

Vocabulary Acquisition Perceptions Using Kagan's Fan-N-Pick Among Papua and Non-Papua Students for Sustainable Development Goals in Indonesia

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Abstract

Learning English is still challenging, especially for Papua and non-Papua undergraduate students in several conflict areas of Southwest Papua. Few studies have been conducted on the most effective method to teach English as a conflict language. This research investigates undergraduate students' perceptions when they learn English vocabulary using Kagan's fan-n-pick structure implemented in primary school teacher education study programs. The use of questionnaires and interviews to explore 26 undergraduate students' perceptions of Kagan's fan-n-pick structure in learning English vocabulary. This study is a content analysis employing descriptive qualitative. The content analysis for this study examines the range of types and frequency of students' perceptions. It is concerned with analyzing and presenting the data in percentages of questionnaires and content interviews. The findings of this study highlight the benefits of the method that relate to the five principles of the cooperative learning approach. Kagan's Fan-N-Pick affected the student's ability to think, communicate, collaborate, and build teams in English learning, especially in terms of vocabulary acquisition. It improves the receptive and productive vocabulary skills of undergraduate students. This helps students solve problems both individually and in groups. It fosters engagement, participation, social interaction, flexibility, and adaptability while being simple and accessible to areas with humanitarian crises. It concludes that the FNP structure can be used to prepare pre-service teachers at the primary education level, helping them develop skills in real situations, and fostering respect for diversity, which they will pass on to their future students by incorporating basic and flexible strategies into conflict-ridden environments.

Keywords: Vocabulary acquisition; Students' Perceptions; Cooperative Learning; Kagan's Fan-n-pick Structure.

Programs for teaching English in higher education that align with the Sustainable Development Goals (SDGs) enable teachers to help students become more aware of

contemporary terms associated with global challenges that enhance their English language proficiency (Rada, 2022). In today's academia, the English language has become a mandatory

subject for students of non-English study programs. It is delivered every semester. For students to communicate globally, they must master English. Their understanding of English for major-related purposes needs to be expanded. (Agustina, 2014). Regarding the SDGs incorporated into English language teaching and literature (Cordova, 2024), English plays a bigger role in the global educational system. This is owing to its enormous influence on several professions, including science, business, entertainment, and other areas (Alomaim & Altameemi, 2022). Indonesian institutions mandate that students concentrate on learning achievement rather than just completing the required materials, which is why this effect is becoming more widespread throughout the country, including Indonesia. The goal is to structure instruction around the interactions and creative approaches that students use to acquire the language.

In education, the results of final exams serve as a gauge of students' accomplishments and are understood to represent their aptitude level. Apart from the final examination scores as the main indicator of teaching effectiveness and students' learning success. The efficiency of the teaching-learning process is ascertained through additional assessments. Furthermore, since summative or formative paper-based exam results only provide a limited view of the findings of one study aim, it is incorrect to infer information about students' learning achievement from these tests alone. Several more indicators can show that learning is happening effectively. It is possible to gain an understanding of the material presented, students' opinions of their schooling, their critical thinking abilities, and improved personality qualities by utilizing these indicators. Koon and Murray (2016) claim that successful learning is demonstrated by gains in social outcomes (such as self-awareness) and intrapersonal interactions (cooperative abilities). Additionally, O'Connell and Dickinson (1993) found that student ratings of the teaching and

learning process were significantly correlated with their views of learning, as opposed to differences in pre- and post-test outcomes. Even though it might be challenging for lecturers to evaluate students' abilities based on their viewpoints, teachers must be aware of the lesson's objectives to ensure that students understand the importance of completing the assessment of their learning. Furthermore, students' views can be investigated and used as data to enhance instruction. Another advantage of the data gathered from grades and students' opinions of the classes' objectives is the outcomes of their assessments, which are used to determine the learning components. (Yeager & Walton, 2011).

Many researchers have examined English teaching strategies to help improve students' English proficiency. Several teaching media have been used in learning. The results show that the use of suitable learning media improves Papua and non-Papua undergraduate students' engagement and motivation in English learning (Saputro, 2018; Saputro & Rusli, 2020; Saputro, 2022; Saputro et al., 2022; Saputro, 2023; Saputro et al., 2023). Despite having groups, some students cannot participate in the learning process. In addition, much research has been conducted in East Indonesia focusing on the English learning of Papua and non-Papua undergraduate students, for example, the use of learning media which aims to make Papua and non-Papua students focus on students' learning engagement and increase learning motivation, impacting learning English achievement in higher education. Further, Saputro et al., (2023) found that using the multimodality of graffiti arts encourages students to engage in vocabulary-building activities such as question-asking and answering, opinion-giving, explaining, spelling words correctly, writing sentences, and presenting solutions to problems in the social context of graffiti. Saputro and Rusli (2020) suggest that online games can help students enhance their vocabulary since they provide opportunities to reflect on and explain what they

are learning. They also assist students in mastering a vast vocabulary. The literature indicates that it comes to teaching foreign languages (FL) to undergraduate Papua and non-Papua students in East Indonesia, the students' viewpoints on vocabulary acquisition through Kagan's fan-n-pick method have not been examined.

Nonetheless, instructing learners in conflict areas demands a straightforward and flexible strategy. The approach should be simple, adaptable to topic areas, effective in small and large groups, and encourage active learning. The research shows that teaching EFL to undergraduate Papua and non-Papua students in East Indonesia using Kagan's straightforward and flexible Fan-N-Pick approach has not been examined. This study looked at how both Papua and non-Papua undergraduate students in an East Indonesian university's primary school teacher education program learned English vocabulary using Kagan's fan-n-pick cooperative learning method.

As prospective primary instructors, this study sheds light on how to enhance the students' vocabulary acquisition, teamwork, communication, and thinking abilities of Papua and non-Papua while they study English. Bridging the gap between the competencies of graduates and the curriculum based on outcomes is anticipated to benefit other students pursuing diverse majors who are learning English through Kagan's cooperative learning structure. This study is guided by the following question: "What are Papua and non-Papua undergraduate students' perceptions of learning vocabulary using Kagan's fan-n-pick structure?"

Literature Review

Kagan Cooperative Learning

Previous research on English language learning (ELL) has concentrated on the cooperative learning approach and students' learning outcomes, such as academic and social success. Cooperative learning (CL) is a

pedagogical approach that encourages students to work in groups to support one another throughout learning activities. The first step in helping English lecturers address several issues related to how to treat students engaged in English learning and improve the student's English learning achievement (Kagan & Kagan, 2009). Moreover, it was evident that Kagan's structure impacts students' reading comprehension performance and perception (Shana et al, 2020). According to Sonita and Febria (2022), CL is one of the instructional designs created and demonstrated to improve learners' accomplishment since it promotes student cooperation and mutual reliance to complete a task or meet a learning objective. Five components help boost students' learning accomplishment and engagement through cooperative learning (CL) design (Wang, 2020; Soleimani and Khosravi, 2017):

The concept of "win or lose together" is related to positive interdependence. It draws attention to how students are motivated to demonstrate group cohesion, positive interactions, and hard work when they acknowledge the importance of each member's contribution to the successful group (Kagan & Kagan, 2009). Every team member must put forth effort to ensure success, and each member has specific duties and obligations to complete this cooperative project. Students need to rely on one another for the group to succeed (Hinson, 2015). Students' accountability for achieving group objectives is linked to their contribution or accountability. Each member must finish the task at hand by arguing, asking questions, debating concepts, listening to corrections, and developing their speaking, listening, and thinking skills (Wang, 2020). The group should take responsibility for achieving its goals. According to Kagan and Kagan (2009), it is evident who requires assistance and when individual accountability is required when every student's performance is evaluated and the results are communicated to both the group and the individual. The purpose of group processing

and feedback is to stimulate contemplation on the subject and link it to cooperative learning assessment. In this section, student achievement is noted. By demonstrating their capacity to communicate their thoughts, group processing teaches students how to maintain group effectiveness (Soleimani and Khosravi, 2017). Social skills are individual and collective competencies like effective communication that are essential for fruitful collaboration. According to Hinson (2015), social skills help pupils improve their ability to lead, make decisions, feel confident, communicate, and solve problems. According to Kuzu (2007) and Soleimani and Khosravi (2017), face-to-face and straightforward interactions describe students' engagement to support one another by pooling skills and efforts, pushing one another to succeed, looking for understanding, talking about concepts being learned, and making connections between what they have learned and what they need to learn.

The five components of CL are being used in English language learning to help teachers assess the quality of their instruction, comprehend what their students are learning, and facilitate casual conversations in the target language (Suwantarathip and Wichadee, 2010). This review focuses on vocabulary acquisition and its advantages in applying Kagan's structure, outlining a theoretical foundation for English learning utilizing the fan-n-pick approach developed by Kagan.

Kagan's Fan-N-Pick Structure

The Fan-n-pick (FNP) structure is one of the parts of Kagan's cooperative learning (Kagan CL) and the simple structure used in language teaching. It helps learners study in groups cooperatively to improve learning motivation and achievement in entrepreneurship lessons (Hadi et al, 2018). The FNP is utilized not just for vocabulary instructions, but also for reading and communication skills development for students in primary schools. It benefits students who are not motivated to study English (Al Matrafi, 2016; Radja, 2017; Riyadi et al., 2016).

Moreover, the FNP structure creates a positive relationship in social communication between students and students and teachers with students (Shana et al., 2020). It makes them excited about learning because the steps of FNP help them improve their receptive and productive vocabulary skills (Kagan & Kagan, 1994). FNP is cooperative learning that directs the students to develop their social skills, thinking skills, and knowledge (Karim & Awaludin, 2020).

Shana et al. (2020) highlighted that English learning with the FNP structure encourages collaborative interaction, where students engage through, question cards, discussions, and sharing answers. Al Matrafi (2016) supports this, emphasizing how FNP makes learning enjoyable by involving students in spelling and idea-sharing. The FNP structure benefits English learners by enhancing social skills, teamwork, knowledge acquisition, and critical thinking (Kagan & Kagan, 1994; Nurdianasari et al., 2017). It is added by Al Matrafi (2016) that FNP assists students in language acquisition, communication, and learning processes, while Radja et al., (2017) also develop critical thinking skills for group projects.

The Advantages of Fan-N-Pick Structure

Numerous studies have demonstrated the benefits of a fan-and-pick framework in the classroom. Hinson (2015) discovered that Kagan's framework fosters a constructive learning atmosphere for elementary and middle school students. Additionally, according to Karim and Awaludin (2020), FNP can boost students' self-esteem when speaking, pique their curiosity in learning the language, and improve their ability to collaborate with others through group projects when teaching English, particularly elementary school pupils who are learning to speak. Al Matrafi (2016) found that fan-n-pick improves academic performance, engages students cognitively through idea-sharing and questioning, emotionally motivates and corrects one another, fosters behavioral responsibility, and develops positive social skills in elementary school students learning English.

According to Radja et al. (2017), FNP helps junior high school students transfer knowledge, develop new skills, and promote in-depth topic comprehension. Similarly, Nurdianasari et al. (2017) observed that FNP benefits fifth-grade elementary social studies students by motivating, sharing ideas, and asking questions. Saktiani et al. (2022) found that FNP encourages self-access learning, lowers anxiety, helps students acquire a new language, and makes it easier to answer from various online sources. Shana et al. (2020) have provided more support for the FNP's impact in improving individual performance, self-directed learning, self-assurance, communication, and teamwork. These advantages match the demands of contemporary skill sets. Koh et al. (2017) emphasized how FNP supports 21st-century abilities like information finding, problem-solving, and critical thinking. The abilities of communication, critical thinking, sharing of knowledge, social contact, teamwork, and collaboration are encouraged by the structure (Al Matrafi, 2016). Thus, educational levels, research samples, and research output are where the current study differs from the examined literature. The study investigates how undergraduate students in primary school teacher preparation programs from Papua and non-Papua view the use of the FNP structure and its advantages for studying English in higher education. The FNP structure for English education research from pre-service teachers in elementary schools uses this research as a reference.

Fan-N-Pick Structure in Learning Vocabulary

The fan-n-pick method, developed by Spencer Kagan, has four steps for students to complete English learning vocabulary (Kagan & Kagan, 1994). Students work in groups of four, alternating between handling cards, reading questions, providing answers, and summarizing information dependent on the number of cards (Al Matrafi, 2016). These phases support autonomous and directed learning, knowledge practice and assessment, motivation, social

skills, teamwork, and successful communication in both individual and group contexts (Al-Akedi, 2020; Hadi et al., 2018; Lusiana et al., 2017; Nurdinasari et al., 2022; Riyadi et al., 2016).

Students respond differently to the fan-n-pick (FNP) method when it employs the four steps of vocabulary acquisition. Yudiati and Andriyanto (2017) state that the students are enthusiastic in acquiring new vocabulary. Students practice speaking the words aloud in groups by composing sentences or using sounds after acquiring receptive vocabulary and word distinction (Karim & Awaluddin, 2020). Regular participation in FNP routines encourages self-access and independent learning, nurturing proactive, responsible, and confident students who thrive in self-directed learning within the Kagan cooperative structure (Nurdinasari, 2022).

Method

Research paper trends in English language instruction and learning have been identified through the application of content analysis techniques. Since content analysis extensively evaluates the variety of types and frequency of students' views, it is the most appropriate approach for this study (LaBelle, 2010). Neuendorf (2002) states that content analysis is an empirical method that can be used to evaluate or display a kind of variable. The study investigated how undergraduates from Papua New Guinea and those from other countries perceive vocabulary acquisition using Kagan's fan-n-pick method. The four steps that students took to acquire vocabulary were holding a fan card, reading the question on a fan card, responding, and drawing a conclusion. They enthusiastically engaged in vocabulary-building exercises, such as concept discovery, sentence construction, meaning development, group debates, and skill application.

Participants and context

This study was conducted at *Universitas Pendidikan Muhammadiyah Sorong*, a private

university in Sorong Regency, Southwest Papua, Indonesia. Due to the remote location of Sorong Regency, both Papua and non-Papua residents are often limited in accessing English as the additional literacy to develop their foreign language ability and experience. This highlights the need to enhance English skills among undergraduate students in primary school teacher education at Sorong Regency. The study involved 26 undergraduate students aged 19-25

enrolled in Basic English during their first semester at a private college referred to Tables 1 and 2.

Table. 1 Demographic Profile of the Participants

Female	Age	Papua and non-Papua
26	26	26

Source: Primary school teacher education study program (2023)

Table. 2 Characteristics of Respondents by Gender, Age, and Ethnicity

No	Characteristics respondents	N	%
	Female	26	100%
Age			
1	19 years old	7	26.9%
2	20 years old	10	38.5%
3	21 years old	5	19.2%
4	22 years old	3	11.5%
5	25 years old	1	3.8%
Ethnicity			
6	Papua students	14	53.8%
7	Non-Papua students	12	46.2%

Source: Primary school teacher education study program (2023)

The sample, which included 26 female students, shows the distinctive characteristics of Papua and non-Papua students. They take this course as a required two-credit component of the 24-credit semester curriculum. Students from Papua and non-Papua are randomized to a group for this study. The students can collaborate based on the five principles of cooperative learning to acquire and learn English and pass this course before enrolling in an English for Specific Purposes (ESP) course intended for undergraduate students at the primary school teacher study programs in second-year academic programs. They spend twelve weeks learning English to provide English literacy to Elementary students despite their being undergraduates in a program designed to prepare primary school teachers. The initial course covers basic English terminology, vocabulary, and basic writing, speaking, reading, and listening skills. It also focuses on receptive and productive vocabulary skills, such as listening, reading, speaking, and writing. This course

emphasizes critical thinking, collaboration, communication, and team-building by employing Kagan's fan-n-pick structure to advance English learning beyond elementary vocabulary.

Data collection and data analysis

Twelve weeks were used to conduct this research then at the time questionnaires were distributed to gather data. The questionnaires to dig into students' perceptions consisted of ten statements (refer to Table 4). After a vocabulary test, questionnaires were used with interviews and transmitted via Google Forms. The questionnaire, using a 5-scale Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree) from the Cooperative Learning Approach (CLA) survey (Wichadee, 2005), assessed students' attitudes. It investigated opinions about Kagan's fan-n-pick structure implementation, which consists of five cooperative learning principles and four learning processes. Means and standard deviations were used in descriptive statistics to classify students' opinions about

learning English vocabulary with the framework. Furthermore, the interviews were incorporated to improve understanding of the results, and content analysis was performed to explain the qualitative data (Lingard, 2019; Lestari et al., 2020).

Results

Statistical Packages for the Social Sciences (SPSS) were utilized to analyze and interpret the data collected through surveys. The results were used to answer the research question "What are Papua and non-Papua undergraduate students' perceptions of learning vocabulary using Kagan's fan-n-pick structure?"

Analysis Descriptive Results of the Data
Table. 3 Students' Perceptions of Kagan's Fan-n-pick Structure

	Mean	Std. Deviation
Q1	4.46	0.582
Q2	4.50	0.648
Q3	4.15	0.881
Q4	4.38	0.637
Q5	4.15	0.881
Q6	4.46	0.706
Q7	4.69	0.471
Q8	4.62	0.496
Q9	4.38	0.752
Q10	4.19	0.849
Average	4.40	0.628

Source: Perceptions of Cooperative learning approach (Wichadee, 2005)

Mean category (Wichadee, 2005):

1.0-1.8 = merely agree

1.8-2.6 = generally agree

2.6-3.4 = neutral

3.4-4.2 = almost agree

4.21-5.00 = strongly agree

Table 3 presents the perceptions of Papua and non-Papua undergraduate students regarding Kagan's fan-n-pick structure in English learning, particularly vocabulary acquisition. The students strongly agreed with statements 7, 8, 2, 6, 1, 4, and 9, while statements 3 and 5 almost agreed. The average perception score for both groups was 4.40, indicating a significant endorsement of

Kagan's approach. The highest-rated aspect was "Kagan's FNP structure creates good relationships among group members" (4.69, $SD=0.471$), while "Kagan's FNP structure helps everyone reach the goal equally" received a lower rating (4.15, $SD=0.881$). The results are presented below.



Figure. 1 Mean Scores of Papua and non-Papua Perceptions

The mean scores of 26 students, both Papua, and non-Papua, are displayed in a bar chart. Students' opinions of Kagan's FNP structure implementation during the 12-week learning process are highly and somewhat agreed. Positive interdependence is an aspect of question 7, which has the highest level of strongly agreed student perceptions. All other highly agreed perceptions also point to positive interdependence. The students strongly agreed that utilizing Kagan's FNP structure in teaching English fosters beneficial teamwork. Subsequently, the almost agreed response pertains to issues 3, 5, and 9, which are associated with interpersonally and group processing. It was interpreted that when lecturers and teachers teach English to students in elementary or higher education, they should concentrate on the components of cooperative learning.

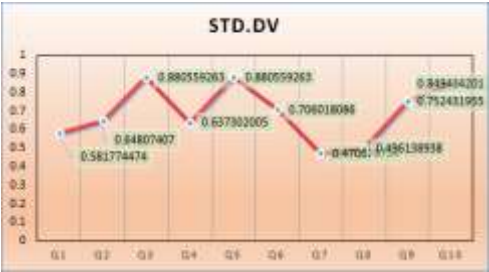


Figure. 2 Standard Deviation Score of Papua and non-Papua Perceptions

If the highest of strongly agreed perceptions refer to question 7 observing through the mean score, in standard deviation is different. In Figure

2, the highest standard deviation indicates questions 3 and 5 which described students' perceptions regarding group processing and positive interdependence in learning English using Kagan's FNP structure of cooperative learning. Moreover, question 10 also related to group processing shows the high standard deviation score of students' perceptions of Kagan's cooperative learning. From the bar chart of the means score and standard deviation scores, all the students, Papua, and non-Papua show their learning English using Kagan's FNP structure. They strongly agree that learning English is easy and enjoyable and it increases their motivation to learn English employing other Kagan's structures.

Table 4. Percentage of students' perceptions in five rating scales

No	Questions (Q 1-10)	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Kagan's FNP structure easier for me to study English material.	50.00	46.20	3.80	0	0
2	Using Kagan's FNP structure allowed me to work with a team to gather information cooperatively	57.70	34.60	7.70	0	0
3	I can better comprehend the working process by using Kagan's FNP structure.	46.20	23.10	30.80	0	0
4	I can communicate; share information; make choices; and resolve issues easily by using Kagan's FNP structure.	46.20	46.20	7.70	0	0
5	Using Kagan's FNP structure helped everyone reach the goal equally.	46.20	23.10	30.80	0	0
6	We learned how to be effective leaders and members from Kagan's FNP structure.	53.80	42.30	0	3.80	0
7	I am utilizing Kagan's FNP structure to foster positive interactions among group members.	69.20	30.80	0	0	0
8	This teaching method makes the English class more engaging.	61.50	38.50	0	0	0
9	I actively participate in all the actions associated with implementing Kagan's FNP framework, including explaining, restating/repeating, constructing, developing, discussing, and applying.	53.80	30.80	15.40	0	0
10	I am challenged to grow intellectually with this structure	46.20	26.90	26.90	0	0

Source: perceptions of cooperative learning approach (CLA) (Wichadee, 2005)

The percentage of students who answered each question on one of five scales is displayed

in Table 4. Point 3 was one example where 46.20 percent strongly agreed (I can better comprehend

the working process by using Kagan's FNP structure) and 5 (Using Kagan's FNP structure helped everyone reach the goal equally), conversely, 30.80% of them assigned a neutral rating. The proportion of students strongly disagreed with number 6 (We learned how to be effective leaders and members from Kagan's FNP structure) was just 3.80. It was clear that just one student demonstrated his lack of participation in a team and that only one statement (number 6) was checked. Moreover, other students were asked to provide additional perspectives. This research employed interviews to explore respondents' opinions regarding applying Kagan's fan-n-pick approach to acquire English vocabulary. Students with high and low learning achievement were the subjects of the interview. For roughly thirty minutes, one-on-one interviews were conducted with each undergraduate student, both Papua and non-Papua. These are their answers to the questions that follow:

1. What do you feel when you have learned English using Kagan's fan-n-pick structure?

2. Do you get advantages learning English with your team using a fan-n-pick structure?

The following study focused on the findings from six undergraduate students, three Papua and three non-Papua students who were interviewed about Kagan's fan-n-pick structure of teaching vocabulary in English. In ten cooperative meetings, the students explain how Kagan's fan-n-pick structure is implemented to help them learn English.

It is fascinating to learn English utilizing Kagan's fan-n-pick structure, which makes me satisfied. I believe that by following the steps of the fan-n-pick technique, which involves group learning and cooperative assignment completion, we are training our collective consciousness. (Interview non-Papua students 14)

Using Kagan's fan-n-pick structure makes learning English enjoyable since it can provide an engaging educational experience. I believe that engaging in a learning group makes learning

exciting because it allows me to support my friends and vice versa. (Interview non-Papua student 18)

Although I had studied English in senior high school, I would prefer to study the language using Kagan's fan-n-pick method. To comprehend the content presented, we can improve our interactions and practice our English with the lecturer and teammates. We worked on communicating our ideas, and the learning procedures made it simple for us to practice vocabulary in English. (Interview Papua student 19)

In primary school, I was quite excited to study English. I believe that I understand how to study English more effectively for sharing my ideas and enhancing English skills such as reading and writing individual assignments in a group situation. I learned English in university, particularly in the first semester when I used Kagan's fan-n-pick structure, which focused on vocabulary acquisition. With this teaching method, I was able to use the fan-n-pick strategy's four steps to examine my English proficiency (interview Papua students 20)

Using Kagan's fan-n-pick method to learn English helps me comprehend and explore the language more, and if all of the lecturers are aware of the requirements for learning English, I believe I would be interested in studying the language (Interview Papua student 22)

My buddies and I are studying English more actively, which makes me proud of myself. It wasn't the same as studying English in senior high school or at a lower educational level. I can now express my viewpoint after speaking with my friend about it. I can learn a lot of new terms and correctly spell the words. I consider employing Kagan's fan-n-pick structure to teach English to be a fantastic accomplishment (non-Papua student 26).

The students also discussed the various benefits they had discovered from learning English vocabulary cooperatively in the group using Kagan's fan-n-pick structure.

Indeed, learning in a group has benefited me since it has allowed me to develop selflessness. When we study alone, we find it difficult to achieve high grades, but when we learn together, we are encouraged to support one another and show selflessness (Interview non-Papua students 14)

My friends can help me understand when I'm confused and they can reveal it to me. This method encourages us to work together to overcome obstacles in our English language learning process (interview non-Papua student 18)

Indeed, it is really helpful to me; I can learn new words with friends when we support one another in the group by giving each other definitions for various new words. I was inspired to expand my vocabulary by learning new terminology when I was learning English using Kagan's fan-n-pick structure (Interview Papua student 19)

Indeed, learning with FNP in a group has several benefits. For example, while some friends find learning English challenging, others find it easy. In the same way that we may learn to read, write, and speak in a group, we can have discussions to increase our comprehension (interview Papua student 20)

Discussion

This study interpreted the data from the cooperative learning approach questionnaire and interview regarding the results of students' perceptions of Kagan's fan-n-pick structure in learning vocabulary. The ten questions consist of five elements of the cooperative learning approach: positive interdependence, individual accountability, group processing, social skills, and face-to-face interaction. Based on the questionnaire results, the highest mean score (4.69) and the highest percentage (69.20%) referred to positive interdependence which described students agreeing that learning English vocabulary using Kagan's FNP structure affects their motivation to succeed in learning by

contributing to the group. The students responded that they used Kagan's FNP structure to support good relationships with the team. It is righted by Hinson (2015) that every team member must put forth effort to ensure success, and each member has specific duties and obligations to complete this cooperative project. The students have to rely on each other to be a successful group.

Most of the students' responses indicate a clear positive impact on cooperative learning using Kagan's structure. This fosters strong relationships among group members and enhances English vocabulary alongside other language skills. It is related to the findings (Hinson, 2015) that students are interested in learning and find it easier to acquire knowledge when using this approach, influencing individual and group learning goals. This aligns with the collaborative nature of learning English with Kagan's fan-n-pick structure, enabling students to recognize, memorize, and construct sentences, aiding in language development studied by (Hadi et al., 2018; Nurdinasari et al., 2022). As a result, the students find learning English with Kagan's structure enjoyable as it encourages diverse perspectives, fosters idea construction, and impacts learning outcomes positively. They believe the strategy promotes cooperative work, knowledge acquisition, and equal learning goal achievement within a supportive atmosphere. This is similar to the findings from Sedita (2005), who found that students learn English using Kagan's FNP structure having various learning tasks, such as providing feedback, answering questions, and presenting orally, enhances vocabulary skills. It is also revealed by Shana et al., (2020) that students are active in performing their ability to understand by practicing one of their English skills. Hakim (2014) added that students show their caring by appreciating, helping, and correcting their peers, which is the value of cooperative learning integrated into vocabulary activities.

Moreover, Papua and non-Papua undergraduate students also perceive that

Kagan's FNP structure develops students' group processing and individual accountability in learning English. It is proven the mean score indicates (4.19) and (46.20%) for group processing while the mean is (4.46) and the percentage (53.80%) for individual accountability. The students moderately agree that using Kagan's FNP structure in learning vocabulary enhances their ability to complete their tasks individually before they discuss the results with their teammates. The students are aided each other in the English learning process when another student decides whether the answer is correct and concludes the result. Hinson (2015) found that students give feedback that Kagan's FNP structure facilitates autonomous learning, collaboration, and knowledge sharing to encourage them to learn in the group. It is related to the findings of Hepratiwi and Tohir (2022) that since students learn English using the FNP structure, they describe their responsibility and confidence in doing self-correction to practice vocabulary within groups. This study demonstrates how undergraduate students perceive the impact of using Kagan's cooperative fan-n-pick structure to improve their learning English motivation. It highlights the development of thinking, communication, collaboration, and team-building skills through vocabulary acquisition and the mastery of receptive and productive language skills. This aligns with the research from Shana et al., (2020) which proved that students use Kagan's FNP in practicing reading a text as part of receptive vocabulary to enrich their lexical acquisition.

This study interprets that the use of Kagan's fan-n-pick structure enhances students' motivation and interest in learning English. Students actively engage in reading opinions, listening to feedback, completing tasks, participating in discussions, and other activities geared toward their learning objectives. They support each other through face-to-face interactions and collaborative efforts to achieve understanding. It is related to research by Al

Matrafi (2016) highlights the emotional engagement encouraged by fan-n-pick, fostering group participation aligned with learning goals. The students emphasize equal opportunities for questions and discussions among students. That is, individual contributions are valued, with students recognizing the importance of their presence for group success. They work collaboratively, understanding the significance of each member's role and collective task completion for optimal results. This cooperative structure motivates students to actively engage in English learning, as noted by Shana et al., (2020), while Hinson (2015) confirmed that Kagan's approach is touted as beneficial for addressing challenges in EFL classes for both Papua and non-Papua students, then Shana et al., (2020) added that a cooperative learning structure provides a relaxed language learning and conducive atmosphere for English acquisition. It is supported that apart from making lessons enjoyable (Al Matrafi, 2016), it cultivates collaborative, critical thinking, and communication skills among students, ultimately fostering a positive learning environment (Nurdianasari et al., 2017). Kagan's fan-n-pick cooperative learning strategy transforms the perspectives of both Papua and non-Papua undergraduate students toward learning English. It emphasizes English learning as an engaging exploration of contemporary global issues to enrich the knowledge of primary school teacher education students rather than a burdensome task. This teaching strategy is similar studied by Saputro et al., (2022) in involving students in language learning along the learning process, all students practice vocabulary building such as explaining and writing the sentences. Therefore, students' perceptions indicate that Kagan's FNP structure has the potential to enhance critical thinking and learning outcomes through group processes that were coincidentally found by (Hadi et al., 2018; Radja et al., 2017).

Furthermore, based on Papua students' interviews especially, strongly advocate for English learning in universities to be structured

through Kagan structures to support the students in reducing anxiety and enhancing cooperation to develop critical thinking, communication, and collaboration skills, thus positively impacting their academic progress and language proficiency. This aligns with the findings of Soleimani and Khosravi (2018) who underscore the benefits of Kagan structures in enhancing English proficiency receptively and productively. Over 200 Kagan structures can assist students in honing their language skills. Moreover, related to the study Saputro et al., (2023) affirmed that Papua students are encouraged to participate in vocabulary-building activities including questioning and answering, expressing opinions, explaining, correctly spelling words, creating sentences, and offering solutions to problems in the social context by utilizing the multimodality as learning media. Therefore, students in the interview section deliver that teachers and lecturers must embrace the Kagan cooperative learning model for English instruction to align with outcome-based education principles in higher education that prioritize specific learning outcomes over mere content dissemination. It is justified by Koh et al., (2017) that the integration of Kagan structures of cooperative learning across various courses highlights their relevance to developing 21st-century skills and specific English knowledge.

Conclusion

This study suggests that Papua and non-Papua undergraduate students feel more excited to learn English using Kagan's fan-n-pick structure. It increases Papua and non-Papua undergraduate students' motivation to learn English more cooperatively, impacting their skills development and learning achievement. The mean scores of positive interdependences as the highest score in this research indicate that the students strongly agree that in Kagan's fan-n-pick structure implementation, they learn English more when gathering in a team to

acquire vocabulary. It proves that they need a good relationship to learn English. They feel learning English more enjoyable by applying the four steps of the fan-n-pick structure. Papua and non-Papua undergraduate students help each other learn new terms easily by working in a team. Thus, they agree that Kagan's structure can help students in the team achieve the learning goal. The second highest mean score of this research is individual and group accountability. It is related to students' responsibility to learn individually and in groups. They got the opportunity to voice their opinion during classroom discussions. They strongly agree that everyone's ideas are important if they are going to be successful. It also impacted their interpersonal and small-group skills based on their perceptions. They strongly agree that they feel actively involved in all activities, for instance, explaining concepts, restating, repeating statements, creating and developing ideas, and applying productive skills (speaking and writing vocabulary). The vocabulary activities support them in increasing their skills of thinking, communication, collaboration, and team-building which are part of Kagan fan-n-pick structure functions that relate to 21st-century skills. In this research, it is apparent that both Papua and non-Papua undergraduate students require diverse learning approaches concerning group processes. Lecturers should emphasize subgroup differentiation based on pre-test results in vocabulary testing to facilitate a better understanding of how students can effectively engage with the fan-n-pick structure. This study advocates for the integration of Kagan cooperative learning structures in higher education at every university, offering students practical English learning experiences that align with outcome-based education principles.

Recommendations

This research presents a new finding in Sorong Regency and the novelty of Kagan's fan-n-pick structure in teaching vocabulary in higher

education. Therefore, this research provides two recommendations for further research:

1. To thoroughly apply Kagan's cooperative learning frameworks to pre-service teachers at all levels of education, this study needs to be repeated on a larger scale, considering lecturers' and students' perceptions in all study programs. This study was designed as a content analysis focused on Papua undergraduate students' perceptions of English learning, which is always a concern for research.

2. Additionally, this research would enable research on a more varied population. Involving more research samples of Papua undergraduate students of primary school teacher education study programs from other universities might strengthen the findings since Papua students are not only in one university in Sorong Regency but also in several private universities that face similar obstacles in learning

English as a foreign language. This offers a chance for a more extensive investigation into other facets of English proficiency in the future. Since pre-service teachers at the primary education level in Indonesia need to master English language teaching in schools to prepare English as obligatory lessons in primary schools.

Acknowledgment

The authors would like to express their gratitude to the students participating in this study

Author contributions

The 1st author was responsible for the data collection. However, all authors made equal contributions during the writing of the paper.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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