty of promoting metacognitive strategies is linked with instructional structures that often emphasize correct answers over reflective learning. Thuy (2020) described the importance of metacognitive awareness in using reading strategies, while Nguyen and Phung (2021) showed the relationship between metacognition and reading strategy use. These findings suggest that teachers need clear support in modeling planning, monitoring, and evaluating strategies. However, limited exposure to modern pedagogical training may make systematic implementation difficult. As a result, metacognitive instruction may remain inconsistent in language classrooms.

In the Philippines, especially in Metro Manila, language teachers struggle to incorporate metacognitive strategies because of large class sizes, multilingual learners, and heavy curriculum requirements. Daguay-James and Bulusan (2020) highlighted metacognitive strategies in reading English texts among ESL learners, while Santiago and Dagdag (2021) emphasized the relevance of metacognitive learning orientations in classroom achievement. These studies show that strategic learning is

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important, but classroom realities may restrict its consistent practice. Teachers often focus on content coverage, leaving less time for guided reflection. Therefore, instructional support that strengthens teacher metacognition remains necessary.

In the Davao Region and Paquibato District, language teachers face additional difficulties because of varied student proficiency levels, limited instructional resources, and diverse classroom contexts. Laud (2020) and Awal et al. (2019) point to language-related challenges in the region that may affect classroom instruction and learner engagement. Teachers may struggle to scaffold reflective thinking when foundational language skills are still developing. In geographically challenging areas, heavy workloads and limited materials may further reduce opportunities for structured metacognitive teaching. Hence, the local context requires evidence on which scaffolding practices support teachers' metacognitive strategies.

The research gap lies in the limited local quantitative evidence explaining how instructional scaffolding predicts the metacognitive strategies of language teachers in public secondary schools. Many studies discuss metacognition or scaffolding separately, but fewer studies identify which scaffolding domains significantly influence teachers' metacognitive behaviors in rural or marginalized settings. Methodologically, there is a need for a descriptive-correlational study that measures the level of both variables, tests their relationship, and determines the predictive power of specific scaffolding domains. Addressing this gap may help school leaders design focused professional development programs. It may also strengthen instructional practices that promote reflective, structured, and responsive language teaching.

This study is anchored on the Interactive-Constructive-Active-Passive Framework of Chi and Wylie (2014), the Cognitive Apprenticeship Theory of Collins et al. (1989), and the Cognitive Load Theory of Sweller (1988). The ICAP Framework explains that deeper learning occurs when learners engage constructively and interactively rather than passively. Cognitive Apprenticeship Theory explains how modeling, coaching, scaffolding, and gradual transfer of responsibility support learning. Cognitive Load Theory explains that well-designed scaffolds reduce unnecessary mental burden and help learners focus on important cognitive tasks. Together, these theories support the assumption that structured scaffolding practices can strengthen teachers' metacognitive strategies in language instruction.

The primary objective of this study was to evaluate the predictive power of instructional scaffolding on the metacognitive strategies of language teachers in public secondary schools in Paquibato District, Davao City. Specifically, the study determined the level of instructional scaffolding in terms of learning situation, visual scaffolding, question stems, graphic organizers, and processing; determined the level of metacognitive strategies in terms of connecting, planning, monitoring, and evaluating; determined the significant relationship between instructional scaffolding and metacognitive strategies; and identified which domains of instructional scaffolding significantly influenced the metacognitive strategies of language teachers.

The following hypotheses were tested at 0.05 level of significance:

H01:There is no significant relationship between instructional scaffolding and metacognitive strategies of language teachers.

H02:None of the domains of instructional scaffolding significantly influence the metacognitive strategies of language teachers.

METHODOLOGY

The methodology outlined the procedures used to conduct the study, including the research design, respondents, research instrument, data gathering steps, ethical safeguards, and statistical treatment. The study employed a non-experimental quantitative research design using a descriptive-correlational technique. This design was appropriate because the study gathered numerical data, described the level of instructional scaffolding and metacognitive strategies, and examined the strength and direction of their relationship without manipulating the school setting. The design also allowed the researcher to determine which scaffolding domains significantly predicted metacognitive strategies. Thus, it provided a systematic basis for drawing conclusions from the measured responses of language teachers.

Ethical safeguards were observed through proper permission and approval before data collection. The researcher secured endorsement from the Graduate School, permission from the concerned education authorities, and approval from the school heads before administering the survey questionnaire. Informed consent was obtained from the teacher-respondents, and participation was voluntary. The respondents were assured that their identities would be kept confidential, their responses would be used only for academic purposes, and they could withdraw from the study without penalty. The researcher also observed privacy, transparency, justice, adequacy of facilities, and respectful coordination with the school community throughout the conduct of the study.

The study was conducted in public secondary schools in Paquibato District, Davao City. The respondents were 106 language teachers selected from a total population of 143 teachers using Slovin's formula. Simple random sampling was used so that every qualified teacher had an equal chance of being selected. The respondents were public secondary school teachers who were teaching English, serving as full-time teachers, and had at least three years of teaching experience. These inclusion criteria ensured that the respondents had sufficient classroom exposure and contextual knowledge to provide reliable responses on instructional scaffolding and metacognitive strategies.

The researcher used adapted and modified survey questionnaires to gather the needed data. The first part measured instructional scaffolding through five domains, namely learning situation, visual scaffolding, question stems, graphic organizers, and processing. This instrument contained 25 statements and obtained a Cronbach alpha of 0.902, described as excellent. The

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second part measured metacognitive strategies through four domains, namely connecting, planning, monitoring, and evaluating. This instrument contained 20 statements and obtained a Cronbach alpha of 0.945, also described as excellent, indicating high internal consistency.

Both instruments used a five-point Likert scale interpreted as follows: 4.20-5.00, very high; 3.40-4.19, high; 2.60-3.39, moderate; 1.80-2.59, low; and 1.00-1.79, very low. Before implementation, the instrument was subjected to expert validation and reliability testing to ensure content appropriateness and consistency. The data gathering procedure began with securing the necessary clearances and permissions from the concerned offices. After approval was granted, the researcher coordinated with school heads regarding the schedule of questionnaire administration. The responses were checked, encoded, tabulated, and prepared for statistical treatment after retrieval.

The gathered data were analyzed using appropriate statistical tools. Mean was used to determine the level of instructional scaffolding and metacognitive strategies. Pearson product-moment correlation was used to determine the strength and direction of the relationship between the two variables. Regression analysis was used at the 0.05 level of significance to determine which domains of instructional scaffolding significantly influenced the metacognitive strategies of language teachers. These statistical treatments were aligned with the objectives and hypotheses of the study.

RESULTS AND DISCUSSION

Instructional Scaffolding. The results showed that instructional scaffolding of language teachers in Paquibato District, Davao City was moderate overall (M = 3.28), indicating that scaffolding practices were sometimes evident in language instruction. Among the domains, processing obtained the highest mean (M = 3.42), followed by learning situation (M = 3.32), visual scaffolding (M = 3.29), graphic organizers (M = 3.19), and question stems (M = 3.17). This means that teachers were more consistent in guiding learners to reflect, review, and check understanding, while the use of question stems and visual or organizational supports still needed further strengthening.

Table 1. Summary on Instructional Scaffolding of Language Teachers in Paquibato District, Davao City

Indicators	Mean	Descriptive Rating
Learning Situation	3.32	Moderate
Visual Scaffolding	3.29	Moderate
Question Stems	3.17	Moderate
Graphic Organizers	3.19	Moderate
Processing	3.42	High
Overall	***3.28***	***Moderate***

The moderate result suggests that instructional scaffolding was present but not yet consistently maximized in daily teaching practice. Processing was the strongest domain, showing that teachers often supported learners in reviewing and reflecting on learning tasks. Question stems obtained the lowest mean, indicating that structured questioning may need more deliberate use in language classrooms. These findings are consistent with the view that scaffolding becomes effective when teachers provide timely, organized, and responsive support that helps learners move toward independence (Câmara et al., 2021; Chen, 2021).

Table 2. Instructional Scaffolding of Language Teachers in Terms of Learning Situation

Statement	Mean	Descriptive Rating
1. Giving step-by-step support during difficult lessons.	3.36	Moderate
2. Providing clear examples before asking learners to work.	3.13	Moderate
3. Modeling tasks to help learners understand new skills.	3.31	Moderate
4. Breaking lessons into smaller, manageable parts.	3.49	High
5. Guiding learners when they struggle with instructions.	3.31	Moderate
Mean	***3.32***	***Moderate***

Learning situation obtained a moderate rating, showing that teachers sometimes adjusted their support based on classroom needs and lesson demands. The highest item was breaking lessons into smaller, manageable parts, which means that teachers frequently simplified difficult lessons to guide learners more clearly. The lowest item was providing clear examples before asking learners to work, suggesting that modeling and example-giving may still be strengthened. This result supports the idea that scaffolding must be aligned with the learning situation so that learners receive appropriate guidance during complex tasks (Câmara et al., 2021; Barrot, 2018).

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Table 3. Instructional Scaffolding of Language Teachers in Terms of Visual Scaffolding

Statement	Mean	Descriptive Rating
1. Using pictures to explain new words or ideas.	3.46	High
2. Showing diagrams to help learners see important details.	3.23	Moderate
3. Presenting charts to support understanding of concepts.	3.24	Moderate
4. Displaying visual cues to guide learning tasks.	3.22	Moderate
5. Providing illustrations to make lessons easier to follow.	3.31	Moderate
Mean	***3.29***	***Moderate***

Visual scaffolding was rated moderate, indicating that teachers sometimes used pictures, diagrams, charts, visual cues, and illustrations to support understanding. The highest item was using pictures to explain new words or ideas, which shows that teachers commonly used visual materials to introduce concepts. However, displaying visual cues to guide learning tasks received the lowest rating, suggesting the need to expand the use of visual prompts during instruction. The finding agrees with studies showing that visual scaffolds reduce cognitive load and help learners understand language content more clearly (Mostafaei et al., 2019; Halwani, 2017).

Table 4. Instructional Scaffolding of Language Teachers in Terms of Question Stems

Statement	Mean	Descriptive Rating
1. Giving guided questions to start learners' thinking.	3.28	Moderate
2. Using simple question starters to support answers.	3.21	Moderate
3. Providing patterned questions to help learners respond.	3.08	Moderate
4. Asking scaffolded questions to build deeper ideas.	3.16	Moderate
5. Using repeated question frames to support language use.	3.14	Moderate
Mean	***3.17***	***Moderate***

Question stems obtained a moderate rating and recorded the lowest mean among the instructional scaffolding domains. The highest item was giving guided questions to start learners' thinking, while providing patterned questions to help learners respond received the lowest mean. This result implies that teachers sometimes used structured questions but may not have consistently applied repeated question frames that guide deeper responses. The finding supports the claim that question stems can stimulate higher-order thinking, reflection, and organized language responses when used deliberately (Chen & Yeh, 2019; Hanks, 2017).

Table 5. Instructional Scaffolding of Language Teachers in Terms of Graphic Organizers

Statement	Mean	Descriptive Rating
1. Using charts to organize learners' ideas.	3.33	Moderate
2. Providing mind maps to help break down content.	3.26	Moderate
3. Giving flowcharts to show steps or sequences.	3.12	Moderate
4. Presenting tables to compare important points.	3.23	Moderate
5. Using organizers to guide learners' writing tasks.	3.03	Moderate
Mean	***3.19***	***Moderate***

Graphic organizers were rated moderate, showing that teachers sometimes used charts, mind maps, flowcharts, tables, and writing organizers to help learners arrange ideas. The highest item was using charts to organize learners' ideas, while using organizers to guide learners' writing tasks received the lowest mean. This means that teachers may use organizers for simple idea arrangement but may need to strengthen their application in writing and higher-order language tasks. The result agrees with literature indicating that graphic organizers help learners process, store, retrieve, and connect information more effectively (Rahmat, 2020; Chu, 2020).

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Table 6. Instructional Scaffolding of Language Teachers in Terms of Processing

Statement	Mean	Descriptive Rating
1. Allowing learners time to think before answering.	3.24	Moderate
2. Guiding learners in reflecting on their completed tasks.	4.02	High
3. Helping learners review key ideas after activities.	3.39	Moderate
4. Asking learners to summarize what they learned.	3.16	Moderate
5. Supporting learners in checking their understanding.	3.31	Moderate
Mean	***3.42***	***High***

Processing was rated high, making it the strongest instructional scaffolding domain in the study. The highest item was guiding learners in reflecting on their completed tasks, which indicates that teachers often encouraged reflection after activities. The lowest item was asking learners to summarize what they learned, suggesting that summarizing may still need more consistent classroom use. The finding supports the view that processing-based scaffolding helps learners manage cognitive demands and supports teachers in guiding reflection, review, and understanding (Hartsuiker & Moors, 2017; Di Carlo, 2017).

Metacognitive Strategies. The results showed that metacognitive strategies of language teachers were high overall (M = 3.51), indicating that teachers often practiced reflective instructional decision-making. Among the domains, monitoring obtained the highest mean (M = 3.85), followed by connecting (M = 3.49), planning (M = 3.40), and evaluating (M = 3.30). These results suggest that teachers were highly engaged in checking learners' understanding, observing responses, linking lessons, and setting goals, although evaluation of lesson effectiveness was less consistent.

Table 7. Summary on Metacognitive Strategies of Language Teachers in Paquibato District, Davao City

Indicators	Mean	Descriptive Rating
Connecting	3.49	High
Planning	3.40	High
Monitoring	3.85	High
Evaluating	3.30	Moderate
Overall	***3.51***	***High***

The high result indicates that language teachers generally demonstrated reflective awareness in planning and managing instruction. Monitoring emerged as the strongest domain, showing that teachers frequently checked learner progress and adjusted strategies during activities. Evaluating was the lowest and only moderate, meaning that teachers were less consistent in judging lesson effectiveness after instruction. These findings align with the view that metacognitive strategies help teachers plan, monitor, and evaluate instruction to make learning more responsive and evidence-based (Perry et al., 2019; Soodla et al., 2017).

Table 8. Metacognitive Strategies of Language Teachers in Terms of Connecting

Statement	Mean	Descriptive Rating
1. Linking new lessons to learners' past knowledge.	3.74	High
2. Relating concepts to real-life situations.	3.52	High
3. Connecting ideas across different language skills.	3.29	Moderate
4. Using examples that tie lessons to learners' experiences.	3.48	High
5. Building relationships between current and previous topics.	3.43	High
Mean	***3.49***	***High***

Connecting was rated high, showing that teachers often linked new lessons with learners' prior knowledge, real-life situations, language skills, experiences, and previous topics. The highest item was linking new lessons to learners' past knowledge, which suggests that teachers valued continuity in learning. The lowest item was connecting ideas across different language skills, indicating that integration across reading, writing, speaking, and listening may still be improved. The finding supports the idea that metacognitive connecting strengthens lesson coherence and helps learners form meaningful relationships among concepts (Perry et al., 2019; Langdon et al., 2019).

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Table 9. Metacognitive Strategies of Language Teachers in Terms of Planning

Statement	Mean	Descriptive Rating
1. Setting clear goals before starting the lesson.	4.10	High
2. Choosing strategies that match learners' needs.	3.37	Moderate
3. Preparing steps to guide learners through activities.	3.12	Moderate
4. Organizing tasks from simple to difficult.	3.31	Moderate
5. Selecting materials that support the lesson plan.	3.09	Moderate
Mean	***3.40***	***High***

Planning was rated high, indicating that teachers often prepared goals, strategies, steps, tasks, and materials before instruction. Setting clear goals before starting the lesson was the highest item, showing that teachers frequently began instruction with defined learning directions. Selecting materials that support the lesson plan was the lowest item, suggesting that instructional material preparation may still need improvement. The result supports the view that planning helps teachers transform professional knowledge into organized, learner-centered instructional actions (Iqbal et al., 2021; Yildiz & Akdag, 2017).

Table 10. Metacognitive Strategies of Language Teachers in Terms of Monitoring

Statement	Mean	Descriptive Rating
1. Checking learners' understanding during activities.	3.48	High
2. Adjusting strategies when learners show confusion.	4.05	High
3. Observing how learners respond to tasks.	4.19	High
4. Tracking learners' progress throughout the lesson.	4.09	High
5. Noticing when learners need extra support.	3.45	High
Mean	***3.85***	***High***

Monitoring obtained the highest rating among the metacognitive strategy domains. The highest item was observing how learners respond to tasks, while noticing when learners need extra support obtained the lowest rating but remained high. This indicates that teachers frequently watched learners' responses, tracked progress, and adjusted strategies when confusion appeared. The finding confirms that monitoring allows teachers to make timely instructional decisions and respond to learners' needs during the teaching-learning process (Perry et al., 2019; Huertas et al., 2017).

Table 11. Metacognitive Strategies of Language Teachers in Terms of Evaluating

Statement	Mean	Descriptive Rating
1. Reviewing the lesson to see what worked well.	3.42	High
2. Assessing if learning goals were met.	3.39	Moderate
3. Reflecting on which strategies helped learners most.	3.22	Moderate
4. Identifying areas for improvement in teaching.	3.29	Moderate
5. Judging the effectiveness of the overall lesson.	3.18	Moderate
Mean	***3.30***	***Moderate***

Evaluating was rated moderate, showing that teachers sometimes reviewed the effectiveness of their lessons and strategies after instruction. The highest item was reviewing the lesson to see what worked well, while judging the effectiveness of the overall lesson received the lowest mean. This suggests that teachers may reflect on specific lesson parts but may need to strengthen systematic evaluation of total instructional outcomes. The result supports the idea that evaluation-based metacognition is necessary for continuous improvement, evidence-based decisions, and stronger alignment between instruction and learner progress (Perry et al., 2019; Lee & Mak, 2018).

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Table 12. Relationship Between Instructional Scaffolding and Metacognitive Strategies of Language Teachers in Paquibato District, Davao City

Instructional Scaffolding	r-value	p-value	Decision
Learning Situation	0.161	0.100	Accept H0
Visual Scaffolding	0.226*	0.020	Reject H0
Question Stems	0.303*	0.002	Reject H0
Graphic Organizers	0.249*	0.010	Reject H0
Processing	0.418*	0.000	Reject H0
Overall Instructional Scaffolding	***0.410****	***0.000***	***Reject H0***

**Significant @ p<0.05*

The relationship results show that overall instructional scaffolding had a moderate, positive, and significant relationship with metacognitive strategies (r = 0.410, p = 0.000). Among the domains, processing showed the strongest significant relationship with metacognitive strategies, followed by question stems, graphic organizers, and visual scaffolding. Learning situation did not show a significant relationship because its p-value was greater than 0.05. These results imply that scaffolding practices requiring reflection, organization, and cognitive engagement are more strongly linked with teachers' metacognitive strategy use.

Table 13. Predictive Power of Instructional Scaffolding on the Metacognitive Strategies of Language Teachers in Paquibato District, Davao City

Instructional Scaffolding		***Metacognitive Strategies***				
		B	**Beta**	**S.E**	**p-value**	**Decisions**
Learning Situation		-.070	-.141	.061	.256	Accept H_0
Visual Scaffolding		.047	.089	.048	.333	Accept H_0
Question Stems		.109	.170	.069	.116	Accept H_0
Graphic Organizers		.143**	.227	.056	.012	Reject H_0
Processing		.200**	.401	.061	.001	Reject H_0
Adjusted R^2	= 0.236					
F-value	= 7.495**					
p-value	= 0.000					

Regression analysis revealed that graphic organizers and processing significantly predicted the metacognitive strategies of language teachers. Graphic organizers obtained B = 0.143, beta = 0.227, and p = 0.012, while processing obtained B = 0.200, beta = 0.401, and p = 0.001. Learning situation, visual scaffolding, and question stems were not significant predictors because their p-values exceeded 0.05. The adjusted R2 value of 0.236 indicates that the instructional scaffolding domains explained 23.6 percent of the variance in metacognitive strategies. The model was significant, F = 7.495, p = 0.000, showing that structured and reflective scaffolding practices meaningfully influence teachers' metacognitive strategies.

The findings support the ICAP Framework, Cognitive Apprenticeship Theory, and Cognitive Load Theory. Graphic organizers reflect structured cognitive support because they help arrange ideas, reduce confusion, and promote organized thinking. Processing also reflects deeper engagement because it requires learners and teachers to reflect, review, and check understanding. These results suggest that teachers become more metacognitive when scaffolding practices require organization, reflection, and active thinking. Therefore, professional development programs should emphasize scaffolding tools that promote deeper cognitive engagement rather than relying only on general classroom support.

CONCLUSIONS

Based on the findings, instructional scaffolding of language teachers in Paquibato District was generally moderate. This means that scaffolding practices were sometimes demonstrated in the teaching-learning process. Processing emerged as the strongest component, showing that teachers frequently guided learners in reflection, checking understanding, and reviewing ideas. However, learning situation, visual scaffolding, question stems, and graphic organizers were less consistently applied. Thus, varied scaffolding strategies need to be strengthened to provide more comprehensive instructional support.

Metacognitive strategies of language teachers were high overall. This indicates that teachers frequently engaged in connecting, planning, and monitoring during instruction. However, evaluating was only moderately observed, suggesting that teachers were less consistent in reviewing lesson effectiveness and assessing instructional outcomes after teaching. This conclusion implies that teachers already show strong reflective awareness but still need to enhance evaluative practices. Strengthening evaluation may lead to better instructional decisions and improved professional reflection.

Correlation results confirmed that instructional scaffolding was significantly related to metacognitive strategies. Visual scaffolding, question stems, graphic organizers, and processing were significantly associated with metacognitive

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strategies, while learning situation was not significant. This means that not all scaffolding practices contributed equally to teachers' metacognitive engagement. Scaffolds requiring deeper processing, organization, and reflection showed stronger connections with metacognitive strategies. Hence, cognitively demanding scaffolding approaches are more meaningful in shaping reflective language teaching.

Regression results confirmed that graphic organizers and processing significantly influenced the metacognitive strategies of language teachers. These findings indicate that structured and reflective scaffolding practices strengthen teachers' planning, monitoring, and instructional decision-making. In contrast, learning situation, visual scaffolding, and question stems did not show significant predictive power. The results support the ICAP Framework of Chi and Wylie, the Cognitive Apprenticeship Theory of Collins et al., and Sweller's Cognitive Load Theory. Overall, well-designed scaffolding plays a meaningful role in enhancing teachers' metacognitive development and instructional quality.

RECOMMENDATIONS

The study recommends that DepEd officials prioritize the integration of structured scaffolding approaches, particularly graphic organizers and processing strategies, into teacher training programs. Policy directions may emphasize evidence-based scaffolding practices that promote reflective thinking, planning, monitoring, and evaluation among language teachers. Standardized professional development modules may also be developed to show how scaffolded tasks strengthen teachers' metacognitive engagement. These initiatives can help improve the quality of language instruction in secondary schools.

School heads should encourage the consistent use of structured and reflective scaffolding practices in classrooms. They may facilitate school-based professional development sessions that focus on graphic organizers, processing strategies, guided reflection, and structured task design. They may also monitor the implementation of scaffolding tools to ensure that teachers apply them meaningfully in lesson delivery. In addition, learning action cells may be used as venues for sharing best practices on scaffolding and metacognitive teaching.

Language teachers should incorporate graphic organizers and processing strategies more intentionally because these domains significantly predicted metacognitive strategies. They may use reflective prompts, guided review, concept maps, tables, flowcharts, and structured lesson flow to strengthen planning, monitoring, and evaluation. Teachers should also examine which scaffolds help learners understand lessons better and which strategies need adjustment. Through this practice, teachers can develop stronger metacognitive awareness and more responsive instructional decisions.

Learners should actively participate in scaffolded learning activities such as summarizing, reflecting, organizing ideas, and checking understanding. They may use graphic organizers, visual aids, and structured questions as tools for improving comprehension and self-regulation. Learners should also take responsibility for using scaffolds to manage reading, writing, speaking, and listening tasks more independently. This active participation can help them benefit more from teachers' scaffolding practices.

Future researchers may conduct similar studies in other districts, grade levels, or subject areas to verify whether the same scaffolding domains predict metacognitive strategies. They may also use longitudinal, experimental, or mixed-methods designs to examine the long-term effects of scaffolding on teacher reflection and learner outcomes. Future studies may include additional variables such as school support, teaching experience, class size, or learner diversity. These investigations can deepen understanding of how scaffolding strengthens metacognitive teaching in different educational contexts.

REFERENCES

1. *Awal, B. T., Bardinas, K., & Galindo, E. A. (2019). Phonological landscape of Maguindanaoan language: Davao variety focus. College of Arts and Sciences Education.*
2. *Bloomfield, J., & Fisher, M. J. (2019). Quantitative research design. Journal of the Australasian Rehabilitation Nurses Association, 22(2), 27-30.*
3. *Câmara, A., Roy, N., Maxwell, D., & Hauff, C. (2021). Searching to learn with instructional scaffolding. Proceedings of the 2021 Conference on Human Information Interaction and Retrieval, 209-218.*
4. *Chen, C. (2021). Using scaffolding materials to facilitate autonomous online Chinese as a foreign language learning: A study during the COVID-19 pandemic. Sage Open, 11(3), 21582440211040131.*
5. *Chen, C. H., & Yeh, H. C. (2019). Effects of integrating a questioning strategy with game-based learning on students' language learning performances in flipped classrooms. Technology, Pedagogy and Education, 28(3), 347-361.*
6. *Chi, M. T. H., & Wylie, R. (2014). The ICAP framework: Linking cognitive engagement to active learning outcomes. Educational Psychologist, 49(4), 219-243.*
7. *Chu, H. C. (2020). Scaffolding EFL reading with text-structure visual displays: Idea maps and idea matrices. English Teaching & Learning, 44(4), 397-415.*
8. *Collins, A., Brown, J. S., & Newman, S. E. (1989). Cognitive apprenticeship: Teaching the crafts of reading, writing, and mathematics. Journal of Educational Research, 18(1), 453-494.*
9. *Daguay-James, H., & Bulusan, F. (2020). Metacognitive strategies on reading English texts of ESL freshmen: A sequential explanatory mixed design. TESOL International Journal, 15(1), 20-30.*
10. *Di Carlo, S. (2017). Understanding cognitive language learning strategies.*
11. *Durodolu, O. O., & Ocholla, D. N. (2017). Search strategy, self-concept and metacognitive skills of secondary school teachers in selected cities in Nigeria and South Africa. Libri, 67(2), 89-102.*
12. *Gulubba, S., Ahmad, A., & Mustafa, H. (2019). Scaffolding language development and learning in teacher-student interactions. International Journal of Recent Technology and Engineering, 8(2), 1035-1040.*
13. *Halwani, N. (2017). Visual aids and multimedia in second language acquisition. English Language Teaching, 10(6), 53-59.*

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14. *Hanks, J. (2017). Exploratory practice in language teaching. Palgrave Macmillan.*
15. *Hartsuiker, R. J., & Moors, A. (2017). On the automaticity of language processing.*
16. *Huertas, A., López, O., & Sanabria, L. (2017). Influence of a metacognitive scaffolding for information search in b-learning courses on learning achievement and its relationship with cognitive and learning style. Journal of Educational Computing Research, 55(2), 147-171.*
17. *Jafarigohar, M., & Mortazavi, M. (2017). The impact of scaffolding mechanisms on EFL learners' individual and socially shared metacognition in writing. Reading & Writing Quarterly, 33(3), 211-225.*
18. *Laud, M. D. (2020). Language classroom anxiety and strategic competence among education students of Holy Child College of Davao Mintal Campus.*
19. *Lee, I., & Mak, P. (2018). Metacognition and metacognitive instruction in second language writing classrooms. TESOL Quarterly, 52(4), 1085-1097.*
20. *Matsuda, N., Weng, W., & Wall, N. (2020). The effect of metacognitive scaffolding for learning by teaching a teachable agent. International Journal of Artificial Intelligence in Education, 30(1), 1-37.*
21. *Moghazy, M. (2021). The influence of technology and innovation in online teaching Arabic as a second language in Dubai. Journal of Education and Practice, 12(5), 58-64.*
22. *Mostafaei, A. M., Kardoust, A., & Saeedian, A. (2019). The role of visual scaffolding in enhancing Iranian EFL students' writing ability.*
23. *Nguyen, C. H., & Phung, V. T. (2021). The relationships between metacognition and reading strategies: The case of English-majored students at a private university in Vietnam. European Journal of Educational Research, 10(3), 1561-1578.*
24. *Perry, J., Lundie, D., & Golder, G. (2019). Metacognition in schools: What does the literature suggest about the effectiveness of teaching metacognition in schools? Educational Review, 71(4), 483-500.*
25. *Rahmat, N. H. (2020). Information processing as learning strategy: The case of graphic organisers. European Journal of Education Studies.*
26. *Santiago, J. G., & Dagdag, J. D. (2021). The effect of mother tongue-based multilingual education on the science achievement and metacognitive learning orientations of Ilocano grade 3 pupils. Journal of Research, Policy & Practice of Teachers & Teacher Education, 11(2).*
27. *Shaito, S. A. (2019). Investigating teachers' views of the importance and use of critical thinking in Dubai. The British University in Dubai.*
28. *Siedlecki, S. L. (2020). Understanding descriptive research designs and methods. Clinical Nurse Specialist, 34(1), 8-12.*
29. *Soodla, P., Jõgi, A. L., & Kikas, E. (2017). Relationships between teachers' metacognitive knowledge and students' metacognitive knowledge and reading achievement. European Journal of Psychology of Education, 32(2), 201-218.*
30. *Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. Cognitive Science, 12(2), 257-285.*
31. *Thuy, N. T. T. (2020). Metacognitive awareness of using reading strategies by TESOL postgraduates intakes 11 and 12 at Ho Chi Minh City Open University. Theory and Practice in Language Studies, 10(2).*
32. *West, P. W. (2016). Simple random sampling of individual items in the absence of a sampling frame that lists the individuals. New Zealand Journal of Forestry Science, 46(1), 15.*
33. *Yildiz, H., & Akdag, M. (2017). The effect of metacognitive strategies on prospective teachers' metacognitive awareness and self-efficacy belief. Journal of Education and Training Studies, 5(12), 30-40.*