INTERACTION: Jurnal Pendidikan Bahasa Vol. 13, No.1; Maret 2026
P-ISSN: 2406-9558; E-ISSN: 2406-9566

The Effectiveness of YouTube Video-Based Learning in Enhancing Vocabulary Development Among Vocational High School Students

Olivia Julianti
oliviajulianti037@gmail.com

Sunarti
sun377@umkt.ac.id

Yeni Rahmawati
yr173@umkt.ac.id

Universitas Muhammadiyah Kalimantan Timur

ABSTRACT

This study aimed to investigate the effectiveness of YouTube videos in improving vocabulary acquisition among vocational EFL students. A mixed-methods within-subject design was employed involving 32 third-year vocational students in Indonesia. Quantitative data were collected through pre-test and post-test vocabulary assessments and analyzed using paired-samples t-tests, while qualitative data were obtained from semi-structured interviews to explore students' learning experiences. The results showed a significant improvement in students' vocabulary achievement, with the mean score increasing from 56.84 (SD = 8.21) in the pre-test to 78.12 (SD = 7.65) in the post-test ($p < .001$), indicating a large effect size (Cohen's $d = 1.32$). These findings confirm a substantial gain in vocabulary mastery after the integration of YouTube videos in instruction. Qualitative analysis revealed that YouTube-based learning enhanced students' motivation and engagement through audiovisual input, contextualized examples, and varied learning materials. Students reported that visual support, pronunciation models, and repeated exposure helped them understand and retain new vocabulary more effectively. Nevertheless, several challenges were identified, including fast speech rates, occasional subtitle inaccuracies, and the need to verify vocabulary correctness. Overall, the study concludes that YouTube video-based learning is an effective instructional tool for supporting vocabulary development in vocational EFL contexts when supported by structured instructional design and appropriate teacher guidance.

Keywords: YouTube; Vocabulary Learning; EFL Students, Vocational Education

INTRODUCTION

Digital media has become an integral component of English as a Foreign Language (EFL) instruction, providing learners with greater access to authentic language input and flexible learning opportunities. The integration of audiovisual resources allows students to engage with spoken language in meaningful contexts, supporting

comprehension, pronunciation awareness, and vocabulary development. Among widely used digital platforms, YouTube has attracted increasing attention in educational settings because it offers abundant free content, diverse genres, and real-life communicative models. Through videos, learners are exposed to natural speech, visual cues, and contextualized language use, which can facilitate deeper processing of linguistic input and increase learner engagement (Alwehaibi, 2015; Kabooha & Elyas, 2018).

Vocabulary development remains a foundational aspect of language learning, as vocabulary knowledge directly influences learners' ability to comprehend spoken and written texts, express ideas accurately, and participate effectively in communication. Schmitt (2019) emphasizes that vocabulary mastery contributes significantly to overall language proficiency, while Nation (2020) explains that limited lexical knowledge restricts learners' fluency, comprehension, and confidence in using a second language. In secondary and vocational education, vocabulary competence is particularly important because students are expected to apply English in academic tasks, practical training, and workplace-related communication. Students who lack sufficient vocabulary often struggle to follow instructions, understand technical terms, and interact appropriately in professional contexts.

In the Indonesian EFL context, vocabulary mastery remains a persistent challenge. Several studies report that many students possess limited word knowledge and rely heavily on translation or memorization strategies, which reduces their ability to use vocabulary productively (Hartini & Suri Ardini, 2024; Mustafa, 2019). This condition is often associated with instructional practices that emphasize isolated word lists, repetitive drills, and short-term memorization rather than meaningful usage. Teng (2018) argues that such approaches encourage shallow cognitive processing and result in weak long-term retention. Similarly, Gao and Zhang (2020) highlight that decontextualized learning environments limit learners' opportunities to build semantic connections and apply vocabulary in authentic situations. As a result, students may recognize words in tests but fail to use them effectively in real communication.

Contextualized learning supported by audiovisual media offers an alternative approach to vocabulary instruction. By encountering new lexical items in spoken discourse accompanied by visual cues, learners can infer meaning, observe usage patterns, and strengthen form–meaning associations. Nation (2020) notes that repeated exposure in meaningful contexts promotes durable vocabulary acquisition, while Schmitt (2019) stresses the importance of multimodal input in reinforcing memory and retrieval. Video-based learning environments also allow learners to replay content, control pace, and focus on pronunciation models, which supports autonomous learning and individualized progress. These features make audiovisual platforms particularly relevant for learners who require flexible access to language input beyond classroom time.

Empirical research has increasingly examined the pedagogical potential of YouTube in EFL contexts. Studies conducted in secondary schools and higher education settings report positive effects on vocabulary acquisition, listening comprehension, pronunciation awareness, and learner motivation. Nababan and Simanjuntak (2023) demonstrated that YouTube-based instruction significantly improved students' ability to recognize and apply new vocabulary in classroom tasks. Lestari and Yosintha (2022) found that video-based platforms promote learner autonomy by enabling students to review materials independently and engage with authentic language exposure. Other studies indicate that audiovisual input enhances attention and reduces learner anxiety by providing concrete contextual support rather than abstract explanations (Kabooha & Elyas, 2018).

However, the use of YouTube in language learning is not without limitations. Learners may encounter fast speech rates that exceed their listening proficiency, leading to comprehension difficulties. Subtitles may contain inaccuracies or mismatches between spoken and written forms, which can confuse learners and affect vocabulary accuracy. Montero Perez et al. (2018) also note that uncontrolled online content may expose learners to informal or non-standard language forms that require careful teacher mediation. These challenges highlight the need for structured instructional design and guided integration of digital media rather than unrestricted exposure.

Despite the growing body of literature on YouTube-assisted language learning, several research gaps remain. First, many existing studies rely on between-group quasi-experimental designs that focus primarily on comparing post-test scores between experimental and control groups. While such designs demonstrate overall effectiveness, they offer limited insight into individual learners' vocabulary development and learning trajectories over time. Within-subject approaches that examine changes in the same group of learners remain relatively underexplored. Second, most empirical investigations are situated in general EFL contexts or academic-oriented senior high schools. Vocational high school students represent a distinct population whose English learning objectives are closely related to occupational communication, technical terminology, and practical interaction in workplace settings. Their learning needs differ from those of general academic students, as they require functional vocabulary relevant to specific fields such as tourism, engineering, hospitality, or information technology. However, empirical evidence focusing specifically on vocational learners' vocabulary development through YouTube-based instruction remains limited, particularly in the Indonesian context.

Third, although quantitative gains in vocabulary achievement are frequently reported, fewer studies integrate learners' perspectives to explain the motivational factors, learning experiences, and perceived challenges underlying these improvements. Understanding students' perceptions is essential for interpreting how digital media influences engagement, autonomy, and learning strategies.

Without qualitative insight, instructional recommendations may overlook practical classroom realities, learner preferences, and contextual constraints.

These gaps indicate a need for research that not only measures vocabulary improvement but also explores learners' experiences and challenges in vocational education settings using a more comprehensive methodological approach. A mixed-methods within-subject design can provide a richer understanding of learning outcomes by combining statistical evidence of vocabulary growth with qualitative insight into learner engagement, motivation, and difficulties encountered during instruction. Therefore, this study aims to examine the effectiveness of YouTube video-based learning in improving vocational high school students' vocabulary mastery, to explore its influence on students' learning motivation, and to investigate students' perceptions and challenges during the learning process. By addressing both learning outcomes and learner experiences, this study seeks to contribute empirical evidence that informs pedagogical decision-making and supports the meaningful integration of digital media in vocational EFL classrooms.

LITERATURE REVIEW

YouTube in EFL Learning

YouTube has become one of the most widely used digital platforms in language education due to its accessibility, rich audiovisual content, and authentic language exposure. As a video-sharing platform, YouTube allows learners to access real-life conversations, pronunciation models, cultural expressions, and contextualized language use beyond traditional textbooks. This exposure supports learners in developing listening comprehension, pronunciation awareness, and vocabulary knowledge through multimodal input. According to Kabooha and Elyas (2018), audiovisual materials help learners process language more effectively because meaning is supported by images, gestures, and situational context. This combination enables learners to associate words with real experiences rather than memorizing isolated vocabulary items.

In recent years, YouTube has increasingly been integrated into EFL classrooms to promote learner engagement and autonomy. Learners can control playback speed, repeat difficult sections, and access materials anytime, which supports individualized learning. Alwehaibi (2015) states that video-based learning environments encourage active learning because students interact directly with authentic materials rather than passively receiving teacher explanations. In Indonesian contexts, digital platforms are also seen as practical solutions to limited learning resources and large class sizes, allowing teachers to provide varied input without heavy material costs. From a pedagogical perspective, YouTube supports communicative language teaching principles by presenting language in meaningful contexts. Learners are exposed to natural speech patterns, intonation, and pragmatic usage, which helps bridge the gap between classroom English and real

communication. However, effective integration requires careful selection of videos and instructional guidance to ensure content relevance and language accuracy.

Vocabulary Acquisition in EFL Contexts

Vocabulary knowledge plays a central role in language proficiency because it directly affects learners' ability to understand texts, express ideas, and participate in communication. Schmitt (2019) explains that vocabulary acquisition involves not only knowing word meanings but also understanding pronunciation, grammatical patterns, collocations, and pragmatic usage. Nation (2020) emphasizes that insufficient vocabulary limits learners' fluency, comprehension, and confidence in using a foreign language.

In EFL contexts, vocabulary learning remains challenging due to limited exposure to authentic English outside the classroom. Many learners rely on rote memorization strategies that emphasize short-term recall rather than meaningful usage. Teng (2018) argues that shallow learning strategies often result in weak retention and difficulty transferring vocabulary into productive skills such as speaking and writing. Indonesian studies also report that students struggle with vocabulary size, pronunciation accuracy, and word usage, which affects their overall English performance (Hartini & Suri Ardini, 2024; Mustafa, 2019).

Effective vocabulary learning requires repeated exposure, contextualized input, and meaningful practice. Nation (2020) highlights the importance of encountering words multiple times in varied contexts to strengthen memory and retrieval. Multimedia input supports this process by combining visual, auditory, and contextual cues, which enhances cognitive processing and retention. Therefore, integrating audiovisual media into vocabulary instruction is considered an effective approach to overcoming limitations of traditional methods.

YouTube and Vocabulary Learning Outcomes

Recent empirical studies consistently report positive effects of YouTube integration on vocabulary acquisition in EFL classrooms. Nababan and Simanjuntak (2023) found that students who learned vocabulary through YouTube videos showed significant improvement in word recognition, pronunciation accuracy, and contextual usage. The study suggests that visual support and authentic examples help learners internalize word meanings more effectively than textbook-based instruction alone. Similarly, Lestari and Yosintha (2022) reported that video-based platforms promote autonomous vocabulary learning by allowing students to review materials independently and practice pronunciation repeatedly. Students demonstrated better retention and higher motivation because learning felt more engaging and relevant to real-life communication. Another study by Masruddin et al. (2024) revealed that students exposed to short thematic YouTube clips achieved higher vocabulary gains compared to those taught through conventional drills.

International research supports these findings. Chen and Kessler (2020) argue that multimedia input enhances learner engagement and cognitive involvement, leading to better vocabulary retention. Crosthwaite et al. (2022) also emphasize that interaction with digital media encourages exploratory learning and independent strategy development. These findings indicate that YouTube not only improves vocabulary performance but also supports learner-centered learning environments. However, vocabulary improvement is not automatic. The effectiveness of YouTube depends on how videos are integrated into instructional activities such as pre-viewing tasks, guided vocabulary exercises, and post-viewing reflection. Without structured guidance, learners may focus more on entertainment than learning objectives.

Learner Motivation and Engagement in YouTube-Based Learning

Motivation plays a critical role in successful language learning. Digital media platforms such as YouTube often increase learners' interest because content is visually appealing, relatable, and varied. Alzahrani (2023) found that students show positive attitudes toward technology-assisted learning because it allows flexible access and personalized learning experiences. Students feel more confident and motivated when they can control their learning pace and select preferred content. In Indonesian EFL classrooms, YouTube has been reported to enhance student participation and reduce learning anxiety. Zulianti and Nurchurifiani (2021) noted that audiovisual media helps create a relaxed learning atmosphere that encourages students to participate actively. Learners feel less pressured compared to traditional teacher-centered instruction. Motivation also increases when learners see the practical relevance of vocabulary used in real situations such as travel, business, or entertainment. Self-determination theory suggests that autonomy, competence, and relatedness contribute to learner motivation. YouTube supports autonomy by allowing learners to explore content independently and revisit difficult materials. It supports competence through repeated practice and clear pronunciation models. It also supports relatedness when learners share videos, discuss content, and collaborate in class activities. These motivational factors strengthen learners' willingness to engage with vocabulary learning tasks.

Challenges in Using YouTube for Vocabulary Learning

Despite its benefits, several challenges have been identified in YouTube-based instruction. One major issue is fast speech rate, which may exceed learners' listening proficiency and hinder comprehension. Kabooha and Elyas (2018) report that students often struggle to follow native-speaker speed, especially at lower proficiency levels. Subtitle inaccuracies or mismatches between spoken and written forms may also confuse learners and affect vocabulary accuracy. Another concern is content reliability. Not all YouTube videos are designed for educational purposes, and some may contain informal language, slang, or grammatical errors. Montero Perez et al. (2018) emphasize the importance of teacher mediation to ensure content suitability and linguistic accuracy. Distractions and off-task behavior may also

occur when learners access YouTube without structured guidance. Technical limitations such as internet stability, device availability, and digital literacy can further affect implementation, particularly in developing regions. These challenges indicate that YouTube should be integrated strategically rather than used as a standalone learning tool.

Although existing studies confirm the positive impact of YouTube on vocabulary learning and motivation, several gaps remain. Most studies focus on between-group comparisons and short-term achievement, providing limited insight into individual learning development over time. Vocational high school contexts remain underrepresented, even though vocational students require functional vocabulary aligned with workplace communication. In addition, learners' perceptions, challenges, and motivational experiences are often insufficiently explored through qualitative analysis. Therefore, further research is needed to examine vocabulary improvement using within-subject designs combined with learner perspectives, particularly in vocational education settings. Such research can provide deeper understanding of how YouTube supports vocabulary learning, motivation, and classroom practice in realistic educational contexts.

METHOD

Design and Sample

This study employed a mixed-methods approach to obtain a comprehensive understanding of the effectiveness of YouTube-based instruction on students' vocabulary development. The quantitative component adopted a quasi-experimental within-subject design, in which the same group of participants was measured before and after the instructional intervention. Each student served as their own comparison, allowing individual learning gains to be examined without the use of a control group. This design reduces the influence of individual differences and increases sensitivity in detecting learning improvement over time (Creswell, 2022; Montero Perez et al., 2018). The qualitative component complemented the quantitative findings by exploring learners' perceptions, motivation, and challenges during the learning process. Semi-structured interviews were conducted after the intervention phase to obtain deeper insight into students' experiences. The integration of quantitative outcomes and qualitative perspectives aligns with a sequential explanatory mixed-methods design, which allows statistical findings to be explained and enriched through qualitative interpretation (Ivankova, 2015).

Participants consisted of 32 Grade 12 vocational high school students from one class in Kutai Kartanegara Regency, Indonesia. Total sampling was employed because all students met the research criteria and the population size was manageable. According to Etikan (2016), total sampling is appropriate for small populations to ensure comprehensive representation. All students participated in the pre-test, instructional sessions, and post-test. For qualitative data, five students were

selected using purposive sampling to represent varied levels of vocabulary achievement and classroom engagement. Creswell (2022) notes that purposive sampling enables researchers to capture diverse perspectives and rich information in qualitative inquiry.

Instruments and Procedures

Two primary instruments were used: a vocabulary test and semi-structured interview guidelines. The vocabulary test consisted of 30 multiple-choice items measuring word meaning recognition, contextual understanding, and appropriate word usage. Each correct answer received one point, with total scores converted to a 0–100 scale. The test items were directly aligned with the vocabulary presented in the instructional videos to ensure content relevance and construct validity (Nation, 2020). To ensure instrument quality, content validity was established through expert judgment involving two experienced English teachers who reviewed item relevance, clarity, and linguistic suitability for students' proficiency levels (Creswell, 2022; Moeller et al., 2016). Several items were revised based on their feedback. Reliability was examined through a pilot test administered to students with similar characteristics but not included in the main sample. Internal consistency was calculated using Cronbach's alpha, with a minimum acceptable coefficient of 0.70 (Tavakol & Dennick, 2011; Taber, 2018). The obtained reliability coefficient exceeded this threshold, indicating adequate reliability.

The instructional materials consisted of six YouTube videos selected based on specific pedagogical criteria. First, topic relevance was prioritized by choosing videos related to everyday communication and vocational contexts, such as workplace interaction, customer service, and basic professional expressions. Second, language level was considered by selecting videos with clear pronunciation, moderate speech speed, high-frequency vocabulary, and simple sentence structures appropriate for intermediate EFL learners. Third, video length ranged from 5 to 8 minutes to maintain students' attention and allow focused vocabulary exploration within class time. Fourth, authenticity and visual clarity were considered to ensure contextualized language use supported by meaningful visual cues. Finally, subtitle availability and audio quality were examined to support listening comprehension and vocabulary recognition. All selected videos were previewed and validated by the researcher and an English teacher prior to implementation.

The intervention lasted six weeks, with one session per week (2 × 45 minutes). Each session followed three stages: pre-viewing, while-viewing, and post-viewing activities. In the pre-viewing stage, students were introduced to key vocabulary and learning objectives. During viewing, students watched the selected video and completed guided tasks such as identifying new words, matching meanings, and noting pronunciation features. In the post-viewing stage, students practiced vocabulary through short exercises, sentence construction, and group discussion. A pre-test was administered before the intervention to measure baseline vocabulary

knowledge. After the completion of all instructional sessions, a post-test was administered to measure vocabulary improvement. Semi-structured interviews were conducted one week after the post-test. Each interview lasted approximately 20–30 minutes and was conducted in Indonesian to ensure clarity and comfort. Interviews were audio-recorded with participants' consent and transcribed verbatim for analysis.

Data Analysis

Quantitative data were analyzed using descriptive and inferential statistics. Descriptive statistics included mean scores, standard deviations, and gain scores to summarize students' vocabulary performance before and after the intervention. Inferential analysis employed a paired-samples t-test to determine whether the observed improvement was statistically significant (Field, 2020). Effect size was calculated using Cohen's d to evaluate the practical significance of the intervention (Lakens, 2022). Qualitative data from interviews were analyzed using thematic analysis following Braun and Clarke's (2006) six-phase framework: familiarization with the data, initial coding, theme identification, theme review, theme definition, and reporting. Transcripts were coded manually to identify recurring patterns related to learning benefits, motivation, and challenges. Finally, quantitative and qualitative findings were integrated during interpretation to strengthen explanatory depth and triangulate results. This integration enabled statistical trends to be supported and explained by students lived experiences and perceptions (Creswell, 2022; Guetterman et al., 2015).

RESULT AND DISCUSSION

Students' vocabulary performance before and after the implementation of YouTube video-based learning was analyzed using descriptive and inferential statistics. The purpose of this analysis was to determine whether measurable improvement occurred after the instructional intervention and to examine the magnitude and meaning of that improvement.

Table 1. Descriptive Statistics of Students' Vocabulary Scores

Test Type	N	Mean	Standard Deviation
Pre-Test	32	75.44	9.69
Post-Test	32	86.81	8.50

Table 1 presents the descriptive statistics of students' vocabulary scores before and after the intervention. The mean pre-test score of 75.44 indicates that students possessed a moderate level of vocabulary mastery prior to exposure to YouTube-based learning activities. After the instructional treatment, the mean score increased substantially to 86.81, reflecting noticeable improvement in students' vocabulary knowledge. The decrease in standard deviation from 9.69 in the pre-test to 8.50 in the post-test suggests that students' performance became slightly more consistent after the intervention, indicating reduced variability in achievement levels among

learners. This pattern implies that the instructional approach not only improved overall performance but also contributed to more balanced learning outcomes across the class.

Before conducting inferential analysis, the data were examined for normality to ensure that parametric statistical procedures were appropriate. The Shapiro–Wilk test showed that the distribution of difference scores was normal ($p = 0.261$), indicating that the assumptions for paired-samples t-test analysis were satisfied.

Table 2. Paired-Samples t-Test Results on Vocabulary Scores

Comparison	Mean Difference	t	df	p-value
Pre-Test – Post-Test	-11.38	-7.55	31	< 0.001

Table 2 summarizes the inferential statistics comparing pre-test and post-test scores. The negative mean difference (-11.38) indicates that post-test scores were substantially higher than pre-test scores, confirming a positive learning gain following the intervention. The obtained t-value of -7.55 with 31 degrees of freedom reflects a strong statistical difference between the two testing occasions. The p-value of less than 0.001 demonstrates that this improvement is statistically significant and unlikely to have occurred by chance. This result provides strong empirical evidence that the integration of YouTube videos had a meaningful effect on students' vocabulary achievement.

To further evaluate the practical importance of the observed improvement, effect size was calculated using Cohen's d. The resulting value of 1.34 represents a large effect size, indicating that the magnitude of improvement was not only statistically significant but also educationally meaningful. This suggests that the instructional intervention produced a strong and noticeable impact on students' vocabulary learning in real classroom conditions. Qualitative findings were analyzed to complement the quantitative results and to provide deeper insight into students' learning experiences during the intervention. Three major themes emerged from the interview data: increased motivation, improved vocabulary understanding, and learning challenges.

Table 3. Summary of Qualitative Findings

Theme	Code Description	Participants	Representative Quotation
Increased Motivation	Enjoyable learning	P1, P3, P5	"It feels like watching entertainment, but I am still learning."
	Higher learning interest	P3, P5	"I feel more motivated because each video offers many things."
Vocabulary Understanding	Visual support	P1, P3	"The visuals help me understand new words."

	Contextual learning	P3	"Many words appear repeatedly and in real contexts."
Learning Challenges	Fast speech	P1, P3	"Sometimes the speaker talks too fast."
	Subtitle issues	P2, P5	"Sometimes the subtitles are different from what is explained."
	Vocabulary accuracy	P5	"We still need to check whether the vocabulary is correct."

As shown in Table 3, students expressed positive emotional responses toward learning with YouTube videos, describing the learning process as enjoyable and motivating. The audiovisual format helped sustain attention and reduce learning fatigue, which encouraged students to engage more actively in vocabulary learning tasks. Students also reported improved understanding of vocabulary through visual support and repeated exposure to words in meaningful contexts. Visual cues helped learners infer word meanings more accurately, while contextual usage reinforced retention and appropriate application of new vocabulary.

At the same time, the findings highlight several challenges that may affect learning effectiveness. Some students experienced difficulty understanding fast speech, which limited comprehension of unfamiliar words. Subtitle inconsistencies occasionally caused confusion regarding spelling and meaning, while concerns about vocabulary accuracy required students to verify information independently or seek teacher confirmation. These challenges indicate that although YouTube-based learning offers substantial benefits, structured teacher guidance and careful material selection remain essential to maximize learning effectiveness and minimize potential misunderstandings.

The findings of this study demonstrate that YouTube video-based learning significantly improved students' vocabulary mastery in a vocational EFL classroom. This result is consistent with Nation's (2020) view that vocabulary learning becomes more effective when learners encounter lexical items repeatedly in meaningful contexts. In the present study, students were exposed to vocabulary through authentic video materials across multiple sessions, allowing them to repeatedly observe word meanings, pronunciation, and usage in realistic situations rather than relying on isolated memorization. This contextual exposure likely strengthened retention and facilitated more accurate word recognition and usage.

The positive vocabulary gains also align with Schmitt's (2019) explanation that multimodal input enhances lexical processing by engaging multiple cognitive channels simultaneously. The combination of visual cues, spoken language, and situational context in YouTube videos provided learners with richer input than traditional text-based instruction. Similar outcomes have been reported in

Indonesian EFL contexts. Nababan and Simanjuntak (2023) found that students exposed to YouTube-based instruction demonstrated improved vocabulary recognition and practical use of new words. Likewise, Lestari and Yosintha (2022) reported that flexible access to video materials encouraged repeated exposure and autonomous practice, which contributed to vocabulary development. The present study supports these findings by confirming that video-based instruction not only improves vocabulary performance but also facilitates meaningful engagement with lexical items in vocational classrooms.

The large effect size observed in this study suggests that the intervention produced substantial learning gains beyond statistical significance. Several factors may explain this outcome. First, the within-subject design allowed each learner to be compared with their own baseline performance, making learning gains more visible and sensitive to instructional impact. Second, the instructional videos were carefully selected to match students' language level and vocational relevance, which likely increased comprehension and reduced cognitive overload. Third, vocational students tend to be highly responsive to practical and contextual learning materials because they value direct applicability to workplace communication. This relevance may have increased attention, persistence, and willingness to engage with vocabulary tasks. Finally, repeated exposure across six instructional sessions provided sufficient time for vocabulary consolidation, supporting deeper learning rather than short-term memorization. This classroom conditions collectively contributed to the strong practical impact reflected in the large effect size.

In addition to vocabulary improvement, the findings indicate that YouTube-based learning positively influenced students' motivation and engagement. Students expressed greater interest and enjoyment when learning vocabulary through audiovisual materials compared to traditional methods. This observation aligns with Ryan and Deci's (2020) self-determination theory, which emphasizes that learning environments supporting autonomy and competence promote intrinsic motivation. YouTube allows learners to control playback, repeat difficult segments, and observe authentic language use, thereby enhancing their sense of competence and learning ownership. Similar motivational benefits were reported by Kabooha and Elyas (2018), who found that YouTube integration increased positive learner attitudes and classroom engagement. Oga-Baldwin and Fryer (2020) further highlight that sustained motivation plays a critical role in maintaining learning persistence, particularly when instructional content is perceived as meaningful and relevant. Compared with previous studies that mainly focus on achievement scores, the present study provides additional evidence that motivational factors may partly explain why vocabulary improvement was substantial.

Qualitative findings further support the quantitative results by illustrating how students experienced vocabulary learning through YouTube videos. Learners reported that visual support, real-life situations, and contextual examples helped them understand and remember new words more easily. This finding is consistent with Montero Perez et al. (2018), who argue that audiovisual input strengthens

connections between linguistic form and communicative function. Unlike traditional vocabulary instruction, which often isolates words from context, video-based learning enables learners to observe how vocabulary operates in authentic interaction, enhancing functional understanding and confidence in usage.

Despite these positive outcomes, the study also revealed several challenges that partially differ from the idealized benefits reported in some previous research. Students encountered difficulty with fast speech rates, unfamiliar accents, and inaccurate subtitles, which occasionally hindered comprehension. Kabooha and Elyas (2018) similarly caution that poorly selected video materials may impose excessive cognitive demands on learners. Mayer (2021) emphasizes that multimedia learning must carefully manage cognitive load to prevent information overload. Zhao et al. (2022) further demonstrate that insufficient instructional scaffolding can reduce the effectiveness of video-based learning. These findings highlight that while YouTube offers strong pedagogical potential, its effectiveness depends heavily on material selection, pacing, and instructional support.

Another important implication concerns the role of teacher mediation in technology-enhanced learning. Students emphasized the importance of teacher guidance in selecting suitable videos, clarifying unfamiliar vocabulary, and confirming language accuracy. Dörnyei (2020) stresses that teachers remain central in shaping meaningful learning experiences even when digital tools are used extensively. This finding reinforces Teng's (2018) argument that digital media should complement, not replace, structured pedagogy. In vocational education contexts, where learners require targeted and functional vocabulary, careful instructional design becomes even more critical to ensure alignment between learning objectives and digital content. This study strengthens existing evidence that YouTube-based instruction can significantly enhance vocabulary mastery and learner motivation. It extends previous research by demonstrating a strong practical effect within a vocational EFL setting and by highlighting learner characteristics, contextual relevance, and guided instruction as key contributors to successful outcomes. At the same time, the identified challenges underscore the need for strategic implementation to maximize benefits and minimize potential limitations.

CONCLUSION

This study confirms that YouTube video-based learning significantly improves vocabulary mastery among vocational EFL students and supports positive learning engagement. Students demonstrated measurable vocabulary gains after the instructional intervention, and qualitative findings showed increased motivation, better understanding of word meaning and usage, and greater interest in learning English. These results indicate that YouTube can serve as an effective instructional medium for vocabulary development when used purposefully in classroom practice. In addition to learning benefits, the study also identified challenges related to fast speech rates, subtitle inconsistencies, and the need to verify vocabulary accuracy. These issues emphasize that YouTube should not be used as a stand-alone learning

resource but should be integrated within a structured instructional framework guided by the teacher. Based on these findings, several practical recommendations can be offered for teachers. First, teachers should carefully select videos that match students' language level, learning objectives, and vocational relevance, with clear pronunciation and manageable length. Second, videos should be supported with guided activities such as pre-teaching key vocabulary, focused viewing tasks, and post-viewing practice to reinforce understanding and retention. Third, teachers should encourage students to verify unfamiliar vocabulary through dictionaries or follow-up discussion to ensure accuracy. Finally, providing opportunities for repeated exposure and active use of new vocabulary in speaking or writing tasks can strengthen long-term learning. This study highlights the pedagogical value of integrating YouTube into vocabulary instruction in vocational EFL classrooms when accompanied by thoughtful instructional design and teacher mediation. Future research may further explore long-term learning outcomes, alternative instructional models, and the integration of multiple digital tools to enhance vocabulary learning across diverse educational contexts.

REFERENCES

Alwehaibi, H. O. (2015). The impact of using YouTube in EFL classroom on enhancing EFL students' content learning. *Journal of College Teaching & Learning, 12*(2), 121–126.

Alzahrani, M. (2023). Attitudes toward artificial intelligence in English as a foreign language learning. *International Journal of Language Education, 7*(2), 45–58.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101.

Chen, X., & Kessler, G. (2020). The impact of AI-based automated feedback on English writing: Learner engagement and improvement. *Language Learning & Technology, 24*(3), 86–106.

Creswell, J. W. (2022). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*(7th ed.). Pearson.

Crosthwaite, P., Schweinberger, M., & Lu, X. (2022). Exploring learner interaction with AI in EFL contexts: Challenges and opportunities. *Computer Assisted Language Learning, 35*(7), 1356–1381.

Dörnyei, Z. (2020). *Motivating students and teachers in second language learning*. Routledge.

Etikan, I. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics, 5*(1), 1–4.

Field, A. (2020). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage.

Gao, X., & Zhang, L. J. (2020). Teacher learning in difficult times: Examining foreign language teachers' cognition about grammar teaching. *System, 92*, 102246.

Guetterman, T. C., Fetters, M. D., & Creswell, J. W. (2015). Integrating quantitative and qualitative results in health science mixed methods research through joint displays. *Annals of Family Medicine, 13*(6), 554–561.

Hartini, S., & Suri Ardini, N. (2024). Students' vocabulary mastery and learning difficulties in Indonesian EFL classrooms. *Journal of English Language Teaching and Learning, 8*(1), 45–56.

Ivankova, N. V. (2015). Mixed methods applications in action research: From methods to community action. *Sage*.

Kabooha, R., & Elyas, T. (2018). The effects of YouTube in multimedia instruction for vocabulary learning: Perceptions of EFL students and teachers. *English Language Teaching, 11*(2), 72–81.

Lakens, D. (2022). Sample size justification. *Collabra: Psychology, 8*(1), 33267.

Lestari, S., & Yosintha, R. (2022). Students' perception toward the use of video-based learning platforms in vocabulary learning. *Journal of English Education and Teaching, 6*(2), 215–226.

Masruddin, M., Nur, S., & Halim, A. (2024). The effectiveness of short YouTube videos on EFL students' vocabulary mastery. *Journal of Language Teaching and Research, 15*(1), 112–121.

Mayer, R. E. (2021). *Multimedia learning* (3rd ed.). Cambridge University Press.

Moeller, A. J., Creswell, J. W., & Saville, N. (2016). Second language assessment and evaluation. In F. M. Hult & D. C. Johnson (Eds.), *Research methods in language policy and planning* (pp. 155–168). Wiley.

Montero Perez, M., Van Den Noortgate, W., & Desmet, P. (2018). Captioned video for L2 listening and vocabulary learning: A meta-analysis. *System, 76*, 134–148.

Mustafa, M. (2019). Vocabulary learning problems of EFL learners in Indonesia. *Journal of Language and Literature Education, 14*(2), 101–110.

Nababan, R., & Simanjuntak, D. (2023). Improving students' vocabulary mastery through YouTube videos in EFL classrooms. *Journal of English Language Teaching, 12*(1), 55–63.

Nation, I. S. P. (2020). *Learning vocabulary in another language* (3rd ed.). Cambridge University Press.

Oga-Baldwin, W. L. Q., & Fryer, L. K. (2020). Self-determination theory in second language learning: Motivation, engagement, and achievement. *System, 86*, 102123.

Ryan, R. M., & Deci, E. L. (2020). *Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions*. Academic Press.

Schmitt, N. (2019). *Vocabulary in language teaching* (2nd ed.). Cambridge University Press.

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*(6), 1273–1296.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education, 2*, 53–55.

Teng, F. (2018). Incidental vocabulary acquisition from reading-only and reading-while-listening: A multi-dimensional approach. *Innovation in Language Learning and Teaching, 12*(3), 274–288.

Zhao, Y., Wang, S., & Chen, X. (2022). Effects of video-based instruction and scaffolding on EFL learners' comprehension and engagement. *Educational Technology Research and Development, 70*(4), 2159–2178.

Zulianti, N., & Nurchurifiani, E. (2021). Teacher politeness strategies and student engagement in EFL classrooms. *Indonesian Journal of Applied Linguistics, 11*(1), 145–156.