STUDENTS' SELF-ASSESSMENT OF VOCABULARY LEARNING OUTCOMES THROUGH KAGAN'S FAN-N-PICK COOPERATIVE LEARNING STRATEGY

Isnaini Eddy Saputro

Universitas Muhammadiyah Sorong, Jl. Pendidikan No.27, Kelurahan Klabulu, Malaimsimsa, Sorong City, West Papua 98416, Indonesia
Isnaini1291@gmail.com

Abstract

This study investigates students' responses to the implementation of the Fan–N–Pick structure in English vocabulary instruction through a self-assessment questionnaire. It was used for the first time in the Primary Teacher Education Program to capture students' evaluations and reflections on their learning experience throughout Fan–N–Pick–based activities. A descriptive quantitative design was employed. 26 students completed a 20-item closed-ended self-assessment questionnaire adapted from Cepni and Oner (2015) and Goto Butler and Lee (2010). The questionnaire measured six indicators of students' learning experiences. The results show predominantly positive responses across the six indicators: learning goals, learning planning, expectations for success, self-control, process self-assessment, and product self-assessment. Students frequently indicated strong engagement, improved vocabulary performance, and positive perceptions toward cooperative vocabulary learning through Fan–N–Pick. The study provides insights into the use of Fan–N–Pick as an effective cooperative learning structure for vocabulary development in higher education. The structure supports 21st-century learning by promoting collaboration, communication, creativity, critical thinking, and social interaction. These findings suggest that Fan–N–Pick can serve as an engaging and meaningful instructional strategy for vocabulary learning in teacher education programs.

Keywords : Cooperative Learning, Fan–N–Pick Structure, Students' Self-Assessment, Vocabulary Instruction.

INTRODUCTION

Vocabulary mastery is a fundamental component of English language proficiency, particularly in English as a Foreign Language (EFL) contexts, as it underpins learners' ability to comprehend input and produce meaningful language across listening, speaking, reading, and writing skills. Despite its importance, vocabulary acquisition remains a persistent challenge for many EFL learners due to limited exposure, difficulties in retention and pronunciation, and insufficient opportunities for meaningful use of lexical items in classroom interaction (Prevost, 2010; Ruslan, 2017; Sunusi & Bhat, 2021; Akramy et al., 2022). These challenges are frequently exacerbated by teacher-centered instructional practices and limited learning resources, which may reduce student engagement and motivation.

Within teacher education programs, vocabulary difficulties are particularly concerning, as pre-service teachers are expected not only to develop their own language proficiency but also to model effective learning strategies for future classroom practice. Students with limited receptive vocabulary often experience difficulties in productive language use, which in turn affects their confidence and participation in learning

activities. Consequently, there is a growing need for instructional approaches that actively engage learners, promote interaction, and support deeper vocabulary processing.

Cooperative learning has been widely recognized as an effective pedagogical approach for addressing vocabulary learning challenges by encouraging interaction, peer support, and shared responsibility for learning. Among various cooperative structures, Kagan's Fan–N–Pick has been shown to promote equal participation, individual accountability, and meaningful peer interaction (Kagan & Kagan, 1994). Previous studies report that Fan–N–Pick enhances communication skills, social interaction, and learner engagement (Amelia, 2017; Shana et al., 2019). However, existing research has predominantly focused on learning outcomes or general classroom engagement, offering limited insight into how students themselves perceive and evaluate their learning processes when participating in this structured cooperative activity. The structure of Fan – N – Pick would be described detailed following Fan – N – Pick card below.
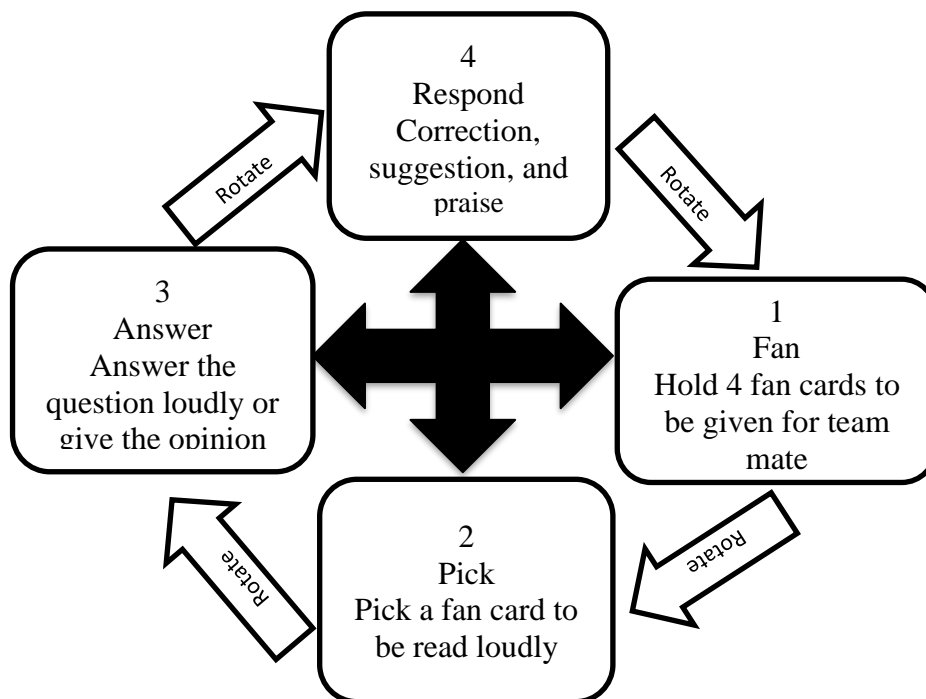
Figure 1. The Steps of Fan – N – Pick Card

In parallel, self-assessment has gained increasing attention as a reflective tool that supports learner autonomy, metacognitive awareness, and self-regulated learning. In language education, self-assessment enables learners to evaluate their progress, identify learning difficulties, and reflect on both learning processes and outcomes (Race, 2001; Al-Rashidi et al., 2022). While self-assessment has been shown to contribute positively to language development, its role in cooperative vocabulary learning contexts remains underexplored. In particular, little attention has been paid to how self-assessment captures learners' cognitive, social, and affective experiences within structured cooperative learning environments such as Fan–N–Pick.

From a 21st-century learning perspective, the integration of cooperative learning and reflective practices is especially relevant. Fan–N–Pick aligns with key competencies

such as collaboration, communication, critical thinking, and creativity, while self-assessment supports learners' ability to reflect, regulate, and take responsibility for their learning. However, empirical evidence that explicitly links these competencies with students' self-assessment of vocabulary learning in cooperative settings is still limited.

Addressing this gap, the present study investigates students' self-assessment of vocabulary learning through the implementation of the Fan–N–Pick cooperative learning structure in a Primary Teacher Education Program. By examining learners' reflective evaluations across cognitive, behavioral, and metacognitive dimensions, this study seeks to provide deeper insight into how students experience vocabulary learning within a structured cooperative framework. The findings are expected to contribute both theoretically, by strengthening the connection between cooperative learning and self-assessment in vocabulary acquisition, and practically, by informing EFL instructors and teacher educators about reflective strategies that support active and autonomous learning.

METHOD

This study employed a descriptive quantitative research design to examine students' self-assessment of vocabulary learning experiences following the implementation of the Fan–N–Pick cooperative learning structure. The focus of the study was not to measure learning gains but to explore learners' reflective evaluations of their cognitive, behavioral, and metacognitive engagement during vocabulary instruction. Data were collected using a Likert-scale questionnaire, a method commonly employed in perception-based educational research (Lateef, 2017).

Participants

The participants consisted of 26 students enrolled in the Primary Teacher Education Program at a private university in Indonesia. The sample was selected using total sampling, as the study was conducted within a single intact class where Fan–N–Pick was implemented as part of regular instruction. The students ranged in age from 18 to 21 years, with 26 female participants. Based on institutional placement records and classroom observation, the students' English proficiency levels were generally basic to intermediate, particularly in vocabulary knowledge. Although the sample size was relatively small, it is considered appropriate for a classroom-based exploratory study focusing on students' self-assessment and reflective responses within a specific instructional context. Similar studies in cooperative learning and perception research have employed small samples when investigating pedagogical practices in authentic classroom settings.

Instrumentation

Data were collected using a self-assessment questionnaire adapted from previous studies on self-regulated learning and language self-assessment (Race, 2001; Cepni & Oner, 2015). The questionnaire consisted of six dimensions: 1) learning goals for English performance; 2) learning planning; 3) expectation for success; 4) self-control; 5) process self-assessment; 6) product self-assessment. The initial version of the questionnaire contained 20 items, which were reviewed and revised to ensure relevance to vocabulary learning and the Fan–N–Pick cooperative context.

Instrument Validation and Reliability

To establish content validity, the questionnaire was evaluated by two experts in English language education and educational assessment. The experts reviewed the clarity, relevance, and alignment of items with the study objectives. Based on their feedback, several items were revised for wording clarity and contextual suitability. Prior to the main data collection, a pilot test was conducted with 20 students from a similar academic background who were not part of the main study. The pilot testing helped identify ambiguous items and assess the consistency of responses. Following the pilot study, minor revisions were made to improve item clarity. The internal consistency of the questionnaire was examined using Cronbach's alpha, which yielded a reliability coefficient of $\alpha = 0.82$, indicating good internal consistency for perception-based research instruments.

Fan–N–Pick Implementation Procedure

The Fan–N–Pick cooperative learning structure was implemented over X instructional sessions, each lasting approximately X minutes. Vocabulary instruction focused on contextual and thematic vocabulary, including daily activities, classroom expressions, and common academic terms relevant to the students' learning materials. During each session, students were divided into heterogeneous groups of four, with each member assigned a rotating role in accordance with the Fan–N–Pick structure: (1) card holder; (2) question reader; (3) responder; (4) evaluator/praiser. A total of 12 vocabulary cards were used in each session, containing definitions, contextual sentences, or short questions related to target vocabulary items. The same instructional procedures were consistently applied across sessions to ensure uniformity in teaching methods. The lecturer monitored group interactions, provided clarification when necessary, and ensured that all students actively participated in accordance with their assigned roles.

Data Collection and Analysis

At the end of the Fan–N–Pick implementation, students completed an anonymous self-assessment questionnaire. The data were analyzed using descriptive statistics, including mean scores and percentages, to describe students' self-assessment across the six dimensions. The results were interpreted to identify overall trends in students' perceptions of vocabulary learning through the Fan–N–Pick cooperative learning structure.

FINDINGS AND DISCUSSION

Findings

This study examined students' self-assessment of vocabulary learning through the implementation of the Fan–N–Pick cooperative learning structure, utilizing six dimensions of self-regulated learning. Rather than focusing on individual questionnaire items, the analysis examined broader response patterns to understand how students perceived their cognitive, behavioral, and metacognitive engagement during Fan–N–Pick–based instruction.

Overall, the findings indicate a consistently positive response pattern across all six self-assessment dimensions, with most students reporting frequent or regular engagement in goal setting, planning, self-control, and reflective evaluation. These results suggest that Fan–N–Pick does not merely facilitate vocabulary practice but also creates learning conditions that support learner autonomy and cooperative engagement. The structured rotation of roles and peer interaction appears to encourage students to take responsibility for their learning while actively participating in collaborative vocabulary tasks.

Importantly, variations in response intensity across indicators highlight that students tended to report stronger engagement in collaborative and motivational aspects than in higher-order self-regulatory processes such as planning and outcome evaluation. This pattern may reflect students' learning profiles as pre-service teachers who are accustomed to interactive classroom activities but are still developing independent reflective skills. Such findings underscore the value of structured cooperative learning in scaffolding not only vocabulary acquisition but also students' metacognitive awareness.

Learning Goals, Self-Control, Self-Assessment Processing, and Self-Assessment Producing

These four indicators represent students' self-assessed ability to integrate vocabulary knowledge into receptive (listening and reading) and productive (speaking and writing) English skills during Fan–N–Pick–based instruction. Eleven questionnaire items were used to capture students' engagement in vocabulary-related activities, including listening to peers, contributing feedback, speaking accurately and fluently, pronouncing and spelling words, reading aloud, writing sentences, recalling word meanings, and understanding spoken input.

Table 1. Integration of Receptive and Productive Vocabulary into The Fan–N–Pick Structure

No.	Self-Assessment Statement	Fan a Card	Read a Question	Answer a Question	Respond (Correction/Suggestion/Praise)
5	I listened to the opinions and recommendations of my teammates.				√
7	I contributed (correction, opinion, answering) to other groups' presentations.			√	√
8	When sharing ideas or answering questions, I could speak English	√		√	√

No.	Self-Assessment Statement	Fan a Card	Read a Question	Answer a Question	Respond (Correction/Suggestion/Praise)
	sentences correctly.				
9	When asking, discussing, answering, or presenting, I could speak smoothly.	√	√	√	√
10	I could pronounce the English words learned in class correctly.	√	√	√	√
11	I could read aloud the words or sentences on the screen/board or my sheet.		√		
13	I could spell the English words learned correctly.		√	√	
14	I could write sentences and vocabulary learned in class.		√	√	
15	I remembered the meaning of English words in every meeting.			√	√
19	I could speak English without mixing Indonesian.			√	√
20	I could understand utterances from the lecturer and classmates.				√

Table 1 presents the alignment between the Fan–N–Pick stages and the targeted vocabulary-related behaviors. The results show that students reported frequent engagement across all stages of the Fan–N–Pick structure. High levels of participation were observed in activities requiring oral interaction, such as answering questions,

responding to peers' contributions, and providing corrections or suggestions. Students also reported consistent involvement in pronunciation, spelling, reading aloud, and writing tasks, indicating engagement in both receptive and productive vocabulary processes. Overall, the results suggest that students perceived Fan–N–Pick as supporting active vocabulary use across multiple language skills throughout the instructional sessions.

Learning Planning

Learning planning refers to students' ability to prepare learning materials, manage time effectively, and participate actively during Fan–N–Pick sessions. This indicator was measured using four questionnaire items (Items 1, 2, 6, and 17), which were integrated into different stages of the Fan–N–Pick structure, including fan a card, read a question, answer a question, and respond.

Table 2. Integration of Learning Planning Statements into The Fan–N–Pick Structure

No.	Self-Assessment Statement	Fan a Card	Read a Question	Answer a Question	Respond
1	I prepared for the lesson in advance.		√	√	√
2	I collected information from various resources to prepare the presentation.	√	√	√	√
6	I made sure to spare enough time for group work.			√	√
7	I participated sincerely in classroom activities and tasks.		√	√	√

The results show that most students reported positive learning planning behaviors throughout the implementation of Fan–N–Pick. A majority of students indicated that they prepared for the lesson in advance (Item 1), particularly during the read, answer, and respond stages. Similarly, students reported actively collecting information from various resources to support group presentations (Item 2), which occurred consistently across all stages of the Fan–N–Pick activity. In addition, many students stated that they allocated sufficient time for group work (Item 6) and participated sincerely in classroom activities and tasks (Item 17), especially during the answer and respond phases.

Expectation for Success

Expectation for success refers to students' beliefs in their ability to perform learning tasks effectively and contribute to group achievement during Fan–N–Pick activities. This indicator was measured using five questionnaire items (Items 3, 4, 6, 7, and 8), which were embedded across the stages of the Fan–N–Pick structure, including fan a card, read a question, answer a question, and respond.

Table 3. Integration of Students' Expectation for Success into The Fan–N–Pick Structure

No.	Self-Assessment Statement	Fan a Card	Read a Question	Answer a Question	Respond
3	I fulfilled my responsibilities in the group.			√	√
4	I did my best to ensure the group's success.	√	√	√	√
6	I participated actively in English vocabulary class.	√	√	√	√
7	I participated in class activities and did tasks sincerely.		√	√	√
8	I could self-correct when I made mistakes.				√

The results indicate that most students reported high levels of confidence and responsibility in both individual and collaborative learning. A majority of students stated that they fulfilled their responsibilities within the group (Item 3) and consistently did their best to ensure group success (Item 4), particularly across all stages of Fan–N–Pick. Students also reported actively participating in English vocabulary lessons (Item 6) and sincerely engaging in classroom tasks (Item 7), suggesting a strong sense of engagement and commitment to the learning process. However, responses to the self-correction item (Item 8) were relatively lower compared to other statements, with some students indicating that they only occasionally corrected their own mistakes during the response stage.

Discussion

The findings of this study indicate that the implementation of the Fan–N–Pick structure positively influenced students' vocabulary learning experiences across three interrelated dimensions: (1) learning goals, self-control, and self-assessment processes; (2) learning planning; and (3) expectations for success. Collectively, these dimensions reflect not only students' vocabulary development but also their growing autonomy, engagement, and responsibility within a cooperative learning environment.

First, students' positive responses related to learning goals, self-control, and self-assessment processes suggest that Fan–N–Pick effectively supports the integration of vocabulary into both receptive and productive language skills. Students reported improvements in listening and reading comprehension, pronunciation and spelling accuracy, speaking fluency, and basic writing ability. These outcomes can be attributed to the cyclical and structured nature of Fan–N–Pick, which repeatedly exposes learners to vocabulary through reading, discussion, oral production, and peer response. Such repeated engagement aligns with established principles of vocabulary instruction that emphasize explanation, repetition, interaction, and application (Marzano, 2004). Moreover, the response stage provided natural opportunities for feedback and correction,

helping students regulate their performance and gradually develop self-monitoring skills, even if full self-correction had not yet been consistently achieved.

Second, the results related to learning planning demonstrate that Fan–N–Pick encourages students to take greater responsibility for preparing materials, managing time, and participating actively in group work. Because each stage of the structure requires visible and immediate contribution, students are implicitly pushed to prepare in advance and remain engaged throughout the lesson. This finding highlights the role of instructional design in shaping learner behavior: when tasks are structured, role-based, and collaborative, planning becomes a functional necessity rather than an optional skill. These results support previous studies, which indicate that cooperative learning structures foster responsibility, readiness, and sustained engagement (Shana et al., 2019). In this sense, Fan–N–Pick functions not only as a vocabulary-learning technique but also as a mechanism for strengthening self-regulated learning behaviors.

Third, students' strong expectations for success reflect the motivational impact of Fan–N–Pick on both individual and group performance. Most students expressed confidence in fulfilling their responsibilities, contributing to group success, and participating actively in classroom activities. This suggests that the cooperative framework helped students perceive success as achievable and shared, thereby reinforcing two core principles of Kagan's cooperative learning theory: positive interdependence and individual accountability (Kagan, 1989). However, the comparatively lower responses related to self-correction indicate that, while students were confident as group members, their independent reflective skills were still in development. This pattern suggests that in cooperative contexts, learners may initially rely more on peer and teacher feedback than on internal self-evaluation, a phenomenon also noted by Lismay and Ramadhani (2021). Importantly, this does not indicate a weakness of the method but rather underscores the gradual nature of self-assessment development.

Taken together, the merged findings reveal that Fan–N–Pick creates a learning environment that simultaneously supports vocabulary acquisition, cooperative engagement, and learner autonomy. Students did not merely memorize vocabulary items; they actively used them in meaningful interaction, planned their learning activities, and developed confidence in their ability to succeed. The structure's emphasis on rotating roles, peer interaction, and feedback appears particularly beneficial for students who previously lacked confidence or motivation in learning English vocabulary. Furthermore, the results suggest that Fan–N–Pick contributes to broader educational goals, including communication skills, collaboration, and responsibility, competencies that are essential for 21st-century learning (Amelia, 2017; Karim & Awaludin, 2020).

Overall, this study provides evidence that the Fan–N–Pick framework is an effective cooperative learning approach for vocabulary instruction, particularly when combined with self-assessment practices. While students demonstrated strong engagement, planning, and expectations for success, future implementations may benefit from more explicit instruction in self-correction and reflective strategies to further strengthen learner autonomy.

CONCLUSION

This study examined students' self-assessment of the Fan–N–Pick cooperative learning structure in English vocabulary instruction using six indicators: learning goals, learning planning, expectations for success, self-control, self-assessment processing, and self-assessment producing. The findings indicate that Fan–N–Pick effectively facilitated vocabulary learning by engaging students in structured activities that integrated receptive and productive language skills, including listening, speaking, reading, and writing. Students generally reported positive perceptions across all indicators, particularly in learning goals, self-control, and self-assessment processes, suggesting increased engagement, responsibility, and awareness of vocabulary use during cooperative learning. The structured interaction and peer feedback embedded in Fan–N–Pick supported vocabulary application and collaborative participation. However, some students demonstrated limited ability to independently self-correct vocabulary errors, indicating that reflective and self-regulatory skills require further instructional support. Overall, Fan–N–Pick is an effective cooperative learning strategy for EFL vocabulary instruction when used in conjunction with self-assessment. It promotes active participation, vocabulary development, and cooperative engagement, offering practical implications for improving English teaching practices in higher education contexts.

REFERENCES

Abd Karim, R., & Awaludin, F. A. (2020). Developing primary school students' english communication skills and team building through fan-n-pick learning model. *European Journal of English Language Teaching.* https://doi.org/10.5281/zenodo.3737149

Abdulwahhab, M. L., & Hashim, B. H. (2020, July). The effect of cooperative learning strategy on the engagement in architectural education. In *IOP Conference series: Materials science and engineering* (Vol. 881, No. 1, p. 012004). IOP Publishing. https://zenodo.org/badge/DOI/10.5281/zenodo.3737149.svg

Akramy, S. A., Noori, A. Q., Orfan, S. N., & Hashemi, A. (2022). Effective techniques of teaching vocabulary in Afghan EFL classrooms. *Asian-Pacific Journal of Second and Foreign Language Education, 7*(1), 1-14. https://doi.org/10.1186/s40862-022-00151-8

Al-Rashidi, A. H., Asif, M., Vanani, M. G., & Aberash, A. (2022). Learner-oriented assessment (LOA) practice: the comparative study of self-assessment, peer assessment, and teacher assessment on EFL learners' writing complicity, accuracy, and fluency (CAF), speaking CAF, and attitude. *Language Testing in Asia, 12*(1), 59. https://doi.org/10.1186/s40468-022-00209-x

Al-Yaseen, W. S. (2014). Cooperative learning in the EFL classroom. In *International Academic Conference Proceedings* (pp. 92-98).

Amelia, R. A. (2017). *The Effect of Fan-N-Pick By Card On Students' Ability IN Speaking Skills* (Doctoral dissertation).

Anugerahwati, M. (2019). Integrating the 6cs of the 21st century education into the english lesson and the school literacy movement in secondary schools. *KnE Social Sciences,* 165-171. https://doi.org/DOI 10.18502/kss.v3i10.3898

Çepni, O., & Öner, S. T. (2015). The opinions and self-assessments of the 7th grade students regarding the jigsaw I technique among the cooperative learning practices

in the social studies course. Journal of Curriculum and Teaching, 4(2), 22-34. http://dx.doi.org/10.5430/jct.v4n2p22

Drakeford, W. (2012). The effects of cooperative learning on the classroom participation of students placed at risk for societal failure. Online Submission, 2(4), 239-246.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). How to design and evaluate research in education (Vol. 7, p. 429). New York: McGraw-hill.

Goto Butler, Y., & Lee, J. (2010). The effects of self-assessment among young learners of English. Language testing, 27(1), 5-31. https://doi.org/10.1177/0265532209346370

Harjono, H. S. (2011). Is cooperative learning better than individual learning in reading comprehension workshop?. Jurnal Tekno-pedagogi, 1(1).

Hasnalia, R., & Rifli, N. R. (2023). Self-Assessment of English Writing Skills. Pedagogical Research Journal, 1(1), 7-12.

Kagan, S., & Kagan, S. (1994). Kagan Cooperative learning. San Clemente, CA: Kagan.

Kern, A. L., Moore, T. J., & Akillioglu, F. C. (2007, October). Cooperative learning: Developing an observation instrument for student interactions. In 2007 37th Annual Frontiers In Education Conference-Global Engineering: Knowledge Without Borders, Opportunities Without Passports (pp. T1D-1). IEEE.

Lateef, M. A. (2017). A qualitative descriptive exploratory study of teaching methodologies utilised by nurse educators in South West Nigeria (Doctoral dissertation).

Lessard-Clouston, M. (2013). Teaching Vocabulary. TESOL International Association. 1925 Ballenger Avenue Suite 550, Alexandria, VA 22314.

Lianisya, L. (2014). The use of self-assessment towards students'reading behavior (A case study). Journal of English and Education, 2(2), 26-35.

Lisma, L. (2018). Developing students'vocabulary by using notebook at smpn 12 palopo (Doctoral dissertation, INSTITUT AGAMA ISLAM NEGERI PALOPO).

Lismay, L., & Ramadhani, P. L. (2021). The Students' Self-Assessment on Their English Language Learning. Modality Journal: International Journal of Linguistics and Literature, 1(2), 110-114. http://dx.doi.org/10.30983/mj.v1i2.4891

Llamosas Corrales, L. E. (2014). Teaching vocabulary learning strategies: a vocabulary improvement program (VIP) for EFL beginner students from Centro Cultural Peruano Norteamericano Arequipa.

Marzano, R. J. (2004). A six-step process for teaching vocabulary. Building background knowledge for academic achievement. Alexandria, VA: Association for Supervision and Curriculum Development.

Prevost, J. K. (2010). A case study of a vocabulary strategy in a high school class of special education students. Ph. D. Thesis.

Puspitasari, F. (2018). Cooperative Learning: Engaging Young Learners in a Large Class. The 2nd International Conference On Child-Friendly Education (ICCE) 2018. http://hdl.handle.net/11617/10417

Race, P. (2001). A briefing on self, peer and group assessment. LTSN generic centre assessment guides series.

Ruslan, R. (2017). Developing vocabulary mastery through word association by the second year students of smp muhammadiyah al amin sorong. Qalam: Jurnal Ilmu Kependidikan, 6(2), 1-5. https://doi.org/10.33506/jq.v6i2.206

Shana, Z., Lahiani, H., & Mahmoud, S. (2020). The effects of Kagan structures on UAE sixth grade students' performance of reading comprehension: a pilot study. Education 3-13, 48(8), 988-999. https://doi.org/10.1080/03004279.2019.1687555

Sunusi, S. L., & Bhat, B. A. (2021). Developing teaching material design of basic English Vocabulary based on interactive multimedia for Elementary School. International Journal of Humanities and Innovation (IJHI), 4(3), 99-103. https://doi.org/10.33750/ijhi.v4i3.123

Waldvogel, D. A. (2013). The Relationships between Vocabulary Learning Strategies and Vocabulary Size among Adult Spanish Foreign Language Learners. Journal of Language Teaching & Research, 4(2). https://doi.org/10.4304/jltr.4.2.209-219