

INTEGRATING VLOGGING AND HIGHER-ORDER THINKING SKILLS IN UNIVERSITY ENGLISH SPEAKING INSTRUCTION: EVIDENCE FROM A COMPARATIVE CLASSROOM STUDY

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Abstract

The integration of digital technology and higher-order thinking skills (HOTS) has become increasingly important in English language education, particularly in developing university students' communicative competence and 21st-century skills. This study examined the use of vlog-based learning integrated with HOTS-oriented activities in university English speaking instruction. The study employed a comparative pretest-posttest classroom design supported by descriptive qualitative data. The participants were students enrolled in the English Education Study Program at Universitas Muslim Nusantara Al Washliyah, Medan, Indonesia. Data were collected through speaking assessments, classroom observations, documentation, and student responses to the learning activities. The quantitative data were analyzed descriptively by comparing students' learning gains between the vlog-and-HOTS group and the conventional-learning group. The reported statistical analysis indicated a higher mean gain score for the vlog-and-HOTS group ($M = 0.5713$) than for the conventional group ($M = 0.4380$). The statistical output reported in the research documentation also indicated a significant difference between the groups ($F = 35.349$, $p < .001$). Qualitative findings suggested that vlog-based activities provided students with opportunities to research topics, discuss ideas, prepare scripts, practice speaking, produce digital content, collaborate with peers, and reflect on their performance. Overall, the findings suggest that integrating vlogging with HOTS-oriented learning activities can provide a meaningful learning environment for developing university students' English speaking performance and supporting 21st-century competencies. Since the original SPSS dataset was unavailable for reanalysis, the statistical findings are reported based on the aggregated results available in the research documentation.

Keywords: *vlogging, English speaking, 21st-century learning*

Abstrak

Integrasi teknologi digital dan keterampilan berpikir tingkat tinggi (HOTS) telah menjadi semakin penting dalam pendidikan bahasa Inggris, terutama dalam mengembangkan kompetensi komunikatif mahasiswa universitas dan keterampilan abad ke-21. Studi ini meneliti penggunaan pembelajaran berbasis vlog yang diintegrasikan dengan kegiatan berorientasi HOTS dalam pengajaran berbicara bahasa Inggris di universitas. Studi ini menggunakan desain kelas pretest-posttest komparatif yang didukung oleh data kualitatif deskriptif. Pesertanya adalah mahasiswa yang terdaftar dalam Program Studi Pendidikan Bahasa Inggris di Universitas Muslim Nusantara Al Washliyah, Medan, Indonesia. Data dikumpulkan melalui penilaian berbicara, observasi kelas, dokumentasi, dan tanggapan siswa terhadap kegiatan pembelajaran. Data kuantitatif dianalisis secara deskriptif dengan membandingkan peningkatan pembelajaran siswa antara kelompok vlog-dan-HOTS dan kelompok pembelajaran konvensional. Analisis statistik yang dilaporkan menunjukkan skor rata-rata peningkatan yang lebih tinggi untuk kelompok vlog-dan-HOTS ($M = 0.5713$) dibandingkan dengan kelompok konvensional ($M = 0.4380$). Output statistik yang dilaporkan dalam dokumentasi penelitian juga menunjukkan perbedaan signifikan antara kelompok-kelompok tersebut ($F = 35.349$, $p < .001$). Temuan kualitatif menunjukkan bahwa kegiatan berbasis vlog memberikan siswa kesempatan untuk meneliti topik, mendiskusikan ide, menyiapkan naskah, berlatih berbicara, memproduksi konten digital, berkolaborasi dengan teman sebaya, dan merefleksikan kinerja mereka. Secara keseluruhan, temuan tersebut menunjukkan bahwa mengintegrasikan vlogging dengan kegiatan pembelajaran

yang berorientasi pada HOTS dapat menyediakan lingkungan pembelajaran yang bermakna untuk mengembangkan kemampuan berbicara bahasa Inggris mahasiswa universitas dan mendukung kompetensi abad ke-21. Karena dataset SPSS asli tidak tersedia untuk dianalisis ulang, temuan statistik dilaporkan berdasarkan hasil agregat yang tersedia dalam dokumentasi penelitian.

Kata kunci: vlogging, berbicara bahasa Inggris, pembelajaran abad ke-21

1. INTRODUCTION

The rapid development of digital technology has transformed higher education and created new opportunities for English language teaching. In English as a Foreign Language (EFL) contexts, technology-enhanced learning is particularly valuable because students often have limited opportunities to use English for meaningful communication outside the classroom (Godwin-Jones, 2018). Speaking is especially important for students in English Education programs, as prospective teachers are expected to communicate clearly, confidently, and appropriately in academic and professional contexts (Richards, 2008). Nevertheless, many EFL learners continue to experience difficulties related to vocabulary, grammar, pronunciation, fluency, and confidence. Conventional speaking activities may not always provide sufficient opportunities for sustained and meaningful oral communication.

Vlogging offers a potential digital medium for addressing these challenges. Through vlog production, students can organize ideas, prepare scripts, practice oral delivery, record their performance, and communicate with an audience (Mayer, 2021). This process provides opportunities for more authentic and creative speaking practice and encourages students to become active producers of digital content (Dudeney et al., 2013). However, technology alone does not automatically develop higher-order thinking. Therefore, vlog-based learning needs to be integrated with pedagogical strategies that promote analysis, evaluation, problem-solving, creativity, and creation.

The integration of vlogging and Higher-Order Thinking Skills (HOTS) (Anderson & Krathwohl, 2001) may provide a meaningful learning environment for university English speaking instruction. Students can identify issues, gather and evaluate information, discuss possible solutions, develop arguments, prepare scripts, and present their ideas through digital video (Brookhart, 2010). These activities require students to use English while engaging in critical thinking, creativity, collaboration, communication, and digital competence. Such integration is particularly relevant for prospective English teachers, who need not only English proficiency but also the ability to use technology creatively and design meaningful learning experiences.

Although previous studies have reported positive potential of video-based and vlog-based activities for oral practice, engagement, and confidence (Oktaviani et al., 2020; Nuha & Saputri, 2021; Yusuf et al., 2023; Meyer & Patty, 2024; Yürük & Yılmaz, 2025), further research is needed on the integration of vlogging and HOTS in university-level EFL instruction. Therefore, this study examines vlog-based learning integrated with HOTS-oriented activities in university English speaking instruction. Specifically, it investigates whether students participating in vlog-and-HOTS learning demonstrate higher speaking learning gains than those participating in conventional learning and explores students' responses to the approach. The study contributes to technology-enhanced language learning by examining how digital video production and higher-order thinking can be integrated to support English speaking development and 21st-century competencies.

2. METHOD

This study employed a comparative pretest-posttest classroom design supported by descriptive qualitative data. The quantitative component was used to compare students' English speaking performance before and after the learning process and to examine differences in learning gains between a vlog-and-HOTS group and a conventional-learning group. The qualitative component was used to describe the implementation of the learning activities and students' responses to the learning process.

The combination of quantitative and qualitative data provided a broader description of the learning outcomes and classroom experiences associated with the integration of vlogging and HOTS. The study was conducted in a natural classroom setting. The research was not designed as a randomized controlled experiment; therefore, the findings are interpreted as evidence of differences in classroom learning outcomes rather than as definitive proof of a causal effect. The study was conducted in the English Education Study Program at Universitas Muslim Nusantara Al Washliyah, Medan, Indonesia. The participants were university students enrolled in an English language course during the research period.

The research documentation contains inconsistencies regarding the exact number of participants reported in different sections of the study. The methodological description and statistical tables report different sample sizes. Because the original SPSS dataset was not available for reanalysis, the present article reports the aggregated statistical results available in the research documentation and acknowledges the inconsistency as a limitation.

Student responses were used to describe students' perceptions of the learning experience, including their engagement, interest, confidence, and perceived benefits of using vlogging and HOTS-oriented activities. The quantitative data were analyzed descriptively by comparing students' speaking performance and gain scores between the two groups. The reported gain score for the vlog-and-HOTS group was 0.5713, while the reported gain score for the conventional group was 0.4380.

The research documentation also reported assumption testing and an ANOVA analysis. The reported statistical output indicated a statistically significant difference between the groups, with $F = 35.349$ and $p < .001$. Because the original SPSS dataset was not available, the statistical analyses could not be independently re-run. Therefore, the statistical results presented in this article are based on the aggregated statistical results reported in the original research documentation. The qualitative data were analyzed descriptively by organizing and interpreting information obtained from classroom observations, documentation, and student responses. The qualitative findings were then used to provide contextual support for the quantitative results.

3. RESULTS AND DISCUSSION

The reported results indicated that the group participating in the integration of vlogging and HOTS obtained higher learning outcomes than the group receiving conventional instruction. The reported mean gain score for the vlog-and-HOTS group was 0.5713, while the mean gain score for the conventional-learning group was 0.4380. These results indicate that the vlog-and-HOTS group demonstrated a greater improvement in the measured speaking performance.

The statistical output presented in the research documentation also reported a significant difference between the groups: $F = 35.349$, $p < .001$. The correct interpretation of this result is that the null hypothesis of no difference between the group gains was rejected. The results therefore indicate a statistically

significant difference in learning gains between the two groups, with the vlog-and-HOTS group obtaining the higher reported mean gain. The finding suggests that the integration of digital video production and HOTS-oriented activities may provide a productive learning environment for English speaking development. However, because the original dataset was not available for reanalysis, the result should be interpreted as a reported statistical finding rather than as an independently verified analysis.

The qualitative findings suggest that vlog-based activities provided students with opportunities to practice speaking through a structured and meaningful process. Rather than speaking spontaneously without preparation, students were able to plan their content, organize their ideas, prepare a script, practice their delivery, and record their performance. This process may be particularly valuable for EFL learners who experience anxiety or lack confidence when speaking English. The opportunity to rehearse and record a performance can allow students to identify problems in pronunciation, fluency, grammar, and content organization.

Vlogging also provides students with a communicative purpose. Students do not simply speak because they are completing an exercise; they speak in order to communicate ideas through a digital product. This may increase the meaningfulness of speaking practice. In addition, the production of a vlog allows students to combine language use with creativity. Students may make decisions about the topic, presentation style, organization, visual elements, and delivery. Consequently, the learning activity can support both communicative and digital competence.

The integration of HOTS provided cognitive demands that extended beyond memorization and repetition. Students were encouraged to analyze topics, evaluate information, discuss ideas, develop arguments, and create a final digital product. The integration of HOTS is important because effective communication requires more than linguistic knowledge. University students need to communicate ideas, explain opinions, respond to problems, and present arguments. These abilities are particularly relevant for students preparing to become English teachers. The vlog production process provided an appropriate context for HOTS-oriented learning. Students could be asked to investigate an issue, compare information, identify problems, propose solutions, and present their conclusions. Through this process, English became a medium for expressing higher-level thinking.

The combination of HOTS and speaking practice may therefore contribute to a more meaningful learning experience. Students were required to use language while engaging in cognitive activities. This integration is consistent with the demands of 21st-century education, which emphasizes communication, creativity, critical thinking, collaboration, and digital competence. The qualitative findings also indicated that students responded positively to the integration of vlogging and HOTS. The research documentation reported a positive response of 92.89% toward the vlog-and-HOTS learning activities, compared with 84.15% for conventional learning.

The positive responses may be related to the active nature of the learning process. Students were involved in discussion, research, script preparation, video production, presentation, and evaluation. These activities provided greater variation than conventional instruction. The collaborative nature of vlog production may also have contributed to student engagement. Working with peers can provide opportunities for students to exchange ideas, support one another, and share responsibility for the final product (Vygotsky, 1978).

Furthermore, students may have perceived the learning activities as relevant to their everyday digital experiences. Because many students are familiar with video and social media, the use of vlog production may have created a connection between classroom learning and digital communication practices.

However, positive student responses should not be considered direct evidence of speaking improvement. Perception data and performance data measure different aspects of learning. The stronger interpretation is that the vlog-and-HOTS approach was associated with both higher reported learning gains and positive student learning experiences.

The findings have several implications for English language teaching in higher education. First, digital technology should be integrated with clear pedagogical objectives. The use of vlogging is not automatically effective simply because it involves technology. Its educational value depends on how the activity is designed and how students are guided to use the technology. Second, speaking instruction can be designed as a process rather than a single performance. Students can be guided through planning, research, discussion, drafting, rehearsal, production, feedback, and reflection. Such a process provides multiple opportunities for language use.

Third, vlog-based activities can support the development of several 21st-century skills. Communication is developed through oral presentation, collaboration through group work, creativity through content production, critical thinking through analysis and evaluation, and digital competence through video production. Fourth, the approach may be particularly relevant for prospective English teachers. As future teachers, students need to develop not only English proficiency but also the ability to use technology creatively and design meaningful learning experiences.

4. CONCLUSION AND SUGGESTIONS

4.1 Conclusion

This study examined the integration of vlogging and Higher-Order Thinking Skills in university English speaking instruction. Based on the aggregated results available in the research documentation, the vlog-and-HOTS group obtained a higher mean gain score ($M = 0.5713$) than the conventional-learning group ($M = 0.4380$). The statistical output reported in the original research documentation also indicated a statistically significant difference between the groups ($F = 35.349$, $p < .001$). The result suggests that students participating in the integration of vlog-based learning and HOTS-oriented activities demonstrated greater reported improvement in English speaking performance than students receiving conventional instruction.

The qualitative findings further suggest that vlog-based learning provided opportunities for students to engage in research, discussion, script preparation, speaking practice, digital content production, collaboration, presentation, and reflection. These activities created a learning environment that connected English speaking development with higher-order thinking and digital competence. Overall, the findings suggest that the integration of vlogging and HOTS can be a promising approach for university English speaking instruction. The approach is particularly relevant to 21st-century learning because it integrates communication, creativity, critical thinking, collaboration, and digital technology.

Nevertheless, the findings must be interpreted with caution because the original research documentation contains inconsistencies in the reported number of participants and the original SPSS dataset was unavailable for independent reanalysis. Future studies should verify the participant data and statistical analyses before making stronger causal claims.

4.2 Suggestions

Future research should clearly define the number and characteristics of participants and ensure consistency across the research method, statistical tables, and results. Further studies should use a clearly specified quasi-experimental or experimental design with verified participant data. The original dataset should be retained to enable independent verification and reanalysis. Future research should also use a validated speaking assessment rubric (Fulcher & Davidson, 2012) that includes relevant dimensions such as fluency, pronunciation, vocabulary, grammatical accuracy, comprehensibility, and organization of ideas. Inter-rater reliability should also be considered.

Further research may investigate the effects of vlogging and HOTS separately and in combination. Such research could provide a clearer understanding of the contribution of digital video and higher-order thinking activities to English speaking development. Finally, future studies may examine additional outcomes, including speaking anxiety, self-efficacy, willingness to communicate, learner autonomy, digital competence, and reflective practice.

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