Influence of Collaboratıve Learnıng on Vocabulary Knowledge Among Language Learners ın a Local College: A Mıxed Methods Inquıry

ABSTRACT

This study explores the influence of collaborative learning on vocabulary knowledge among language learners in a local college. The research aims to determine whether students who engage in collaborative learning activities exhibit better vocabulary knowledge compared to those study individually. A mixed methods approach was used, combining both quantitative and qualitative data. A survey was administered to 415 language learners to assess their vocabulary knowledge and frequency of participation in collaborative learning activities, while semi-structured interviews were conducted with a subset of 14 students to gain deeper insights into their experiences. The results revealed a positive correlation between collaborative learning and vocabulary knowledge. Students who frequently participated in group discussions, peer teaching and collaborative exercises demonstrated higher vocabulary retention and application. The qualitative data further highlighted that students value the social interaction and peer feedback in enhancing their learning process. These findings suggest that incorporating more collaborative learning strategies into language instruction could significantly benefit vocabulary development. The study recommends further integration of group-based learning activities to support language learners in enhancing their vocabulary knowledge.

Keywords: *Collaborative learning, vocabulary knowledge, language learners, mixed methods, peer learning*

1. INTRODUCTION

Vocabulary knowledge is an important component of linguistic competence. Along with phonetics/pronunciation and grammar, vocabulary is one of the most important components needed to learn a foreign language. It is hard to achieve any level of language fluency without understanding the vocabulary. However, the neglect of vocabulary in language teaching and learning studies has been a topic of controversy for a long time (Afzal, 2019). In Saudi Arabia, Arab students typically struggle to communicate in English because of a lack of vocabulary, mismatched teaching techniques, and an unsuitable learning environment. Studies have highlighted some of the flawed methods used in English instruction and learning. English is taught by Saudi Arabian teachers using traditional methods. Students perform poorly because they are taught in their native language more often than in the target language (Afzal, 2019). In the Philippines, vocabulary knowledge among senior high school students is crucial for comprehension and communication. Students must fulfill the competencies needed by Department of Education (DepEd), as well as to endure other reading requirements, which are typically academic. Some of the causes of limited vocabulary among the students are poverty, a lack of exposure to meaningful discussions, inadequate reading comprehension, and vocabulary teaching (Santillan & Daenos, 2020). According to the previously mentioned citations, it is well known that students struggle in every particular setting to attain vocabulary knowledge worldwide. This is a worldwide as well as a national phenomenon. In response, the researcher carried out this investigation to look at the underlying problems and difficulties. The purpose of this research is to increase awareness among relevant authorities, including the Department of Education (DepEd) and the Commission on Higher Education (CHED), about the importance of reviewing and improving their curricula and instructional practices in order to support students' vocabulary knowledge. Unlike previous studies conducted in broader national contexts (Ariffin, 2021; Ahmadian and Tajabadi, 2020; Tseng et al.), this study focuses on a specific context, providing important insights that

educational institutions can utilize to create supportive initiatives aimed at understanding the influence of collaborative learning on the vocabulary knowledge of students.

2. LİTERATURE REVİEW

2.1. Theoretical Framework

The study aligns with Stanovich's (1986) theory of Matthew Effect. Students with small vocabulary sets are likewise affected by the Matthew effect. According to this theory, early exposure to rich oral language contexts helps students grow their vocabulary and make it more complex while students who struggle with reading do not read, which results in a lack of possibilities for vocabulary development. Students' written and spoken vocabulary suffers as a result. Students will essentially have limited vocabularies when they have limited word experiences and they may avoid reading and oral language activities in school, increasing the gap between themselves and their peers with more developed vocabulary knowledge.

This theory suggests that the earlier the students are exposed with larger initial vocabularies, the more they increased their exposure to new vocabularies. Providing English learners with opportunities to be self-confident will allow them to feel efficacious in school. Therefore, there is substantial evidence that Matthew Effect Theory should be representative of student actual vocabulary development.

3. METHODOLOGY

3.1. Research Design

In this study, the researcher used the convergent parallel approach of mixed methods. It is a non-experimental design incorporating the elements of quantitative and qualitative approaches. It is convergent parallel considering that the study uses both quantitative and qualitative approaches of research and that both their data collection and analysis procedures happened simultaneously. Subsequently, outcomes from the two approaches are correlated to better comprehend the research topic. Additionally, it is often used to control a weakness in one method with the strength of another. It can also be convenient in enriching quantitative data through gathering of open-ended qualitative data (Creswell & Plano Clark, 2018).

3.2. Participants of the Study

Quantitative Phase

In the quantitative phase, students are in this study. These individuals will be the sources of first-hand information as supporting evidences to examine the relationship of collaborative learning to student's vocabulary knowledge. Moreover, the students answer the set of questions provided in the survey questionnaire with regards to the relationship of collaborative learning to student's vocabulary knowledge.

Qualitative Phase

In contrast, qualitative research typically involves purposeful subject selection. For this phase, a non-probability sampling method, specifically purposive sampling, was used. Participants were chosen based on their ability to provide valuable insights that would inform the research questions and deepen the understanding of the phenomenon under study (Kuper et al., 2008). A total of 14 students participated in this phase: seven (7) were selected for in-depth interviews, and the remaining seven (7) were chosen for the focus group discussion. All participants were required to be education students of KCAST and STCAST.

3.3. Instrumentation and Data Gathering Process

To comprehensively explore the collaborative learning and vocabulary knowledge of education students, this study utilized both quantitative and qualitative research tools. The quantitative component involved a survey questionnaire with a Likert scale, validated by experts, to measure collaborative learning and vocabulary knowledge. For the qualitative portion, in-depth interviews guided by grand tour questions designed by the researcher provided deeper insights and experiences. This mixed-methods approach allowed the study to capture both measurable data and rich, descriptive narratives.

3.4. Data Analysis

The quantitative data is being analyzed using descriptive statistics and Pearson-r. Here are the discussions to each of the statistical tool: (1) Mean is being used to determine the level of collaborative learning and vocabulary knowledge of students, to answer research questions or problem number 2; (2) Pearson-r is

being used to determine the significant relationship between collaborative learning and vocabulary knowledge of students; (3) Standard Deviation is being used to measure how spread out the responses of the respondents are; (4) The survey data, which is being collected, serving as the basis for in-depth analysis. Upon retrieval of the questionnaires, the data is tallied and treated accordingly. The survey data is being analyzed using Statistical Package for the Social Sciences (SPSS) for both descriptive and inferential statistics. These statistical treatments will be applied to ascertain the status of students.

In qualitative data analysis, the responses of participants are being transcribed, organized and reduced into themes through a process of coding and condensing the codes. The data is presented using figures, tables or a narrative. In the process of analyzing the qualitative data, the researcher fully immersed into the rich, descriptive data and using processes such as coding and categorizing to organize these data. The goal was to develop themes that could be used to describe the experience from the perspective of those that lived in it of which in this particular study are students of the Kapalong College of Agriculture, Sciences and Technology and Santo Tomas College of Agriculture, Sciences and Technology. Hence, qualitative analysis was an iterative process; meaning that a final analysis of the data will be achieved by repeatedly reading and re-reading the data and repeatedly developing themes and refining these themes.

3.5. Research Ethics

To maintain the trust of the English teacher education students at KCAST and BTVTEd students at STCAST, this study placed paramount importance on their safety, anonymity, full protection, and confidentiality. Steps were meticulously taken to address these ethical considerations with the aim of upholding the participants' trust throughout the duration of the research. Prior to conducting the interviews, the researcher secured the participants' consent and prearranged the interview schedule to prevent any conflicts with their academic commitments or other responsibilities. This proactive approach aimed to minimize any disruptions to the participants' schedules caused by the researcher's presence and to mitigate the necessity of rescheduling or canceling the interviews.

3. RESULTS AND DISCUSSION

Level of Collaborative Learning

Shown in Table 2 is the level of collaborative learning among education students in Kapalong College of Agriculture, Sciences and Technology and Santo Tomas College of Agriculture, Sciences and Technology. It obtained an overall mean score of 4.34 with a descriptive equivalent of Strongly Agree, which means that the education students manifested always their collaborative learning. The variable of the study which is the collaborative learning which has three indicators namely: positive interdependence, promotive interaction and individual accountability.

Table 2. Level of Collaborative Learning

Variables and Indicators	Mean	Description
A. *Positive Interdependence*		
1. Finding myself productive when learning with my groupmates than learning alone.	3.89	Agree
2. Working confidently and productively in groups.	3.88	Agree
3. Valuing the sharing of ideas with peers.	4.26	Strongly Agree
4. Exploring things with my groupmates effectively.	4.13	Agree
5. Feeling happy about the success of the group as a whole.	4.60	Strongly Agree
Category Mean	**4.15**	**Agree**
B. *Promotive Interaction*		
1. Sharing my ideas and experiences with my groupmates.	4.18	Agree
2. Listening to my groupmates when they are talking.	4.53	Strongly Agree
3. Giving suggestions to solve group problems.	4.26	Strongly Agree
4. Showing equal respect to anyone.	4.62	Strongly Agree

5.	Sharing my learning experiences with my groupmates.	4.31	Strongly Agree
Category Mean		**4.38**	**Strongly Agree**

C. *Individual Accountability*

1.	Participating in the group tasks.	4.51	Strongly Agree
2.	taking the group task seriously.	4.52	Strongly Agree
3.	doing my best even if no one is watching.	4.43	Strongly Agree
4.	making positive contributions of the other members of the group.	4.45	Strongly Agree
5.	encouraging everyone to do their best to achieve group goals.	4.52	Strongly Agree
Category Mean		**4.49**	**Strongly Agree**
Overall Mean		**4.34**	**Strongly Agree**

As to the level of collaborative learning considering its three indicators, individual accountability obtains the highest mean of 4.49 which was described as strongly agree means that it is always manifested by the students. On the other hand, positive interdependence obtained the lowest overall mean of 4.15 described as agree which means that it is oftentimes manifested by the students. Lastly, the second highest overall mean of 4.38 was obtained by the indicator promotive interaction. It was described as strongly agree which is always manifested by students.

This result indicates that collaborative learning is regarded by the respondents as always manifested which is in congruence with the study of (Fitriasari & Apriansyah 2020), they emphasized that collaborative learning is an approach which helps students build essential critical thinking and interpersonal skills that are vital for success in the modern educational landscape. Moreover, studies have shown that collaborative learning are closely linked to academic performance and professional success, as they enable students to communicate with others, and demonstrate their knowledge and understanding of a subject. It was also added by Ghavifekr (2020) that students enhance their leadership skills through collaboration and connect to one another through other forms of social interaction. Further, it was added by Baliyan et al. (2021) that collaborative method emphasizes getting learners involved in group learning as opposed to traditional lecture-based training, which frequently emphasizes memorization.

Level of Vocabulary Knowledge

Shown in Table 3 is the level of collaborative learning among education students in Kapalong College of Agriculture, Sciences and Technology and Santo Tomas College of Agriculture, Sciences and Technology. It obtained an overall mean score of 4.34 with a descriptive equivalent of Strongly Agree, which means that the education students manifested always their collaborative learning. The variable of the study which is the collaborative learning which has three indicators namely: positive interdependence, promotive interaction and individual accountability.

Table 3 Level of Vocabulary Knowledge

Variables and Indicators		Mean	Description
D. *Proficiency*			
1.	Reading many reading materials to enhance my vocabulary.	4.09	Oftentimes
2.	Repeating the new word orally several times.	4.12	Oftentimes
3.	Knowing which words are important for me to learn.	4.27	Always
4.	Reviewing my vocabulary regularly to reinforce retention and enhance language proficiency.	4.07	Oftentimes
5.	Guessing the meaning of new word using background knowledge and the immediate and wider context.	4.17	Oftentimes
Category Mean		**4.14**	**Oftentimes**

E. *Ability*

1.	Finding my own way of learning new words.	4.26	Always
2.	Having a plan of accumulating words.	4.08	Oftentimes
3.	Using vocabulary section or glosses in my textbook to learn new words.	4.07	Oftentimes
4.	Using common sense and knowledge of word when guessing the meaning of word.	4.24	Always
5.	Creating mental images of the words I learn.	4.05	Oftentimes
Category Mean		**4.14**	**Oftentimes**

F. *Concentration*

1.	Paying attention to the pronunciation of a new word.	4.41	Always
2.	Extending and improving my ability to concentrate for longer periods of time in checking the meaning of new words in dictionaries.	4.29	Always
3.	Ensuring the accurate spelling of newly written words by giving careful attention and repetition.	4.44	Always
4.	Focusing only on the words that is much difficult to understand.	4.18	Oftentimes
5.	Limiting my social media enhances my concentration during academic activities.	4.02	Oftentimes
Category Mean		**4.27**	**Always**
Overall Mean		**4.18**	**Oftentimes**

As to the level of vocabulary knowledge considering its three indicators, concentration obtains the highest mean of 4.27 which was described as always means that it is always manifested by the students. On the other hand, proficiency and ability both obtained the lowest overall mean of 4.14 described as oftentimes which means that it is oftentimes manifested by the students.

This result indicates that vocabulary knowledge is regarded by the respondents as oftentimes manifested. This is in congruence with the study of (Viera, 2019), she emphasized that learning vocabulary does not only mean the learning of new words but also to know their functions and applicability to different contexts and situations. Moreover, studies have shown that vocabulary knowledge is closely linked to effective writing and communicating abilities, as they enable students to choose the right words to express their ideas and convey the appropriate tone and meaning in their writing. It also allows individuals to understand and interpret the writing of others, enhancing their ability to engage with a variety of texts and ideas. It was also added by LARRC et al. (2019) that vocabulary knowledge is essential for oral text comprehension, as word meanings are the building blocks of passage and text meaning. Further, it was added by Alsowat (2022) that vocabulary knowledge comprised at least two dimensions: vocabulary breadth and vocabulary depth. Vocabulary breadth points to the number of words that a learner knows, whereas vocabulary depth is related to the quality of a learner's vocabulary knowledge and how well a learner uses and masters the meaning of a word or a set of words.

Lived Experiences of Education Students with Regard to their Collaborative Learning and Vocabulary Knowledge

Five essential themes are created based on the in-depth interviews and focus group discussion of the participants on the first research question. It deals with the lived experiences of the Students regarding to their collaborative learning and vocabulary knowledge. The essential themes that emerged from the transcriptions of the participants' responses for research question number one consisted of overarching themes which are summarized in the said table.

Table 4. Lived Experiences of Education Students with Regards to Collaborative Learning and Vocabulary Knowledge

ISSUES PROBED	CORE IDEAS	CODE / CATEGORIES	ESSENTIAL THEME	THEORETICAL SUPPORT
Effects of Collaboration in Group Work	• Engaging when group members collaborate. • Rewarding when group members exchange ideas with collaboration. • Gaining confidence when speaking English with groupmates. • Seeing group work as an opportunity for growth, collaboration, and improvement of communication skills. • Feeling great when everyone shares ideas.	Positive Group Work Experience	Experiencing Engagement amidst Challenges in Group Dynamics	Social Interdependence Theory
	• Frustrating when group members don't contribute equally or when things become disorganized. • Challenging in terms of coordinating with others because of different learning styles and opinions. • Worrying not being recognized or heard.	Challenges in Grouping Dynamics		
Strategies and Perspectives on Vocabulary Retention Among Students	• Incorporating visual aids to enhance vocabulary retention of students. • Engaging students in interactive activities. • Using of game-based learning as part of retaining vocabularies. • Applying learned vocabularies in real-life situations.	Vocabulary Retention Strategies	Enhancing Learning Through Active Engagement and Collaboration	Social Learning Theory

	• Developing an engaging and meaningful learning with groupmates. • Seeing group activities as fun and engaging process. • Making oneself participative in every group work.	Building Positive Group Relationships		
Impact of Group Work on Students' Vocabulary Knowledge	• Improving communication skills that adapts to the languages of different audiences. • Reflecting how challenges in group work can have a positive or negative impact on vocabulary learning. • Expressing ideas to reinforce vocabulary.	Enriching Vocabulary	Enriching vocabulary while Navigating Communication Challenges	Social Interactionist Theory
	• Misunderstanding due to differences in language proficiency, learning styles and cultural backgrounds. • Misunderstanding and unclear instruction leading to confusion.	Encountering Misunderstanding		
Strategies and techniques to retain memories from previous discussions.	• Taking notes to review the information being written. • Reviewing vocabulary lists and used it in different contexts for memory retention.	Reviewing and Retention Techniques	Enhancing Learning Through Cognitive Strategies	Cognitive Learning Theory
	• Reflecting what is learned and connects it to prior knowledge. • Using mnemonic devices to connect new vocabularies to personal experiences.	Reflective and Associative Learning		

Positive and Negative Experiences in Student Collaboration	• Making connections and develop a sense of camaraderie when working together as a group. • Learning from different perspectives that enriches understanding. • Increasing of motivation and improvement of communication skills. • Gaining confidence in speaking and learn more from peers with different perspectives. • Building friendships and professional networks.	Positive Social Interaction and Personal Growth	Experiencing Social and Emotional Dynamics for Collaborative Learning	Sociocultural Theory
	• Dealing with unequal participation that leads to frustration and unbalanced workload. • Dealing with conflicts and disagreements due to different opinions or ideas within the group. • Talking off-topic during group work and get distracted that creates barriers to effective learning. • Feeling left out due to over reliance of a dominant member.	Negative Group Work Dynamics and Challenges		

The results of the study indicate that education students experienced positive group work experiences and challenges in grouping dynamics. Moreover, social interdependence attitude in collaborative learning is one of the constructs of readiness for interprofessional learning. It exists when the outcomes of individuals are affected not only by their own actions, but by the actions of others as well. Social interdependence is important for constructing relationships among interprofessional health care providers (Shimizu et al., 2022). Additionally, Cooperative groups can be structured through positive interdependence, making sure that learners feel responsible and accountable, that they are committed to promoting each other and to communicating efficiently, in a trusting atmosphere, and in groups that reflect upon their functioning. In other words, positive goal interdependence represents both the structure of the cooperation (ensuring that students actually work together) and the spirit of the classroom (stimulating students to take care of both their own learning and the learning of their classmates (Buchs, 2023).

Moreover, it was revealed in the finding that learning occurs because people observe the consequences of the behavior of others. People observe behavior either directly through social interaction with others or indirectly by observing behavior through the media (Cherry, 2022). Furthermore, positive teacher-student interactions, combined with a rich and pleasant auditory environment, significantly improved students' classroom well-being (Saxer et al., 2024). Additionally, the ease of using classroom technology was found to moderate the relationship between teacher-student interactions and students' well-being, with more user-friendly technologies contributing to better student experiences.

The results of the study also show that children's developing social understanding of themselves and others is supported by their ongoing negotiation of meaning in conversational exchanges. Early interaction among peers, takes the form of a continuous quest for meaning. Children are literally forced to interact with others as cultural subjects, growing into their cultural community by jointly constructing and sharing the meanings of this community (Grazzani & Brockmeier, 2019). Additionally, earning a second language in interaction with another person significantly improves long-term retention of new vocabulary. Words encoded from the social condition showed significantly higher accuracy rates and faster reaction times than words encoded from the translation condition (De Felice et al., 2022).

Furthermore, the study also highlights the significance of a person's behavior which is determined by his perception and understanding of situations related to his/her learning goals. Cognitive processes do not involve repetition or memorization. It is related to meaningful learning how to learn and create true understanding. Students are seen as active participants in their learning process, building new information by connecting it to their existing mental frameworks, known as schemas (Aprilia, 2024). Moreover, providing opportunities for students to express themselves through writing, speaking, and other forms of creative expression, teachers help students develop the ability to articulate their thoughts clearly and effectively. These skills are not only vital for academic achievement but also for success in future careers and personal relationships (Muzaki, 2024).

Table 5. **Insights of education students with regards to collaborative learning and vocabulary knowledge**

ISSUES PROBED	CORE IDEAS	CODE / CATEGORIES	ESSENTIAL THEME	THEORETICAL SUPPORT
Impact of Collaborative Learning on Vocabulary Acquisition.	• Exposing learners to a wider range of words and expressions through discussions, activities and interactions. • Reinforcing vocabulary which makes it easier to remember and use in real-world situations. • Deepening the understanding of vocabularies to retain it better.	Being exposed to Diverse Language Styles	Enhancing Language Learning Through Exposure, Collaboration, and Practice	Social Constructivist Theory
	• Boosting of confidence in speaking and writing. • Providing feedbacks and correcting mistakes can improve language skills.	Building Confidence and Fluency		

	• Working with others exposes to different perspectives and diverse language styles, including varied pronunciation, usage and meanings. • Sharing each other's ideas.	Language Enrichment through Collaboration		
Strategies to Enhance Collaboration and Boost Vocabulary Knowledge	• Participating actively during discussions, ask questions and share ideas to learn a lot in class. • Having interest to learn collaborative skills to improve vocabularies. • Establishing clear goals, rules and expectations for effective collaboration.	Active Communication and Idea Generation	Developing Effective Communication and Collaboration in Group Work	Zone of Proximal Development
	• Giving feedback to know each other's performances. • Helping each other correct mistakes and explain words in a friendly way. • Encouraging active participation of group members in group discussions and give others a chance to speak.	Feedback and Support for Improvement		
Positive and inclusive learning environment	• Showing respect and support with other's perspectives. • Establishing positive and inclusive environment. • Making oneself open for suggestions and new knowledge.	Respect and Inclusivity	Fostering Respect and Growth in Group Work	Humanistic Learning Theory
	• Viewing mistakes as part of the learning process. • Encouraging learners to collaborate with other students. • Stepping out of comfort zones.	Growth Mindset and Self-Improvement		

Lessons and Realizations from Collaborative Learning Experiences	• Recognizing the value of being patient when disagreements arise. • Fearing to make mistakes can hinder progress. • Having the willingness and eagerness to learn.	Emotional Regulation and Adaptability	Cultivating Adaptability and Trust in Group Work	Emotional Intelligence Theory
	• Building trust relationship, trust and mutual respect in collaborative learning. • Respecting the viewpoints of others to create a harmonious and productive collaborative environment.	Building Positive Group Relationships		
Recommendations to Enhance Collaboration and Vocabulary Skills for English Learners	• Conducting debates to practice vocabulary. • Equipping educators with effective collaborative learning strategies. • Fostering a supportive environment for students to improve language skills.	Collaborative Learning and Language Development	Facilitating Learning Through Collaboration and Technology Integration	Constructivist Learning Theory
	• Investing in technology and resources that support collaborative learning. • Accessing language learning apps for better understanding of unknown words. • Providing training for teachers.	Technology-Driven Learning and Information Access		

In this study, education students highlight the value of peer interaction, cooperative strategies, and the role of social context in enriching vocabulary acquisition and overall academic performance. As such, the result indicates that meaningful learning occurs due to social interaction, where learners interact for meaningful learning. Teachers provide instructional assistance through teaching strategies that allow students to find and develop knowledge as they engage and collaborate throughout the learning process. The role of learners has been changed from passive listeners to active participants and co-constructors of knowledge among co-learners, which also transfers responsibility of knowledge acquirement from the teachers to learners (Saleem et al., 2021). Moreover, learning vocabulary is not simply about memorizing words or their meanings but about

actively constructing understanding through social interactions and engagement with others (Nguyen & Le, 2023).

Consequently, the findings of the study indicate that education students have been exposed with varied strategies in vocabulary learning. Recognizing exposure in generating ideas and participation during group activities are the practices that made them exposed with the vocabulary learning. Thus, Support and guidance are being provided by teachers or more knowledgeable individuals to help learners acquire, understand, and effectively use new words. In vocabulary acquisition, this support might involve modeling the use of a new word in context, establishing clear goals and correcting each other's mistakes that help learners identify the proper usage and meaning of unfamiliar words (Rahman, 2024).

Additionally, in this study, education students have been employed by showing respect and support for other's perspectives while learning vocabularies. Thus, fostering an environment of unconditional positive regard, empathy, and authenticity promotes positive learning outcomes and student well-being by developing confidence, intrinsic motivation, and self-reflective capacities. By prioritizing the teacher-student relationship and cultivating trust and acceptance, educators can address students' emotional and social needs to support higher-order learning and self-actualization (Swan et al., 2020). Also, education should focus on the holistic development of the individual, nurturing their emotional, social, and psychological well-being, not just the transmission of knowledge (Kumari, 2024). Moreover, students' emotional environment and experiences in school can influence their learning and progress, not only by undermining specific cognitive learning processes as a consequence of negative emotions but also by affecting their engagement and motivation as well as their learning strategies (Costa & Faria, 2023). Furthermore, humans create meaning when their experiences and ideas interact. Students bring prior knowledge into a learning environment in which they are required to evaluate and re-evaluate their understanding (Chand, 2024).

Table 6. **Joint Display of Salient Quantitative and Qualitative Findings**

ASPECT OR FOCAL POINT	QUANTITATIVE FINDINGS	QUALITATIVE FINDINGS	NATURE OF DATA INTEGRATION	AXIOLOGICAL IMPLICATIONS
Positive Interdependence in Group Learning	From Table 1 on Positive Interdependence, item number 1 about being productive when learning with my groupmates than learning alone (M=3.89), is described as oftentimes manifested	Table 2 on Positive Group Work Experience under the theme of Fostering Engagement and Overcoming Challenges in Group Work	Merging-converging	The oftentimes rating for *being productive when learning with my groupmates than learning alone* emphasizes the importance of shared responsibility. In group settings, individuals learn from one another while contributing to the group's overall success, fostering a sense of social responsibility and mutual respect. This collaborative productivity shows how students can effectively manage their time, stay focused on their studies, and make progress in their education.
Social and Emotional Dynamics in Collaborative Learning	From Table 1 on Positive Interdependence, item number 2 about working confidently and	Table 2 on Positive Social Interaction and Personal Growth under the theme of	Merging-converging	The oftentimes rating for *working confidently and productively in groups* emphasizes values like cooperation, mutual respect, and

	productively in groups (M=3.88), is described as oftentimes manifested	Experiencing Social and Emotional Dynamics for Collaborative Learning		shared responsibility, fostering a collective ethical commitment to common goals. It also highlights the importance of fairness, inclusivity, and recognition of individual contributions within the group dynamic.
Valuing Idea Sharing for Engagement in Group Work	From Table 1 on Positive Interdependence, item number 3 about valuing the sharing of ideas with peers (M=4.26), is described as always manifested	Table 2 on Positive Group Work Experience under the theme of Fostering Engagement and Overcoming Challenges in Group Work	Merging-converging	The always rating for *valuing the sharing of ideas with peers* emphasizes collaboration, intellectual generosity, and egalitarianism, fostering collective growth and innovation through open exchange. It underscores the ethical importance of responsibility, cultural pluralism, and the communal nature of knowledge, contributing to human flourishing and mutual understanding.
Reinforcing Language Proficiency Through Cognitive Strategies	From Table 5 on Proficiency, item number 4 about reviewing my vocabulary regularly to reinforce retention and enhance language proficiency (M=4.07), is described as oftentimes observed	Table 2 on Reviewing and Retention Techniques under the theme of Enhancing Learning Through Cognitive Strategies	Merging-converging	The oftentimes rating for *reviewing my vocabulary regularly to reinforce retention and enhance language proficiency* shows that valuing consistent practice can lead to greater personal growth and improvement in language skills. This indicates that making an effort to reinforce knowledge is seen as a valuable and effective way to enhance one's academic and cognitive development.
Active Participation and Collaboration in Group Learning	From Table 3 on Individual Accountability, item number 1 about being participative in the group tasks	Table 3 on Building Positive Group Relationships under the theme of Enhancing	Merging-converging	The always rating for *being participative in the group tasks* emphasize the value of individual responsibility and collaborative effort in achieving collective

	(M=4.51), is described as always manifested	Learning Through Active Engagement and Collaboration		success. By regularly participating in group activities, students show the value of helping the group work well together, creating a positive learning atmosphere that improves both vocabulary and teamwork.

Collaborative learning allows for students to work together to solve problems and answer questions. This can lead to deeper learning and better retention of vocabulary knowledge. When students work together, they are able to participate in discussions and debates, that eventually result in greater understanding of the subject matter. Collaborative learning also allows for students to practice their communication skills, which is essential for developing their vocabulary knowledge (Vakilifard et al., 2020). Moreover, through group discussions and interactions, students can practice speaking, listening, and writing in English. This can help to improve their confidence and fluency in using English, which in turn can help them to acquire new vocabulary words (Crisianita & Mandasari, 2022).

On the other hand, students' comprehensive vocabulary knowledge was demonstrated across their reading, writing, speaking, listening, and comprehension. The ability to read, write, and speak fluently in English, with a strong grasp of grammar, vocabulary, and figurative language, highlights a well-rounded learning. Additionally, vocabulary knowledge consists of productive and comprehensive vocabulary knowledge to investigate a learner's knowledge level for each vocabulary-that is, whether a learner has both productive and comprehensive knowledge of the target word, has only comprehensive knowledge, or cannot comprehend the target word at all. Understanding the effects of varying vocabulary knowledge on sentence comprehension may lead to concrete pedagogical suggestions and an emphasis on productive vocabulary knowledge acquisition (Mizuhara et al., 2023). Therefore, the stronger a reader's vocabulary, the better they can understand, interpret, and analyze texts (González-Fernández & Schmitt, 2020).

4. CONCLUSION

The findings reveal that, the level of collaborative learning among education students is high in terms of promotive interaction and individual accountability, while the indicator positive interdependence is oftentimes manifested, but still the overall result is high. Also, the level of vocabulary knowledge among education students is oftentimes in terms of proficiency and ability while the indicator concentration is always manifested. Hence, this indicates that the indicators of collaborative learning and vocabulary knowledge are always manifested by the education students. Moreover, It was revealed that the hypothesis is being rejected, hence, there is significant relationship between collaborative learning and vocabulary knowledge among education students.

Additionally, the thematic analysis of the qualitative data was analyzed based on responses obtained from in-depth interviews (IDI) and focus group discussions (FGD). This analysis provided additional insights into the lived experiences of education students, specifically regarding how collaboration of students can enhance their vocabulary knowledge. Qualitatively, education students have been experiencing different situations that contribute to their aim in enhancing their vocabulary knowledge. The following themes were emerged: fostering engagement and overcoming challenges in group work, enhancing learning through active engagement and collaboration, learning vocabulary through engaging in group dynamics and encountering communication challenges, enhancing learning through cognitive strategies and experiencing social and emotional dynamics for collaborative learning. Lastly, to comprehensively assess the impact of collaborative learning on the vocabulary knowledge of education students, the responses were analyzed thematically to validate the qualitative findings of the study. The results from both phases were integrated according to the planned approach. The quantitative results provided insights into the levels of collaborative learning (CL) and vocabulary knowledge (VK) among participants, which were then cross-referenced with the qualitative data. To a great extent, both sets of findings converged, confirming that collaborative learning significantly influences students' vocabulary knowledge across various dimensions. This convergence underscores the enhancement of students' abilities to understand nuances, engage in discourse, and apply linguistic functions effectively within different contexts.

CONSENT

The author declare that written informed consent was obtained from the participants (or other approved parties) for publication of this research paper. A copy of the written consent is available for review by the Editorial office/Chief Editor/Editorial Board members of this journal.

ETHİCAL APPROVAL

The author hereby declare that all conducted research have been examined and approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki.

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