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Is Project Based Learning via TikTok Creation Effective in Enhancing Vocabulary of Nursing and Midwifery Terms among STIKes Flora Student?

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ABSTRACT

One of the main challenges in learning English is the low level of vocabulary mastery of nursing and midwifery terms among health institution students. Project Based Learning (PjBL) through TikTok videos has been deemed an effective approach to encourage students to learn vocabulary actively, collaboratively, and contextually, in line with the era of digitalization. This study was a quasi experimental design which aims to find out the effectiveness of PjBL via TikTok creation in enhancing vocabulary mastery of nursing and midwifery terms among STIKes Flora students. The subjects of this study were STIKes Flora students. The nursing category consisted of 51 students in control group and 52 students in experiment group whereas the midwifery category consisted of 47 students in contro group and 21 students in the experiment group. It is used vocabulary test as the instrument. It used descriptive analysis to analyze the data and SPSS 20.0 for statistical analysis. The study found the pretest average score of the nursing students in the experiment group is 49.88 with SD 5.946 while the posttest average score is 74.73 with SD 5,702 and the p-value is 0.001. Whereas the average score of the midwifery students in the experiment group is 51.86 with a standard deviation of 4.820, while in the posttest average score is 75.76 with SD 4.072 and the p-value is 0.001. It is concluded that PJBL via TikTok creation is significantly effective in enhancing STIKes Flora student's vocabulary about nursing and midwifery terms.

Keywords: *PjBL, TikTok, Vocabulary, Nursing and Midwifery Terms, STIKes Flora Students*

INTRODUCTION

One of the main challenges in learning English in health institutions is the low vocabulary mastery regarding nursing and midwifery terms among students. For nursing and midwifery students, understanding professional vocabulary is more than an academic requirement. It is essential for safe practice, accurate documentation, and clear communication with patients and colleagues. Yet many students continue to struggle with the complexity of technical terms challenges in speaking, including linguistic challenges, such as problems with vocabulary because they rely on traditional learning methods that emphasize memorization rather than meaningful use. Without opportunities to apply vocabulary in authentic contexts, learning often

feels disconnected from real clinical practice (Arroyani & Setianingsih, 2025; Jibran, et al., 2024; Paltridge & Starfield, 2019).

In recent years, digital platforms have increasingly encouraged students to engage in language learning. Tools such as TikTok, known for their short and creative video formats, have proven surprisingly useful in boosting motivation and participation in language education settings (Teoh, 2025; Santhi et al., 2025; Maria & Sujarwati, 2025). When combined with Project-Based Learning (PjBL), TikTok becomes more than mere entertainment; it becomes a space where students can collaborate, create content, and use new vocabulary in ways that feel relevant to their lives and future professions. This approach aligns with the core principles of PjBL, which encourage learners to engage in real-world tasks, construct knowledge through hands-on projects, and take ownership of their learning experiences (Bell, 2010; Muttahidah & Zein, 2022).

While previous studies have consistently shown that PjBL enhances student engagement, critical thinking, and language performance, particularly vocabulary development (Alghameeti, 2022; Shafei & Abdul, 2015; Alian & Mohamed, 2025), only a limited number of studies have explored how PjBL combined with TikTok can support the learning of specialized vocabulary in health-related fields. Existing TikTok-based study largely focuses on general English skills or learner motivation, rather than on the mastery of professional terminology. Meanwhile, studies on vocabulary learning in nursing and midwifery programs still relying on traditional approaches such as memorizing word lists or completing textbook-based exercises. Although these methods offer a structured foundation, they rarely provide opportunities for students to actively apply vocabulary in meaningful, professional contexts. This gap highlights the need for technology-enhanced PjBL through TikTok, which aligns more closely with students' learning habits and professional communication demands in the digital era.

Although Project-Based Learning (PjBL) and TikTok have become popular in language education studies (Pamuji et al., 2025; Suripto et al., 2023; Purwoko et al., 2023), research that combines both in English for Specific Purposes (ESP), especially for nursing and midwifery students, is still limited. Previous studies tend to examine PjBL in general EFL classrooms, rather than as a medium for developing discipline-specific vocabulary. Existing study on TikTok in education mainly focuses on general English skills, pronunciation, or motivational aspects, leaving a gap in evidence regarding its role in discipline-specific vocabulary acquisition. Understanding whether PjBL via TikTok video creation can help students master technical vocabulary may offer a refreshing alternative for institutions like STIKes Flora that are seeking more engaging ways to prepare students for clinical communication with, technology-enhanced strategies.

In addition, an initial survey at STIKes Flora showed that many first- and second-year students struggle with English, particularly in memorizing and understanding nursing and midwifery vocabulary. About 70% of students reported vocabulary difficulties, while 86% felt that English classes had been too theoretical and not enjoyable. At the same time, students are highly engaged with social media: 92% actively use social platforms, and 78% use TikTok every day. These findings highlight a strong opportunity to connect learning with students' everyday digital habits. By integrating Project-Based Learning (PjBL) with TikTok video creation, students can learn vocabulary through meaningful, creative projects. Creating short educational videos allows them to actively use nursing and midwifery terms in context, making vocabulary learning more engaging, practical, and relevant to their future professional needs. This study aims to find out whether the PjBL method via TikTok video creation is effective in improving vocabulary mastery of nursing & midwifery terms among STIKes Flora students.

METHOD

Reseach Design

The method used in this research is a quantitative method that employs quasi-experimental research. This is because it tries to find the effects of one variable on another. According to Cresswell (2009), quantitative research is a means of testing objective theories by examining the relationships among variables. These variables can in turn be measured, usually through instruments, so that the data can be analyzed using statistical procedures. This research consists of two groups, namely the experimental group and the control group. The experimental group will be taught using the PjBL method integrated with the creation of educational TikTok videos, while the control group will be taught using conventional methods such as lectures, presentations, and memorization of nursing and midwifery vocabulary, followed by direct presentation in front of the class.

Subject of the Study

This research was conducted at STIKes Flora located at Jl. Abdul Halim Harap No.24 Sei Sikambing B Medan. The subjects of the study were all students of STIKes Flora who are enrolled in the English Language course in the Odd Semester of the Academic Year 2024/2025. The subjects were selected by total sampling technique and divided into two categories of students. The nursing category divided into 2 groups: control group consists of 51 students of semester 2 of DIII of Nursing that have lectures using the communicative teaching approach and experimental group consists of 52 students of second semester of Nursing Undergraduates. Whereas the midwifery category divided into 2 groups; control group consists of 43 students of Semester 2 DIII of Midwifery and experimental group consists of 21 students of second semester of Midwifery Undergraduates Program that have lectures using the PjBL method through TikTok videos. The two groups were measured their vocabulary mastery related midwifery terms before and after having lectures.

The Technique of Data Collection

Data was collected by using a vocabulary test sheet of nursing and midwifery terms (pre-test and post-test) to measure the improvement of vocabulary mastery. In this study, researchers used content validity and to obtain the reliability of the test, the researcher used SPSS 16 program to find out wheather the test is reliable or not.

Table 1. Reliability Statistics

Cronbach's Alpha	N of Items
.809	20

This research utilized three phases of data collection: (1) pretest; at this stage, students were given a test to measure their ability in mastering nursing and midwifery terms before receiving treatment, (2) treatment; at this stage, the researcher will provide lectures to students about 3 times of meetings, each lasting for 80 minutes. The experimental group had lectures using PjBL via the TikTok video creation. The duration of TikTok Video project is about 60 seconds. The TikTok video projects must meet six-criteria covering vocabulary accuracy, vocabulary range, contextual use, pronunciation, creativity, and organization. Whereas the control group had lectures using communicative teaching such giving presentation infront of the class, conversation or swap roleplay with friends and question & answering question. (3) A posttest; at this stage, students were given a posttest to measure their ability in mastering English vocabulary related to nursing and midwifery terms after receiving experiment.

The Data Analysis

The Descriptive Data Analysis

This analysis is used to find out the score of vocabulary test before and after receiving experiment, classify the score in a classification criterion and count the mean dan standard deviation. The classification criterion is based on the assessment of STIKes Flora, as the following table:

Table 2. The Classification of Students Score

No	Interval Score	Predicate	Classify as
1	79-100	A	(Very Good)
2	68-78	B	(Good)
3	56-67	C	(Fair)
4	45-55	D	(Poor)
5	0-44	E	(Bad)

The Inferential Data Analysis

After the data was collected, the researcher analyzed the data consisting of two tests, namely the normality test and the homogeneity test, conducted using SPSS 20 with a significance level of 0.05. Data is said to be normally distributed and homogeneous if the Sig. value is greater than 0.05. The score from the vocabulary test (in experimental and control class) will analyze by using independent sample t-test. If the t-test scoreis lower that the score of t-table (Tt), the null hypotheses is accepted (H0= t test tt) and it means that the word square can give any contribution to increase students' vocabulary mastery.

RESULTS AND DISCUSSION

Results

This research was conducted from May to September 2025 at STIKes Flora. The research subjects were STIKes Flora Students who were taking English for Nursing and Midwifery English courses. The data collection for the research was collected through three stages; pre-test, treatment and posttest.

Analysis Data of Pre-Test Score

The pretest results of vocabulary mastery related to nursing terms among nursing students. The result of pretest score in nursing stundents is shown in the table below:

Table 3. The Pretest Score of STIKes Flora Students Based on Experimental and Control Group

STIKes Flora	Predicate	Clasification	Group			
			Experiment		Control	
			n	%	n	%
Nursing Students	A	Very Good	0	0,0	0	0,0
	B	Good	0	0,0	0	0,0
	C	Fair	9	8,7	5	4,9
	D	Poor	35	44,0	42	40,8
	E	Bad	8	7,8	4	3,9
Midwifery Students	A	Very Good	0	0,0	0	0,0
	B	Good	0	0,0	0	0,0
	C	Fair	5	7,8	2	3,1
	D	Poor	14	21,9	35	54,7
	E	Bad	2	3,1	6	9,4

The table 3 displayed that majority nursing students in the experiment group had poor score (40.8%) and minority score was bad score (3.9%), whereas majority nursing students in the control group had also poor score and minority score was bad score (3.90. While in the midwifery class, majority midwifery students in the experiment group had poor score (21.9%) and minority score was bad score (3.1%), whereas majority midwifery students in the control group had also poor score (54,7%) and minority score was bad score (9.4%).

Treatment Phase

After having pretest, this study conducted 3 meetings for the treatment phase both in the experiment group and control group. The treatment phase was conducted from 30 July until August 13, 2025. The experiment group was taught by using PjBL via TikTok video project while the the control was taught by using traditional approach via communicative teaching approach. The observation result of the the meeting was as the following:

1. Experiment Group

   The students in the experiment group in the nursing class divided into 7 groups. All the students in the experiment group were present in three meeting. They followed the steps of lectures using PjBL via TikTok video creation. All the students were anthusiast in producing the TikTok video project. It could be seen from the result, only 2 groups have not uploaded the video yet video at the end of the last meeting. Whereas in the students in the midwifery experiment group divided into 4 groups. All the students in the experiment group were present in three meeting. They followed the steps of lectures using PjBL via TikTok video creation. All the students look anthusiast and happy following the steps of the method and in producing the TikTok video project. It could be seen from the result, all groups could uploaded the TikTok video project at the end of the last meeting.
2. Control Group.

   In the nursing control group, out of all the lecture sessions, only 7-12 students or about were always willing to present, practice memorization, or engage in conversations in front of the class. Meanwhile, in the midwifery control group, only 5-10 students were always willing to present, practice memorization, or engage in conversations in front of the class. Students appeared slightly tense when performing in front of the class. eventhough the material was easy to memorize or practice in front of the class, but they look tense, anxious and tremor when performing.

Analysis Data of Post-Test Score

After having pretested and treatment, the research team then provided posttest. The posttest results served as a fundamental consideration to determine whether there were differences in students' scores before and after the treatment. The posttest score in the experiment group and nursing group in the nursing class can be seen in as the following table:

Table 4. The Post-test Score of STIKes Flora Students Based on Experiment and Control Group

STIKes Flora	Predicate	Classification	Group			
			Experiment (n= 52)		Control (n= 51)	
			n	%	n	%
Nursing Students	A	Very Good	15	14,6	0	0,0
	B	Good	31	30,1	0	0,0
	C	Fair	6	5,8	9	8,7
	D	Poor	0	0,0	38	36,9
	E	Bad	0	0,0	4	3,9

	A	Very Good	5	7,8	0	0,0
	B	Good	16	25,0	0	0,0
Midwifery Students	C	Fair	0	0,0	9	14,1
	D	Poor	0	0,0	32	50,0
	E	Bad	0	0,0	2	3,1

Based on the table 4 above, it is known that majority nursing students in the experiment group after had good score (30.1%) and minority score was bad score (5.8%), whereas majority nursing students in the control group had poor score and minority score was bad score (3.9%). While in the midwifery class, majority midwifery students in the experiment group had poor score (25.0%), whereas majority midwifery students in the control group had poor score (50 %) and minority score was bad (9.4%).

The Results of the Descriptive Statistical Analysis

The results of the descriptive statistical analysis of the pretest scores for vocabulary mastery of nursing and midwifery terms among STIKes Flora students are shown in the table below:

Table 5. Descriptive Statistics of Pretest and Pretest Scores of STIKes Flora Students

STIKes Flora Students			n	Min	Max	Mean
Nursing	Experiment	Pre-test	52	36	62	49,88
		Post-test		64	88	74,73
	Control	Pre-test	51	41	57	49,59
		Post-test		41	61	50,88
Midwifery	Experiment	Pre-test	21	43	59	51,86
		Post-test		69	84	75,76
	Control	Pre-test	43	42	61	49,58
		Post-test		42	61	52,19

Based on the table above, it was found that the pretest mean score of experimental groups in nursing class was 49,88 and classified as poor. That increases, the posttest mean score became 74,73 and classified as good. The difference of pretest and posttest score was 24,85. Meanwhile, the mean score of control group in the nursing class was 49.59 and classified as poor. The mean score of posttests became 50.88. The difference score between pretest and posttest in the nursing control group was about 1.29 point.

While in the midwifery category it was found that the pretest mean score of experimental groups was 51,86 and classified as poor. The posttest mean score of the experiment group increased 75,76 and classified as good. The difference of pretest and posttest score was 23, 9. Meanwhile, the mean score of control group in the midwifery class was 49.58 and classified as poor. The mean score of posttest became 52.19. The difference score between pretest and posttest in the midwifery control group was about 2.61 point.

The graphic visualization of score increasement of the nursing and midwifery students of STIKes Flore before and after having lectures can be seen below:

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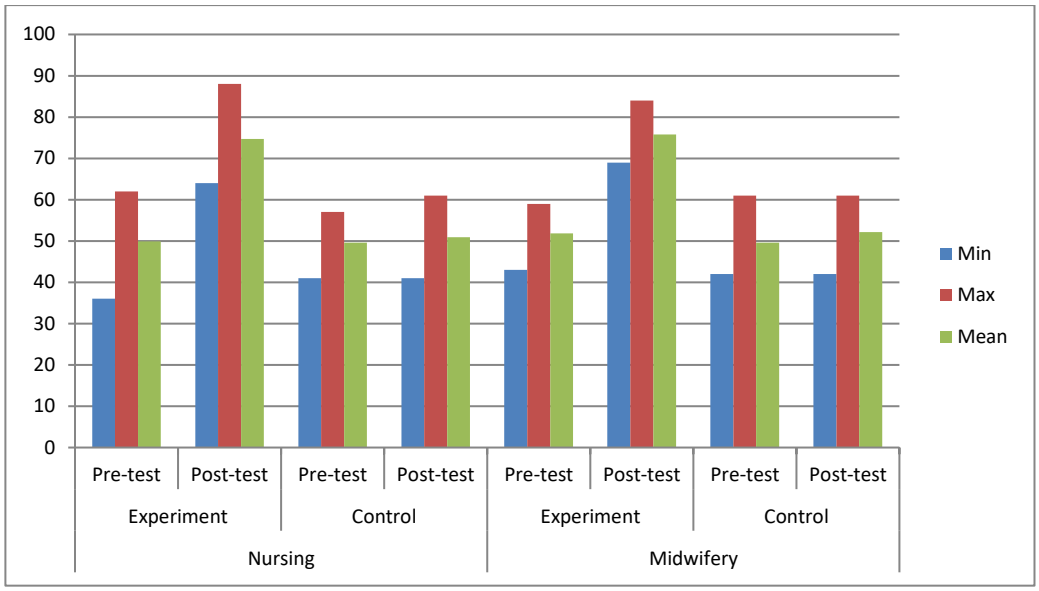

Picture 1. The Graphic of Vocabulary Score Increasement of STIKes Flora Students

Test of Normality

The Kolmogorov-Smirnov formula was used to investigate the normality of the pre-test and post-test data in the experiment & control group. The normality results are tabulated as follows:

Table 6. Normality Test of Pre-test and Post-test Results of STIKes Flora Students

STIKes Flora Students			Kolmogorov-Smirnov[a]			Shapiro-Wilk		
			Statistic	df	Sig.	Statistic	df	Sig.
Experiment Group	Pre-test	Nursing	.086	52	.200*	.983	52	.667
		Midwifery	.148	21	.200*	.951	21	.349
	Post-test	Nursing	.081	52	.200*	.985	52	.736
		Midwifery	.141	21	.200*	.962	21	.553
Control Group	Pre-test	Nursing	.105	51	.200*	.972	51	.260
		Midwifery	.111	43	.200*	.973	43	.387
	Post-test	Nursing	.086	51	.200*	.977	51	.421
		Midwifery	.105	43	.200*	.980	43	.646

Based on the normality calculation, the experimental group in both category nursing and midwifery has similar result, the Asymp.Sig. (2-tailed) for the pre-test results is 0.200, which indicates that the probability value is higher than the significance level (0.200 > 0.05). Meanwhile, the Asymp.Sig.(2-tailed) for the post-test results is also 0.200, indicating that the probability value is higher than the significance level (0.200 > 0.05). While the normality calculation in the control group both nursing and midwifery students was also similar to the experimental group from both categories.

Test of Homogeneity of Variances

Levene's Statistics Formula is used to investigate the homogeneity of variances from the pre-test and post-test results of STIKes Flora students in the Intervention Group. The homogeneity of variances is tabulated as follows:

Table 7. Test of Homogeneity of Variances of of Pre-test and Post-test of STIKes Flora Students in Experimental & Control Group

Group	Levene Statistic	df1	df2	Sig.
Experiment	18.523	1	71	.000
	19.934	1	71	.00
Control	12.201	1	92	.000
	13.712	1	92	.000

The table shows that the homogeneity of variances of the pre-test and post-test results of STIKes Flora students in the experimental group indicates a significance value that is higher than the significance level (0.001 < 0.05) and (0.001 < 0.05). Whereas the homogeneity of variances of the pre-test and post-test results of STIKes Flora students in the control group has a significance value that is higher than the significance level (0.001 < 0.05) and (0.001 < 0.05). those meant that H0 was accepted for H0 stated the sample had homogeneous variances. While the Ha was accepted because Ha stated the sample had homogeneous variances. It can be concluded that both experiment and control group had homogeneous variances.

Calculation of t-test

The difference in mastering nursing and midwifery terms among STIKes Flora students between the experiment group that had lectures using the PJBL method through TikTok videos and the control group that had lectures using the communicative approach is as follows:

Table 8. The Differences in Mastering Nursing and Midwifery Terms among STIKes Flora Students

STIKes Flora	Experiment group		Control Group		*Pvalue**
	Mean	SD	Mean	SD	
Nursing	(n= 52)		(n= 51)		
	74,73	5,702	50,88	4,072	0,001
Midwifery	(n= 21)		(n= 43)		
	75,76	4,170	52,19	4,516	0,001

***** *independent t-test*

Based on the table above, it is known that the average score of vocabulary mastery of nursing terms among STIKes Flora nursing students in the experiment group is 74.73 with a standard deviation of 5.702, while in the control group the average score is 50.88 with a standard deviation of 4.072 and the p-value is 0.001. Meanwhile, the average score of vocabulary mastery of midwifery terms among STIKes Flora midwifery students in the experiment group was 75.56 with a standard deviation of 4.170 and the p-value is 0.01, whereas in the control group, the average score was 52.19 with a standard deviation of 4.516, and the p-value is 0.00.

The result of paired t-test between the pre-test and post-test on the vocabulary mastery regarding nursing and midwifery among STIKes Flora students as the following:

Table 9. The Difference in Vocabulary Mastery of Nursing and Midwifery Terms among STIKes Flora Students

Vocabulary Mastery Regarding Nursing and Midwifery Terms among STIKes Flora Students			N	Mean	SD	SE	Pvalue*
Nursing	Experiment	Pre-test	52	49,88	5,946	0,825	0,001
		Post-test		74,73	5,702	0,791	
	Control	Pre-test	51	49,59	3,775	0,529	0,096
		Post-test		50,88	4,702	0,658	
Midwifery	Experiment	Pre-test	21	51,86	4,820	1,052	0,001
		Post-test		75,76	4,170	0,910	
	Control	Pre-test	43	49,58	4,107	0,626	0,006
		Post-test		52,19	4,516	0,689	

******Paired t-test*

Discussion

The objective of this study is to examine whether project-based learning (PjBL) via TikTok video creation is effective in improving students' mastery of nursing and midwifery vocabulary at STIKes Flora. The finding of the study on pretest result is related to answer this objective. The pretest was conducted in the experimental and control groups in both category nursing and midwifery to identify students' vocabulary mastery prior before having treatment. The pretest results show that students from both groups, despite differences in academic level (D3 and S1) had comparable initial vocabulary mastery, with most students falling into the poor category. This similarity was further supported by the mean pretest scores, which ranged closely between 49.58 to 51.86 across groups. It indicated that all the students have the same level of vocabulary, categorized as poor. This finding is very important in quasi experimental study. As establishing equivalent prior ability is essential to make posttest improvements to be more confidently attributed to the instructional intervention rather than pre-existing differences (Hallberg, *et al*, 2018). Such equivalence helps minimize selection bias and strengthens the internal validity of the research design (Kim & Steiner, 2019; Cook, *et al*, 2018).

While the finding of the normality and homogeneity tests of the study indicated that the data met the assumptions for parametric analysis. The normality test showed that the Asymp. Sig. (2-tailed) values for both the pre-test and post-test in the nursing and midwifery experimental groups were 0.200, which exceeded the significance level ($p > 0.05$), indicating normally distributed data. Similar results were obtained for the control groups. In addition, the homogeneity of variance test revealed that the significance values for both pre-test and post-test scores were above the significance level ($p > 0.05$), confirming homogeneous variances across groups. Therefore, the pre-test and post-test data for both nursing and midwifery classes were normally distributed and homogeneous, indicating that the data were statistically valid and reliable for further analysis (Blanca et al., 2017; Zhou et al., 2023).

On the other hand, the result of the study also found that there was an improvement of score after having lectures by using PjBL method via TikTok video creation. The experimental group both in nursing and midwifery class mostly increased the level of score from poor into good category. Furthermore, it was found that there was a significant distinction in vocabulary score enhancement among the STIKes Flora students who were had lecture using PjBL via TikTok videos. The evidence was taken from the result of descriptive data analysis, the mean difference of post-test scores in the experiment group of nursing students is 74,73 – 50.88 = 23.85 whereas the mean differences in the experiment group of midwifery students is 75.76-52.19 = 23,57. The posttest mean score of the control group in nursing and midwifery class also increases, however the experimental group significantly increased more significant than the control group. The significant improvement in posttest scores suggests that the treatment had a positive effect on students' learning outcomes, consistent with interpretations in quasi-experimental designs (Fraenkel, *et al*, 2019).

Moreover, the findings of independent t-test showed that the average score of nursing students in the experimental group is 49.88 with a standard deviation of 5.946, while the post-test result was 74.73 with a standard deviation of 5.702 and the p-value is of 0.001. Meanwhile, the average score of vocabulary mastery of midwifery terms among STIKes Flora midwifery students in the experimental group for the pre-test is 51.86 with a standard deviation of 4.820, while the post-test result is 75.76 with a standard deviation of 4.170 and it is obtained the p-value 0.001. So those can be concluded that there is a significant difference between the pre-test and post-test results in the vocabulary mastery of nursing and midwifery terms among STIKes Flora midwifery students who had lectures using the PjBL via TikTok videos. In contrast the average score of vocabulary mastery of midwifery terms among STIKes Flora in the control group showed there is no significant difference between the results of the pre-test and post-test in the vocabulary mastery of nursing and midwifery terms among STIKes Flora

students who had lectures using communicative teaching approach. It means that PjBL via TikTok video is significantly more effective in improving vocabulary mastery of nursing and midwifery terms among STIKes Flora students compared to communicate teaching approach.

The findings above indicated that PjBL via TikTok video creation is more effective than communicative teaching method in this digital era. Integrating PjBL with TikTok offers a more engaging and meaningful approach to language learning by combining purposeful, student-centered tasks with a familiar and highly interactive digital platform. While communicative methods often rely on classroom-based interaction alone as we can see from the result of treatment phase in the control group only about 5-10 students willing to do presentation in front of the class, Students appeared slightly tense when performing in front of the class. Eventhough the material was easy to memorize or practice in front of the class, but they look tense, anxious and tremor. On the other hand, when students produce TikTok videos, they look anthusiast and happy following step by step of PjBl method via TikTok video creation as can be seen the treatment phase observation. Students reported positive learning experiences, including enjoyable learning activities, opportunities to identify and reduce speaking errors through retakes or remixing audio, increased motivation and creativity, and access to abundant English-learning resources within the TikTok (Kaban, 2023; Hiasa et al., 2022). These findings suggest that PjBL via TikTok not only supports vocabulary mastery but also communicative competence by promoting authentic language production, digital literacy, and learner autonomy. By integrating content creation with collaborative projects, TikTok-based PjBL creates a richer learning environment that enhances personalization, creativity than communicative teaching method.

In the long term, the use of PjBL through TikTok video creation offers meaningful pedagogical benefits for the ESP curriculum, especially in nursing and midwifery education. By creating short educational TikTok video projects, students actively use specialized vocabulary in realistic and engaging contexts, which helps strengthen long-term retention and understanding (Wulandari & Mandasari, 2023; & Sen-Akbulut, 2024). Social media platforms such as TikTok, YouTube, and Instagram provide authentic, multimodal, and interactive learning environments that align with the needs of digital-native learners (Albiladi & Alshareef, 2019). In a typical vocabulary task, students might be given word lists, flashcards, and book exercises (Nation, 2017). By contrast when they create TikTok-style videos, the learning production cycle becomes digital, multimodal, and embedded in their everyday media practices. It connects ESP with students' digital lives; transforming vocabulary practice into an active, collaborative, and authentic experience. From a curricular perspective, this approach supports a shift from traditional textbook-centered instruction toward task-based, technology-enhanced ESP learning. As a result, the ESP curriculum becomes more authentic, flexible, and closely aligned with the real communication demands of contemporary healthcare practice.

However, certain challenges also emerge. Teachers must actively mediate and guide students' social-media use to reduce risks (inappropriate content, privacy problems, online risks) and to make activities pedagogically meaningful. TikTok's highly entertaining nature can distract students from educational goals. Other potential challenges include is screen time and privacy. In this case, educators should manage screen time and consider the privacy implications of using a public social media platform with students. Equity of access is also need to be calculated. Technical skills, access to devices, and internet connectivity may also affect who can join social media video projects. Not all students may have equal access to the necessary devices or internet connection to participate. Teacher may need training to effectively integrate TikTok into their lessons and manage classroom projects on the platform (Chinner, et all, 2025; Jain, et al, 2025; *van de Werfhorst, et all 2022*; Hidayah, 2022; Judijanto, 2024).

Despite the positive findings, this study has several limitations that should be acknowledged. Firstly, the experimental and control groups differed in academic background,

with one category class consisting of D3 students and the other of S1 students. Because pretest results were used to establish equivalence in prior vocabulary ability, differences in educational level, learning experience, and academic maturity may have influenced students' responsiveness to the instructional treatment. This can limit the generalizability of the findings and suggest caution in attributing all posttest gains solely to the intervention (Puimege, 2025). Fortunately, the student's vocabulary mastery level in this study were similar so the bias can be avoided and the the data were valid. Next, the treatment was conducted over a relatively short duration of only three instructional meetings. While measurable vocabulary improvement was observed, a longer implementation period might yield more stable and sustained learning outcomes, particularly in terms of long-term retention and transfer of vocabulary knowledge to clinical communication contexts (Dan, *et al,* 2025; Roskos, *et al*., 2013). Students' initial enthusiasm and motivation toward using a popular social media platform could have temporarily enhanced engagement and performance, potentially inflating posttest scores.

CONCLUSION

This study found (1) all the subject categorized as poor for the level of vocabulary mastery before having treatment, (2) the subject in the experiment groups increase their level of vocabulary mastery into goa significant differences in vocabulary score enhancement among the STIKes Flora students who were had lecture using PjBL via TikTok videos and those who had lecture using traditional method via communicative approach, the point increased about 23,87 in nursing experimental group and 23,58 in midwifery experimental group, (3) the normality and homogeneity of variances test indicated the data were distributed normally and homogeneous and (4) independent t-test resulted that PjBL via TikTok video creation is signifantly effective in improving the vocabulary mastery of nursing and midwifery terms among STIKes Flora students. Future studies should extend the duration and number of intervention meetings to examine whether the observed learning gains are sustained over time. The relatively short intervention period may not fully capture the long-term impact of TikTok-based PjBL on vocabulary retention, as students' motivation and performance may have been influenced by their excitement in using TikTok rather than by the instructional method alone.

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