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A YouTube-Based Project-Based Learning Model for Enhancing EFL Speaking Skills and Character Development

Immanuel Prasetya Gintings, Khairunnisa Br Batubara, Christine Helena Natalia, Yuni Khairina and Barli Kifli
Universitas Negeri Medan, Faculty of Languages and Arts, English and Literature Department

Abstract

This study aimed to design, develop, and evaluate a YouTube-based Project-Based Learning (PjBL) role-play model to support EFL students' speaking skills and character development in higher education. Using a design and development research approach, the instructional media were developed through the ADDIE model and implemented within a quasi-experimental pre-test and post-test design involving an experimental and a control group. Participants were undergraduate students in an English Language Education program. Data were collected through speaking performance tests, character development questionnaires, expert validation, and student reflections. The results revealed that the experimental group significantly outperformed the control group in post-test speaking performance, with significant differences and large effect sizes, particularly in fluency, pronunciation, and vocabulary. Significant improvements were also observed in character-related aspects, including self-confidence, collaboration, and creativity. These findings indicate that integrating role-play, digital video production, and structured reflection within a systematic instructional design framework can effectively support both language development and character building in EFL contexts.

Keywords: *character development; EFL speaking skills; project-based learning; role-play; YouTube-based learning*

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Introduction

The increasingly massive integration of digital technology in higher education has changed the way students learn, communicate, and build their academic identities. For Generation Z students, digital platforms not only serve as learning tools but also as primary spaces for interaction, self-expression, and participation in social and academic communities (Chardonnens, 2023; Engwall & Lopes, 2025). In the context of learning English as a Foreign Language (EFL), this transformation encourages increased attention to the use of digital media for the development of speaking skills. However, despite students being accustomed to uploading videos, interacting online, and collaborating through digital platforms, many of them still struggle to convey ideas clearly, confidently, and creatively in academic English. This condition indicates a persistent gap between digital literacy and communicative competence, which underscores that high digital engagement does not automatically result in effective speaking skills (Busso, 2024; Hui et al., 2023). This phenomenon reflects the broader challenge of integrating digital technologies meaningfully into language pedagogy, where tools such as video-based platforms are widely used but not always pedagogically optimized (Knežević et al., 2022). This situation highlights the need for pedagogical approaches that explicitly bridge digital engagement with the development of speaking competencies. In higher education, speaking skills are increasingly understood as a multidimensional construct that not only includes linguistic accuracy but also fluency, confidence, collaboration skills, and creativity.

Speaking skills play an important role in shaping students' academic identity, social engagement, and professional readiness. Therefore, EFL learning is expected not only to develop communicative abilities but also to foster character traits such as self-confidence, collaboration, and independent learning. In line with this perspective, learning approaches that integrate language development and character formation are increasingly gaining attention in contemporary pedagogical discourse. Thus, speaking lessons are positioned as a means of developing both the linguistic skills and character of students. One of the approaches widely discussed in the literature is Project-Based Learning (PjBL), which is recognized for its potential to encourage meaningful communication, independent learning, and collaborative problem-solving. This approach is aligned with constructivist learning principles, which emphasize active knowledge construction through meaningful and collaborative learning experiences (Drljača, 2020). Through the design and completion of authentic projects, PjBL encourages students to actively engage in language use while also developing responsibility and teamwork (Adilah, 2023; Guo et al., 2020; Novalia et al., 2025). Several empirical findings indicate that PjBL can support the development of speaking skills and character growth if learning activities are designed to require continuous interaction and shared responsibility. However, the effectiveness of PjBL greatly depends on the instructional strategies integrated within the project cycle. Therefore, PjBL requires supporting strategies that can ensure sustainable and reflective speaking practices.

Role-play is one of the strategies often used in PjBL-based learning because it involves students in communication situations that demand spontaneous dialogue, emotional engagement, and perspective-taking. Through simulations of real interactions, role-play has been proven to enhance speaking practice and student engagement (Löfstrand & Zakrisson, 2025). However, previous research shows that the implementation of role-play in the classroom is often limited by the lack of opportunities for systematic feedback, reflection, and refinement of speaking performance. These limitations have the potential to hinder the sustainable development of speaking skills and the deep formation of character (Goram & Subekti, 2022). Mechanisms that enable continuous evaluation and performance improvement are necessary to support role-play. Along with that, the integration of digital media increasingly influences the learning experience, communication space, and the formation of student identity (Engeness & Gamlem, 2025; Reyna & Meier, 2018). As a participatory digital platform, YouTube offers various pedagogical affordances relevant to learning speaking in EFL, such as opportunities for repeated performances, feedback from peers and a wider audience, as well as documentation of learning progress (Colasante, 2022; Xiaodi et al., 2024). YouTube's comment and content-sharing features make it easier for people to work together to build knowledge and support a cycle of performance, reflection, and improvement (Dubovi, 2020). That affordance shows that YouTube can function as a pedagogical space that supports speaking practices beyond the constraints of time and classroom space. Previous research also indicates that video-based platforms such as YouTube are frequently used in foreign language teaching to deliver content and facilitate student engagement, although their pedagogical integration still requires improvement (Knežević et al., 2022). Interaction in communicative activities such as role-play is essential in EFL contexts, as it supports language development through meaningful communication and negotiation of meaning (Iyitoglu, 2016)

Although research on project-based learning, role-play, and the use of digital media in the context of EFL continues to develop, most studies still examine these three elements separately. Research that systematically integrates all three within a coherent learning design framework, particularly linking speaking performance with character development, is still limited. Moreover, existing findings tend to be fragmented and do not provide an adequate picture of how collaborative digital production processes can foster confidence and the ability to collaborate through structured cycles of performance, feedback, and reflection (Benlaghrissi & Ouahidi, 2024; Habibi et al., 2024; Pamuji et al., 2025). This fragmentation underlines the importance of an integrative learning model that connects pedagogy, digital media, and character achievements. The use of digital instructional technologies has been shown to enhance learners' motivation and support the development of language-related skills in EFL contexts (Akay, 2018).

This study designs, develops, and evaluates YouTube-based project-based learning media utilizing the ADDIE learning design model, addressing the identified gap.

The novelty of this research lies in the integration of PjBL, structured role-play, and digital reflection within a systematic design framework to explain how the repetitive cycle between performance, feedback, and reflection can enhance the speaking fluency of EFL students while also strengthening their confidence and collaboration. Furthermore, this research offers a practical learning model that is easy for lecturers to adopt by utilizing accessible technology. Thus, this research provides empirical and pedagogical contributions to the development of character-oriented, digital-based EFL speaking learning in higher education.

Methodology

Design and learning framework

This research uses a design and development research approach with the ADDIE model as the learning design framework to design and evaluate EFL speaking learning media based on YouTube (Branch, 2009; Nadiyah & Faaizah, 2015). The ADDIE model is used to ensure the integration between learning objectives, pedagogical activities, and the evaluation process. The development and evaluation of learning media in this study are guided by the ADDIE design framework, as shown in Figure 1.

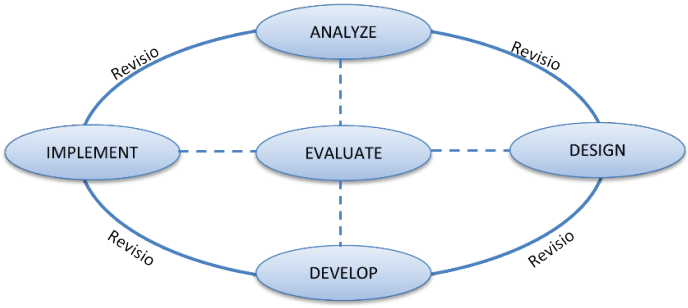


Figure 1. The ADDIE learning design framework that guides the design, implementation, and evaluation process of YouTube-based project-based learning

The ADDIE framework is operationalized thru five stages: analysis, design, development, implementation, and evaluation. The analysis stage focuses on identifying the speaking skills and character aspects needed by students. The design and development stages integrate Project-Based Learning, structured role-play, and YouTube as a mediation space for learning to support the cycles of performance, feedback, and reflection. The developed media was then implemented in the experimental group, while the control group followed conventional speaking lessons.

To assess the effectiveness of the developed media, this study employs a quasi-experimental pre-test and post-test design involving an experimental group and a control group (Creswell & Creswell, 2018). Qualitative data is utilized to complement quantitative findings and enrich the understanding of students' learning experiences during the implementation of digital project-based learning (Creswell & Creswell, 2018).

Participants

The sample of participants comprised 60 students from the English Education Study Program at Universitas Negeri Medan, aged 18–21 years, who were evenly divided into experimental and control groups. Research ethics are maintained through participant consent, data confidentiality, and voluntary participation.

Instruments and data collection procedures

Students' speaking skills were measured using an analytical rubric that included fluency, language accuracy, pronunciation, and interaction ability (Brown, 2004). The use of this rubric supported assessment consistency and diagnostic feedback (Schreiber et al., 2012) and was appropriate for the context of technology-based speaking assessments (Youn, 2023). Character aspects, including self-confidence, collaboration, and creativity, were measured using a Likert scale questionnaire adapted from the global competency framework. Speaking tests and character questionnaires were administered to both groups at the pre-test and post-test stages. Qualitative data were obtained from student reflections and learning artifacts produced during the implementation of the YouTube-based project.

Data analysis

Quantitative data were analysed using descriptive and inferential statistics. Descriptive statistics were used to present the mean and standard deviation values for the speaking ability and character development variables in the experimental and control groups, both at the pre-test and post-test stages (Field, 2013). Before the inferential analysis, assumption tests were conducted. Data normality was tested using the Kolmogorov–Smirnov and Shapiro–Wilk tests, while homogeneity of variance was tested using Levene's test. In cases of violation of homogeneity, the equal variances not assumed approach was used. Despite small deviations from normality, parametric analysis was still used, considering the adequate sample size and the robust nature of the t-test (Razali & Wah, 2011). Inferential analysis was conducted using paired samples t-tests to examine within-group changes between the pre-test and post-test, and independent samples t-tests to compare differences in post-test results between the experimental and control groups (Kim, 2015). To complement the interpretation of statistical significance, effect sizes were calculated using Cohen's d. For within-group analyses, the formula $d = t / \sqrt{n}$ was used, while for between-group analyses, effect sizes were calculated based on the mean difference between groups. Interpretation of effect sizes refers to Cohen's (1988) criteria, namely small (0.2), medium (0.5), and large (0.8). Reporting effect sizes is recommended to provide information about the magnitude of the effect in addition to the significance value (p-value) (Lakens, 2013). All analyses were conducted at a significance level of 0.05. Qualitative data were analysed using the interactive model of Miles, Huberman, and Saldaña (2014), which includes the stages of data condensation, data presentation, and conclusion drawing to identify themes related to self-confidence, collaboration, and creativity.

Result

Product development results (Output R&D)

Learning media were developed through five stages of the ADDIE model, which include analysis of student needs, design of role-play scenarios and assessment rubrics, development of YouTube-based tasks validated by experts, implementation of an eight-week intervention, and formative and summative assessment of speaking skills and character development learning outcomes. At the analysis stage, a learner analysis was conducted to identify the characteristics of Generation Z students, their language proficiency levels, and their preferences for using digital media in learning. Content analysis was conducted to establish the targeted components of speaking skills (fluency, pronunciation, and vocabulary) as well as character aspects (collaboration, creativity, and confidence).

The design phase produced role-play scenarios based on authentic contexts as well as planning the integration of YouTube for recording, uploading, and reflecting on speaking performance. The evaluation rubric was designed to assess speaking skills and character aspects. At the development stage, sample videos and YouTube usage guidelines were developed and tested on a limited basis. Figure 2 shows the initial appearance of the tutorial video "Building Confidence Through Role Play" used in the learning process.

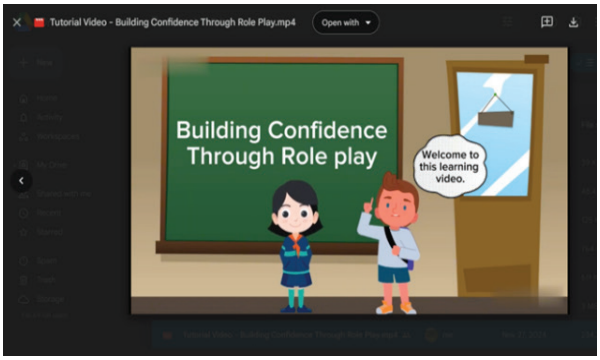


Figure 2. The tutorial video - "Building confidence through role play"

Expert validation

The learning media was validated by two experts, namely a media expert and a content expert. The aspects evaluated included relevance of the material, visual and audio quality, suitability with the characteristics of Generation Z students, ease of use, and the pedagogical potential of the media. The validation results show that the media received good to very good ratings in all assessed aspects. Improvement suggestions mainly relate to refining video transitions, adding variations in communication scenarios, and clarifying the instructions for using YouTube features. The summary of the expert validation results is presented in Table 1.

Table 1
Expert validation results

Aspect evaluated	V1 (Media expert)	V2 (Content expert)	Suggestions
Relevance of content	Good: Content aligns with learning objectives.	Excellent: The scenarios reflect students' real communication needs.	Add more diverse examples to expand the range of communication scenarios.
Visual and audio quality	Excellent: Visuals and audio are clear and engaging.	Good: Audio is clear, but transitions require improvement.	Smooth transitions between scenes to make the video flow smoother.
Suitability for Gen-Z learners	Excellent: Digital-based media aligns with Gen-Z learning styles.	Excellent: Engaging and aligned with learners' preferences.	Add animation elements to enhance visual appeal and engagement.
Ease of access and use	Good: YouTube platform is easy to access.	Good: Students can easily access via shared links.	Provide clearer instructions for using YouTube features such as comments and polls.
Potential for improving speaking skills	Good: Role-play encourages active speaking practice.	Excellent: Motivates students to communicate in English.	Add scenarios with direct student interaction to further strengthen dialogue skills.

Descriptive analysis

Descriptive analysis was conducted to provide an overview of changes in speaking ability and character development scores before and after the intervention. Descriptive statistics for speaking ability and character development are presented in Table 2.

Table 2
Descriptive statistics of speaking skills and character development scores

Variable	Group	Pre (M±SD)	Post (M±SD)	Gain
Speaking skill	Experimental	62.10 ± 3.87	80.04 ± 3.22	+17.94
	Control	62.20 ± 3.95	66.87 ± 3.95	+4.67
Character development	Experimental	3.27 ± 0.63	4.56 ± 0.49	+1.29
	Control	3.39 ± 0.77	3.70 ± 0.73	+0.31

Note: Note: M = Mean; SD = Standard deviation

Based on the results in Table 2, the experimental group showed greater improvement than the control group. In speaking ability, the experimental group improved from M = 62.10 (SD = 3.87) to M = 80.04 (SD = 3.22), while the control group improved from M = 62.20 (SD = 3.95) to M = 66.87 (SD = 3.95). In character development, the experimental group improved from M = 3.27 (SD = 0.63) to M = 4.56 (SD = 0.49), while the control group only improved from M = 3.39 (SD = 0.77) to M = 3.70 (SD = 0.73). These results indicate that improvement in the experimental group was more pronounced than in the control group in both variables.

Assumption testing

Although descriptive analysis provides an initial overview of score changes, further testing was conducted to ensure that the data met the assumptions required for parametric analysis. One of the key assumptions is the normal distribution of the data; therefore, normality tests were performed using the Kolmogorov–Smirnov and Shapiro–Wilk tests. The results are presented in Table 3.

Table 3
Normality test of speaking skills and character development scores

Variable	Group	Test	Kolmogorov–Smirnov (p)	Shapiro–Wilk (p)	Decision
Speaking skills	Experimental	Pre-Test	0.20	0.58	Normal
		Post-Test	0.20	0.73	Normal
	Control	Pre-Test	0.20	0.44	Normal
		Post-Test	0.20	0.44	Normal
Character development	Experimental	Pre-Test	0.17	0.11	Normal
		Post-Test	0.12	0.14	Normal
	Control	Pre-Test	0.03	0.04	Not normal
		Post-Test	0.03	0.03	Not normal

The results indicate that all speaking skill variables were normally distributed ($p > .05$) in both groups. For character development, the experimental group met the normality assumption, whereas the control group showed deviations from normality in both pre-test and post-test ($p < .05$). However, given the adequate sample size ($n = 30$ per group), parametric tests were retained, as t-tests are considered robust to moderate violations of normality. Despite minor violations of normality in the control group, parametric tests were retained due to sample size adequacy and robustness of the t-test.

The homogeneity test was conducted using Levene's Test. The homogeneity of variance test was conducted to ensure equality of variance between the experimental and control groups. The results of the Levene's Test are presented in Table 4.

Table 4
Homogeneity of variance of speaking skills data (Levene's Test)

Group	Test	Levene's F	Sig. (p)	Decision
Speaking skills	Pre-Test	0.01	0.92	Homogeneous
	Post-Test	1.58	0.21	Homogeneous
Character development	Pre-Test	1.48	0.23	Homogeneous
	Post-Test	6.44	0.01	Not homogeneous

The results show that the speaking skills data met the assumption of homogeneity for both pre-test ($p = .912$) and post-test ($p = .21$). For character development, the pre-test data were also homogeneous ($p = .23$), whereas the post-test data violated the homogeneity assumption ($p = .01$). Therefore, subsequent analysis for this variable was interpreted using the equal variances not assumed approach.

Inferential analysis

Following the assumption testing, inferential analysis was carried out to evaluate whether the observed differences between groups were statistically significant. The results of the independent-samples t-test comparing the experimental and control groups in terms of speaking skills are presented in Table 5.

Table 5
Independent samples t-test results for speaking skills and character development

Variable	Test	t	df	p-value	95 % Confidence interval	Decision
Speaking skills	Pre-Test	0.099	58	0.921	[-1.92, 2.12]	Not significant
	Post-Test	-14.175	58	< 0.001	[-15.04, -11.32]	Significant
Character development	Pre-Test	0.680	58	0.499	[-0.24, 0.48]	Not significant
	Post-Test	-5.412	50.71	< 0.001	[-1.19, -0.54]	Significant

Note: The post-test result for character development was interpreted using the equal variances not assumed approach due to violation of the homogeneity assumption.

Based on Table 5, the pre-test results for speaking ability showed no statistically significant difference between the experimental and control groups, $t(58) = 0.099$, $p = 0.921$. This indicates that both groups had comparable initial abilities before the intervention. However, a statistically significant difference was found in the post-test between the two groups, $t(58) = -14.175$, $p < 0.001$, with a 95 % confidence interval of -15.04, -11.32. This result indicates that the experimental group achieved higher speaking ability scores than the control group after the intervention.

Regarding character development, the pre-test results also showed no statistically significant difference between the two groups, $t(58) = 0.680$, $p = 0.499$, indicating that the initial conditions of the two groups were relatively equivalent. In contrast, a statistically significant difference was found in the post-test between the experimental and control groups, $t(50.71) = -5.412$, $p < 0.001$, with a 95 % confidence interval of -1.19, -0.54. Because the assumption of homogeneity of variance was not met, these results were interpreted using the equal variances not assumed approach. Overall, these findings indicate that the intervention was associated with improvements in speaking skills and character development, with the experimental group performing better than the control group at the post-test.

To analyse changes in each group, paired samples t-tests were conducted on pre-test and post-test scores for speaking ability and character development. The results are presented in Table 6.

In the experimental group, the results showed a significant improvement in speaking ability, $t (29) = -111.675$, $p < 0.001$, with a 95 % confidence interval (-18.27, -17.62). Furthermore, character development also experienced a significant improvement, $t(29) = -44.000$, $p < 0.001$, with a 95 % confidence interval (-1.35, -1.23). In the control group, speaking ability also showed a significant improvement, $t(29) = -3.848$, $p < 0.001$, with

Table 6
Paired samples t-test results for speaking skills and character development

Variable	Group	Mean difference	t	df	p-value	95% Confidence interval	Decision
Speaking skills	Experimental	-17.944	-111.675	29	< 0.001	[-18.27, -17.62]	Significant
	Control	-4.767	-3.848	29	< 0.001	[-7.30, -2.23]	Significant
Character development	Experimental	-1.292	-44.000	29	< 0.001	[-1.35, -1.23]	Significant
	Control	-0.304	-48.025	29	< 0.001	[-0.32, -0.29]	Significant

a 95 % confidence interval (-7.30, -2.23). However, the magnitude of this improvement was smaller than that of the experimental group. Character development in the control group also experienced significant improvement, $t(29) = -48.025$, $p < 0.001$, with a 95 % confidence interval of [-0.32, -0.29]. Overall, although both groups experienced improvement, the experimental group showed significantly greater improvement, particularly in speaking skills, indicating the effectiveness of the intervention.

Table 7
Effect size (Cohen's d) for within-group and between-group comparisons

Comparison Type	Group	Variable	Cohen's d	Interpretation
Within-group (Paired)	Experimental	Speaking Skills	20.39	Very Large
	Experimental	Character Development	8.03	Very Large
	Control	Speaking Skills	0.70	Medium
	Control	Character Development	8.77	Very Large
Between-group (Independent, Post-test)	Experimental vs Control	Speaking Skills	3.60	Very Large
	Experimental vs Control	Character Development	1.40	Large

To provide a more comprehensive picture of the magnitude of the intervention's impact, effect sizes were calculated using Cohen's d for both within-group and between-group analyses. The results are presented in Table 7.

In the within-group analysis, the experimental group demonstrated very large effect sizes for speaking ability ($d = 20.39$) and character development ($d = 8.03$), indicating significant improvement after the intervention. In the control group, speaking ability demonstrated a moderate effect size ($d = 0.70$), while character development demonstrated a large effect size ($d = 8.77$). In the between-group analysis based on post-test scores, a very large effect size was obtained for speaking ability ($d = 3.60$) and a large effect size for character development ($d = 1.40$). This indicates that the experimental group had a substantial advantage over the control group after the intervention. These results indicate that the intervention not only resulted in significant improvement in the experimental group but also resulted in a meaningful difference compared to the control group. However, it should be noted that the unusually large effect sizes observed in this study may be influenced by low score variability and highly consistent

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Students' perception of YouTube-based role-play media

The results of the analysis of student perceptions toward YouTube-based role-play media are presented in Figure 5. Approximately 80 % of students reported positive perceptions regarding collaboration aspects, 65 % regarding self-confidence, and 85 % regarding learning engagement.

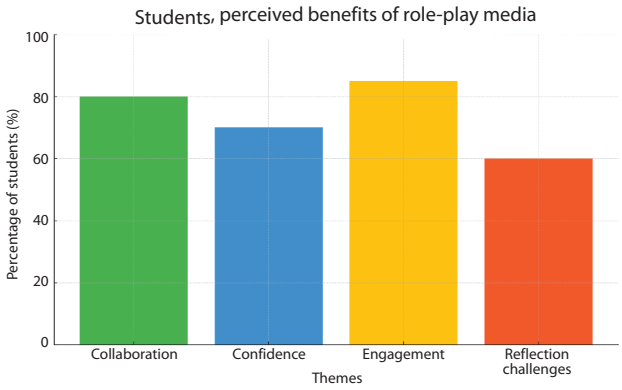


Figure 5. Students' perception towards the benefit of YouTube

Qualitative data show that students view group-based role-play activities as supportive of collaborative interaction. Some students also reported increased comfort in expressing their ideas after repeatedly recording videos. Around 80 % of students stated that role-playing media improved their collaboration skills. Many felt that group work helped improve their speaking skills, as one student commented:

"*We helped each other perfect our dialogue and practiced together, so learning was more fun.*"

This interactive, group-based activity created a collaborative atmosphere that encouraged mutual support and effective communication. Regarding self-confidence, around 65 % of students felt more confident expressing themselves. The ability to re-record videos provided a space for repeated practice, which reduced anxiety. One student said,

"*Recording myself made me more confident after a few tries.*"

The semi-structured, low-pressure learning environment allowed students to practice without fear of judgment, helping them overcome communication barriers. The highest level of positive responses—around 85 %—appeared in the engagement aspect. The creative and familiar YouTube platform heightened student interest, with one commenting,

"*It felt like making a real movie; YouTube makes it more fun*."

The integration of digital media and interactive assignments made learning more dynamic and enjoyable, thus maintaining their motivation. Conversely, the theme of the reflection challenge received the lowest approval rating, at only 50 %. Some students struggled with self-evaluation, as illustrated by one participant commenting,

"It's hard to self-evaluate because I don't know what I'm good at or not."

This finding suggests the need for additional support, such as reflection guides or self-assessment examples, to enable students to more effectively utilize reflection activities to develop their speaking skills.

Discussion

The results of this study indicate that the use of a project-based role-play model integrated with YouTube is associated with significant improvements in students' speaking skills and character development. These findings are consistent with previous research indicating that digital learning environments can enhance language learning outcomes by providing authentic and interactive learning experiences (Akay, 2018). Findings from independent samples t-tests and paired samples t-tests indicate that the experimental group achieved higher scores than the control group after the intervention, with a large effect size, particularly for speaking skills. This indicates that the integration of video-based role-play activities provides a meaningful and effective learning experience in an EFL learning context.

The improvement in speaking skills can be explained by the multimodal digital learning environment, which allows students to actively engage in language use through authentic and contextual communication. The opportunity to repeatedly practice, record, and evaluate their own performance contributes to increased fluency and confidence. These findings align with previous research suggesting that multimedia environments can enhance the learning experience by providing a structured and authentic communication context (BavaHarji et al., 2014). Furthermore, the flexibility of video-based assignments allows students to learn without being constrained by time and place, which is an advantage over conventional EFL learning.

The results of this study also align with the characteristics of Generation Z learners, who tend to prefer visual, interactive, and participatory learning environments (Alruthaya et al., 2021). The integration of YouTube as a learning platform aligns with these preferences, thereby increasing student engagement and participation. The significant difference between the experimental and control groups indicates that the use of media relevant to the characteristics of digital learners positively contributes to student learning outcomes and engagement.

Regarding character development, this study found that the experimental group demonstrated greater improvements in collaboration, creativity, and self-confidence than the control group. Although both groups experienced statistically significant

improvements, the magnitude of change in the experimental group was significantly greater. This indicates that role-play activities combined with digital project-based learning can create meaningful social interactions and support students' affective development. These findings align with the principles of Project-Based Learning and experiential learning, which emphasize the importance of collaboration and the development of high-level interpersonal skills (Bell, 2010; Igel & Urquhart, 2012). Through digital production and role-playing activities, students are engaged in the development of dialogue, negotiation of objectives, and group coordination. Consequently, this study demonstrates that digital project-based learning has the potential to stimulate character development in accordance with the requirements of 21st-century education. This is also supported by studies highlighting that digital and web-based learning environments promote collaboration, reflective thinking, and the development of 21st-century competencies (Arslan, 2023).

The use of video as a learning medium allows students to reflect on their performance through playback. This supports the development of metacognitive awareness in independent learning. However, based on student responses, not all students are able to engage in in-depth reflection. This finding is consistent with previous research stating that reflective practice requires adequate guidance and scaffolding to develop optimally (Casey & Jones, 2011). Therefore, the role of lecturers remains crucial in facilitating the reflection process in digital-based learning.

The results of this study also emphasize the importance of quality instructional design in multimodal digital environments. Students assessed that visual clarity, ease of use, and a systematic instructional structure contributed to a positive learning experience. The use of the ADDIE model in this study provided a systematic framework for designing learning objectives, pedagogical activities, and evaluation (Branch, 2009). This suggests that the effectiveness of technology utilization in language learning depends not only on the media used but also on the quality of the instructional design implemented. This research demonstrates that the structure of learning design is a critical factor in the effective utilization of technology in language education.

While the results of this study demonstrate positive findings, several limitations warrant consideration. First, the relatively limited sample size and its origin from a single institutional context may affect the generalizability of the research findings. Second, this study focused on short-term impacts, so the long-term effects of the intervention cannot yet be definitively determined. Further research is recommended to test the sustainability of learning outcomes, implement the model in more diverse contexts, and consider additional control variables to strengthen causal interpretation. This study demonstrates that YouTube-based role-play learning has strong potential to improve students' speaking skills and character development in an EFL context. These findings provide empirical support for the integration of digital, project-based, and multimodal learning approaches in higher education.

Conclusion

This study shows that the use of YouTube-based role-playing activities is associated with significant improvements in students' speaking skills and character development in an EFL context. The experimental group performed better than the control group, with a large effect size, particularly for speaking skills, indicating the robustness of the intervention. These findings support constructivist and experiential learning approaches and confirm that integrating digital media aligned with the characteristics of Generation Z learners can enhance engagement and learning effectiveness. Practically, the use of YouTube in role-playing activities can be an effective alternative learning strategy, especially when supported by systematic learning design and adequate reflective guidance. However, the limitations of this study lie in the limited sample size and focus on short-term impacts. Therefore, further research is recommended to test the sustainability of the results and expand the implementation context to strengthen the generalizability of the findings. This study provides empirical evidence that project-based learning supported by digital media has strong potential to improve the quality of language learning and student character development.

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Immanuel Prasetya Gintings
Universitas Negeri Medan, Faculty of Languages and Arts, English and Literature Department
Jl. Willem Iskandar Psr V, Medan Estate, Percut Sei Tuan, Deli Serdang, Sumatera Utara
20371, Medan, Indonesia
manuprojectpro@unimed.ac.id

Khairunnisa Br Batubara
Universitas Negeri Medan, Faculty of Languages and Arts, English and Literature Department
Jl. Willem Iskandar Psr V, Medan Estate, Percut Sei Tuan, Deli Serdang, Sumatera Utara
20371, Medan, Indonesia
khaibara@unimed.ac.id

Christine Helena Natalia
Universitas Negeri Medan, Faculty of Languages and Arts, English and Literature Department
Jl. Willem Iskandar Psr V, Medan Estate, Percut Sei Tuan, Deli Serdang, Sumatera Utara
20371, Medan, Indonesia
christinehelena@unimed.ac.id

Yuni Khairina
Universitas Negeri Medan, Faculty of Languages and Arts, English and Literature Department
Jl. Willem Iskandar Psr V, Medan Estate, Percut Sei Tuan, Deli Serdang, Sumatera Utara
20371, Medan, Indonesia
yuni_khairina@unimed.ac.id

Barli Kifli
Universitas Negeri Medan, Faculty of Languages and Arts, English and Literature Department
Jl. Willem Iskandar Psr V, Medan Estate, Percut Sei Tuan, Deli Serdang, Sumatera Utara
20371, Medan, Indonesia
barlikifli@unimed.ac.id

Model projektnog učenja temeljen na YouTubeu za unapređenje govornih vještina engleskog kao stranog jezika (EFL) i razvoja karaktera

Sažetak

Cilj ovoga istraživanja bio je osmisliti, razviti i evaluirati model igranja uloga u okviru projektnoga učenja (Project-Based Learning – PjBL) temeljen na platformi YouTube kako bi se podržao razvoj govornih vještina i karaktera studenata engleskoga jezika kao stranoga jezika (EFL) u visokom obrazovanju. Primijenjen je pristup istraživanja razvoja i dizajna, pri čemu su nastavni materijali razvijeni primjenom modela ADDIE te implementirani putem kvazieksperimentalnoga nacrat s predtestom i posttestom koji je uključivao eksperimentalnu i kontrolnu skupinu. Sudionici istraživanja bili su studenti preddiplomskoga studija obrazovanja nastavnika engleskoga jezika. Podatci su prikupljeni testovima govorne izvedbe, upitnicima za procjenu razvoja karaktera, stručnom validacijom te studentskim refleksijama. Rezultati su pokazali da je eksperimentalna skupina postigla značajno bolje rezultate od kontrolne skupine u govornoj izvedbi nakon intervencije, uz statistički značajne razlike i velike veličine učinka, osobito u tečnosti govora, izgovoru i vokabularu. Značajna poboljšanja zabilježena su i u aspektima razvoja karaktera, uključujući samopouzdanje, suradnju i kreativnost. Nalazi upućuju na to da integracija igranja uloga, digitalne videoprodukcije i strukturirane refleksije unutar sustavno osmišljenoga nastavnog okvira može učinkovito poduprijeti razvoj jezika i izgradnju karaktera u EFL okružjima.

Ključne riječi: *govorne vještine engleskog kao stranog jezika; igranje uloga; projektno učenje; razvoj karaktera; učenje temeljeno na YouTubeu*

Uvod

Sve intenzivnija integracija digitalne tehnologije u visoko obrazovanje promijenila je način na koji studenti uče, komuniciraju i oblikuju svoj akademski identitet. Za pripadnike Generacije Z digitalne platforme ne služe samo kao alati za učenje, već i kao primarni prostori za interakciju, samoizražavanje i sudjelovanje u društvenim i

akademskim zajednicama (Chardonnens, 2023; Engwall i Lopes, 2025). U kontekstu učenja engleskoga jezika kao stranoga jezika (EFL), ova transformacija potaknula je veće zanimanje za korištenje digitalnih medija u razvoju govornih vještina. Međutim, iako su studenti navikli objavljivati videozapise, komunicirati na internetu i surađivati putem digitalnih platformi, mnogi se i dalje suočavaju s poteškoćama u jasnom, samouvjerenom i kreativnom izražavanju ideja na akademskome engleskom jeziku. Takvo stanje ukazuje na postojanje trajnoga jaza između digitalne pismenosti i komunikacijske kompetencije, naglašavajući da visoka razina digitalne angažiranosti ne rezultira nužno učinkovitim govornim vještinama (Busso, 2024; Hui i sur., 2023). Ovaj fenomen odražava širi izazov smislenoga integriranja digitalnih tehnologija u jezičnu pedagogiju, pri čemu se alati poput videoplatformi široko koriste, ali nisu uvijek pedagoški optimalno primijenjeni (Knežević i sur., 2022). Takva situacija naglašava potrebu za pedagoškim pristupima koji izravno povezuju digitalnu angažiranost s razvojem govornih kompetencija. U visokome obrazovanju govorne se vještine sve više promatraju kao višedimenzionalni konstrukt koji uključuje ne samo jezičnu točnost, već i tečnost govora, samopouzdanje, suradničke vještine i kreativnost.

Govorne vještine imaju važnu ulogu u oblikovanju akademskoga identiteta studenata, njihovoj društvenoj uključenosti i profesionalnoj spremnosti. Stoga se od EFL nastave očekuje ne samo razvoj komunikacijskih sposobnosti, već i poticanje karakteristika poput samopouzdanja, suradnje i samostalnoga učenja. U skladu s tim pristupom, modeli poučavanja koji integriraju razvoj jezika i izgradnju karaktera sve više privlače pozornost suvremenih pedagoških istraživanja. Govorna nastava tako postaje sredstvo za razvoj i jezičnih kompetencija i karaktera studenata.

Jedan od pristupa koji se često ističe u literaturi jest projektno učenje (Project-Based Learning – PjBL), poznato po svojem potencijalu za poticanje smislenoga komuniciranja, samostalnoga učenja i suradničkoga rješavanja problema. Ovaj pristup usklađen je s konstruktivističkim načelima učenja koja naglašavaju aktivnu izgradnju znanja smislenim i suradničkim iskustvom učenja (Drljača, 2020). Osmišljavanjem i provedbom autentičnih projekata, PjBL potiče studente na aktivnu uporabu jezika, istodobno razvijajući odgovornost i timski rad (Adilah, 2023; Guo i sur., 2020; Novalia i sur., 2025).

Brojna empirijska istraživanja pokazuju da projektno učenje može poduprijeti razvoj govornih vještina i karaktera ako su aktivnosti osmišljene tako da zahtijevaju kontinuiranu interakciju i zajedničku odgovornost. Međutim, učinkovitost PjBL-a u velikoj mjeri ovisi o nastavnim strategijama koje su integrirane u projektni ciklus. Zbog toga su potrebne dodatne strategije koje mogu osigurati održivu i refleksivnu govornu praksu.

Igranje uloga jedna je od strategija koja se često primjenjuje u projektnom učenju jer uključuje studente u komunikacijske situacije koje zahtijevaju spontani dijalog, emocionalnu uključenost i zauzimanje različitih perspektiva. Simulacijom stvarnih interakcija igranje uloga dokazano poboljšava govornu praksu i angažiranost studenata

(Löfstrand i Zakrisson, 2025). Međutim, prethodna istraživanja pokazuju da je primjena igranja uloga u nastavi često ograničena nedostatkom sustavne povratne informacije, refleksije i mogućnosti unaprjeđenja govorne izvedbe. Takva ograničenja mogu usporiti održivi razvoj govornih vještina i dublje oblikovanje karaktera (Goram i Subekti, 2022). Stoga su potrebni mehanizmi koji omogućuju kontinuirano vrednovanje i poboljšavanje izvedbe.

Istodobno, integracija digitalnih medija sve snažnije utječe na iskustvo učenja, komunikacijski prostor i oblikovanje studentskoga identiteta (Engeness i Gamlem, 2025; Reyna i Meier, 2018). Kao participativna digitalna platforma, YouTube nudi brojne pedagoške mogućnosti relevantne za EFL nastavu govora, uključujući višestruko izvođenje zadataka, povratne informacije vršnjaka i šire publike te dokumentiranje napretka u učenju (Colasante, 2022; Xiaodi i sur., 2024). Funkcionalnosti komentiranja i dijeljenja sadržaja omogućuju suradničku izgradnju znanja i podržavaju ciklus izvedbe, refleksije i unaprjeđenja (Dubovi, 2020). Takve značajke pokazuju da YouTube može djelovati kao pedagoški prostor koji podržava govornu praksu izvan vremenskih i prostornih ograničenja učionice.

Iako se istraživanja projektnoga učenja, igranja uloga i digitalnih medija u EFL kontekstu kontinuirano razvijaju, većina studija i dalje promatra ova tri elementa odvojeno. Istraživanja koja ih sustavno integriraju unutar jedinstvenoga okvira učenja, posebno povezujući govornu izvedbu s razvojem karaktera, još su uvijek ograničena. Osim toga, postojeći nalazi često su fragmentirani i ne pružaju dovoljno jasno objašnjenje kako procesi suradničke digitalne produkcije mogu razvijati samopouzdanje i sposobnost suradnje u okviru strukturiranih ciklusa izvedbe, povratne informacije i refleksije.

Ovo istraživanje osmišljava, razvija i evaluira medij projektnoga učenja temeljen na YouTubeu primjenom modela ADDIE. Novost istraživanja leži u integraciji projektnoga učenja, strukturiranoga igranja uloga i digitalne refleksije unutar sustavno osmišljenoga nastavnog okvira kako bi se objasnilo na koji način ponavljajući ciklus izvedbe, povratne informacije i refleksije može unaprijediti tečnost govora studenata EFL-a, istodobno jačajući njihovo samopouzdanje i suradnju. Nadalje, istraživanje nudi praktičan model učenja koji nastavnici mogu jednostavno primijeniti koristeći dostupnu tehnologiju. Time istraživanje pruža empirijski i pedagoški doprinos razvoju digitalno podržane i na karakter usmjerene EFL nastave u visokome obrazovanju.

Metodologija

Dizajn istraživanja i okvir učenja

U ovome istraživanju koristi se pristup istraživanja i razvoja (Design and Development Research) s modelom ADDIE kao okvirom za dizajn učenja u svrhu razvoja i evaluacije medija za učenje govora engleskoga jezika temeljenoga na platformi YouTube (Branch, 2009; Nadiyah i Faaizah, 2015). Model ADDIE primijenjen je kako bi se osigurala integracija između ciljeva učenja, pedagoških aktivnosti i procesa evaluacije. Razvoj i vrednovanje nastavnih medija u ovome istraživanju vođeni su ADDIE modelom prikazanim na Slici 1.

Slika 1

ADDIE okvir operacionaliziran je u pet faza: analiza, dizajn, razvoj, implementacija i evaluacija. U fazi analize identificirane su govorne vještine i karakterne osobine koje je potrebno razvijati kod studenata. Faze dizajna i razvoja integrirale su projektno učenje (Project-Based Learning), strukturirano igranje uloga i YouTube kao medijacijski prostor za učenje koji podržava ciklus izvedbe, povratne informacije i refleksije. Razvijeni medij implementiran je u eksperimentalnoj skupini, dok je kontrolna skupina pohađala konvencionalnu nastavu govora engleskoga jezika. Kako bi se procijenila učinkovitost razvijenoga medija, istraživanje je koristilo kvazieksperimentalni nacrt s predtestom i posttestom koji je uključivao eksperimentalnu i kontrolnu skupinu (Creswell i Creswell, 2018). Kvalitativni podatci korišteni su kao dopuna kvantitativnim rezultatima radi dubljega razumijevanja iskustava studenata tijekom provedbe digitalnoga projektnog učenja (Creswell i Creswell, 2018).

Sudionici

Sudionici istraživanja bili su 60 studenata Studijskog programa za obrazovanje nastavnika engleskoga jezika na Sveučilištu Negeri Medan (Universitas Negeri Medan), u dobi od 18 do 21 godine. Sudionici su ravnomjerno raspoređeni u eksperimentalnu skupinu (n = 30) i kontrolnu skupinu (n = 30). Etička načela istraživanja osigurana su pribavljanjem informiranoga pristanka sudionika, zaštitom povjerljivosti podataka te dobrovoljnim sudjelovanjem u istraživanju.

Instrumenti i postupci prikupljanja podataka

Govorne vještine studenata procijenjene su analitičkom rubrikom koja uključuje tečnost govora, jezičnu točnost, izgovor i sposobnost interakcije (Brown, 2004). Primjena ove rubrike omogućila je dosljednost procjene te pružanje dijagnostičke povratne informacije (Schreiber i sur., 2012), a prikladna je i za kontekst tehnološki podržanoga vrednovanja govornih kompetencija (Youn, 2023).

Karakterne osobine, uključujući samopouzdanje, suradnju i kreativnost, mjerene su upitnikom Likertova tipa prilagođenim okviru globalnih kompetencija. Testovi govornih vještina i upitnici za procjenu razvoja karaktera provedeni su u objema skupinama tijekom predtesta i posttesta. Kvalitativni podatci prikupljeni su putem studentskih refleksija i obrazovnih artefakata nastalih tijekom provedbe projektnoga učenja temeljenoga na YouTubeu.

Analiza podataka

Kvantitativni podatci analizirani su primjenom deskriptivne i inferencijalne statistike. Deskriptivna statistika korištena je za prikaz srednjih vrijednosti (M) i standardnih devijacija (SD) za varijable govornih vještina i razvoja karaktera u eksperimentalnoj i kontrolnoj skupini tijekom predtesta i posttesta (Field, 2013). Prije provedbe inferencijalne analize provedene su provjere statističkih pretpostavki.

Normalnost distribucije podataka ispitana je Kolmogorov–Smirnovljevim i Shapiro–Wilkovim testom, dok je homogenost varijanci procijenjena Leveneovim testom. U slučajevima kada pretpostavka homogenosti nije bila zadovoljena, korišten je pristup *equal variances not assumed*. Unatoč manjim odstupanjima od normalnosti, primijenjeni su parametrijski testovi jer se t-test smatra robusnim pri umjerenim odstupanjima od normalnosti uz odgovarajuću veličinu uzorka (Razali i Wah, 2011).

Inferencijalna analiza provedena je pomoću:

- t-testa za zavisne uzorke (paired samples t-test) radi ispitivanja promjena između predtesta i posttesta unutar svake skupine
- t-testa za nezavisne uzorke (independent samples t-test) radi usporedbe rezultata između eksperimentalne i kontrolne skupine (Kim, 2015).

Kako bi se dopunila interpretacija statističke značajnosti, izračunate su veličine učinka (Cohenov d). Za analize unutar skupina korištena je formula:

$$d = \frac{t}{\sqrt{n}}$$

dok su za usporedbe između skupina veličine učinka izračunate na temelju razlike srednjih vrijednosti. Interpretacija veličine učinka temeljila se na kriterijima koje je predložio Cohen (1988):

- mala veličina učinka = 0,20
- srednja veličina učinka = 0,50
- velika veličina učinka = 0,80

Izvještavanje o veličinama učinka preporučuje se kako bi se procijenila praktična važnost rezultata uz statističku značajnost (Lakens, 2013). Sve statističke analize provedene su uz razinu značajnosti od $\alpha = 0,05$. Kvalitativni podatci analizirani su korištenjem interaktivnoga modela Milesa, Hubermana i Saldañe (2014), koji uključuje faze kondenzacije podataka, prikaza podataka i izvođenja zaključaka. Cilj analize bio je identificirati teme povezane sa samopouzdanjem, suradnjom i kreativnošću tijekom provedbe projektnoga učenja temeljenoga na YouTubeu.

Rezultati

*Rezultati razvoja proizvoda (Rezultat istraživanja i razvoja)***

Nastavni mediji razvijeni su u pet faza ADDIE modela, koje uključuju analizu potreba studenata, oblikovanje scenarija za igranje uloga i rubrika za vrednovanje, izradu zadataka temeljenih na platformi YouTube koje su validirali stručnjaci, provedbu osmotjedne intervencije te formativnu i sumativnu evaluaciju ishoda učenja povezanih s govornim vještinama i razvojem karaktera. U fazi analize provedena je analiza učenika kako bi se identificirale karakteristike studenata generacije Z, njihove razine jezične kompetencije te njihove preferencije u korištenju digitalnih medija tijekom učenja. Analiza sadržaja provedena je radi utvrđivanja ciljanih sastavnica govornih vještina (tečnost govora, izgovor i vokabular), kao i aspekata razvoja karaktera (suradnja, kreativnost i samopouzdanje).

U fazi oblikovanja izrađeni su scenariji za igranje uloga temeljeni na autentičnim situacijama, kao i plan integracije platforme YouTube za snimanje, učitavanje i refleksiju o govornoj izvedbi studenata. Rubrika za vrednovanje osmišljena je za procjenu govornih vještina i postignuća u razvoju karaktera. U fazi razvoja izrađeni su primjerni videozapisi i smjernice za korištenje platforme YouTube, koji su zatim testirani u ograničenom opsegu. Slika 2 prikazuje početni izgled videovodiča pod nazivom *Building Confidence Through Role Play*, koji je korišten tijekom procesa učenja.

Slika 2

Stručna validacija

Nastavni medij validirala su dva stručnjaka, odnosno stručnjak za obrazovne medije i stručnjak za sadržaj. Procjenjivani aspekti uključivali su relevantnost nastavnoga sadržaja, kvalitetu vizualnih i audioelemenata, usklađenost s karakteristikama studenata generacije Z, jednostavnost korištenja te pedagoški potencijal medija. Rezultati validacije pokazali su da je medij dobio dobre do vrlo dobre ocjene u svim procjenjivanim aspektima. Prijedlozi za unapjređenje uglavnom su se odnosili na poboljšanje prijelaza između videosekvenci, dodavanje većega broja komunikacijskih scenarija te jasnije upute za korištenje funkcionalnosti platforme YouTube. Sažetak rezultata stručne validacije prikazan je u Tablici 1.

Tablica 1
Rezultati stručne validacije

Procjenjivani aspekt	V1 (stručnjak za obrazovne medije)	V2 (stručnjak za sadržaj)	Prijedlozi
Relevantnost sadržaja	Dobro: Sadržaj je usklađen s ciljevima učenja.	Izvrsno: Scenariji odražavaju stvarne komunikacijske potrebe studenata.	Dodati raznovrsnije primjere kako bi se proširio raspon komunikacijskih scenarija.
Kvaliteta vizualnih i audioelemenata	Izvrsno: Vizualni i audioelementi jasni su i privlačni.	Dobro: Zvuk je jasan, ali prijelaze između scena potrebno je poboljšati.	Učiniti prijelaze između scena glađima kako bi tijek videozapisa bio prirodniji.
Prikladnost za studente generacije Z	Izvrsno: Digitalno utemeljen medij usklađen je sa stilovima učenja Generacije Z.	Izvrsno: Medij je zanimljiv i usklađen s preferencijama studenata.	Dodati animacijske elemente kako bi se povećala vizualna privlačnost i angažiranost.
Jednostavnost pristupa i korištenja	Dobro: Platformi YouTube lako je pristupiti.	Dobro: Studenti mogu lako pristupiti sadržaju putem podijeljenih poveznica.	Pružiti jasnije upute za korištenje značajki platforme YouTube, poput komentara i anketa.
Potencijal za unaprjeđenje govornih vještina	Dobro: Igranje uloga potiče aktivnu govornu praksu.	Izvrsno: Medij motivira studente na komunikaciju na engleskome jeziku.	Dodati scenarije s izravnom interakcijom među studentima radi dodatnoga jačanja dijaloških vještina.

Deskriptivna analiza

Deskriptivna analiza provedena je kako bi se pružio pregled promjena u govornim vještinama i rezultatima razvoja karaktera prije i nakon provedene intervencije. Deskriptivni statistički pokazatelji za govorne vještine i razvoj karaktera prikazani su u Tablici 2.

Tablica 2

Na temelju rezultata prikazanih u Tablici 2, eksperimentalna skupina pokazala je veći napredak u usporedbi s kontrolnom skupinom. U području govornih vještina eksperimentalna skupina napredovala je s M = 62,10 (SD = 3,87) na M = 80,04 (SD = 3,22), dok je kontrolna skupina napredovala s M = 62,20 (SD = 3,95) na M = 66,87 (SD = 3,95). U području razvoja karaktera eksperimentalna skupina napredovala je s M = 3,27 (SD = 0,63) na M = 4,56 (SD = 0,49), dok je kontrolna skupina ostvarila manji napredak, s M = 3,39 (SD = 0,77) na M = 3,70 (SD = 0,73). Ovi rezultati pokazuju da je napredak u eksperimentalnoj skupini bio izraženiji nego u kontrolnoj skupini u obje varijable.

Testiranje pretpostavki

Iako deskriptivna analiza pruža početni pregled promjena rezultata, provedena su dodatna testiranja kako bi se utvrdilo zadovoljavaju li podatci pretpostavke potrebne za primjenu parametrijskih statističkih analiza. Jedna od ključnih pretpostavki jest normalna distribucija podatak, stoga su testovi normalnosti provedeni korištenjem Kolmogorov–Smirnovljeva i Shapiro–Wilkova testa. Rezultati su prikazani u Tablici 3.

Tablica 3

Rezultati pokazuju da su sve varijable govornih vještina u objema skupinama bile normalno distribuirane ($p > ,05$). U području razvoja karaktera eksperimentalna je skupina zadovoljila pretpostavku normalnosti, dok je kontrolna skupina pokazala odstupanja od normalnosti i u predtestu i u posttestu ($p < ,05$). Međutim, s obzirom na odgovarajuću veličinu uzorka (n = 30 po skupini), parametrijski testovi su zadržani jer se t-testovi smatraju robusnima na umjerena odstupanja od normalnosti. Unatoč manjim odstupanjima od normalnosti u kontrolnoj skupini, parametrijski testovi su primijenjeni zbog odgovarajuće veličine uzorka i robusnosti t-testa.

Test homogenosti proveden je korištenjem Leveneova testa. Test homogenosti varijanci proveden je kako bi se osigurala jednakost varijanci između eksperimentalne i kontrolne skupine. Rezultati Leveneova testa prikazani su u Tablici 4.

Tablica 4

Rezultati pokazuju da su podatci o govornim vještinama zadovoljili pretpostavku homogenosti varijanci i u predtestu ($p = ,92$) i u posttestu ($p = ,21$). U području razvoja karaktera podatci predtesta također su bili homogeni ($p = ,23$), dok su podatci posttesta

pokazali odstupanje od pretpostavke homogenosti varijanci (p = ,01). Stoga je daljnja analiza za ovu varijablu interpretirana primjenom pristupa *equal variances not assumed*.

Inferencijalna analiza

Nakon testiranja pretpostavki provedena je inferencijalna analiza kako bi se procijenilo jesu li uočene razlike između skupina statistički značajne. Rezultati t-testa za nezavisne uzorke, kojim su uspoređene eksperimentalna i kontrolna skupina u pogledu govornih vještina, prikazani su u Tablici 5.

Tablica 5

Na temelju Tablice 5, rezultati predtesta za govorne vještine nisu pokazali statistički značajnu razliku između eksperimentalne i kontrolne skupine, t(58) = 0,099, p = 0,921. To pokazuje da su obje skupine imale usporedive početne sposobnosti prije provedbe intervencije. Međutim, u posttestu je utvrđena statistički značajna razlika između dviju skupina, t(58) = -14,175, p < 0,001, uz 95 % interval pouzdanosti od -15,04 do -11,32. Ovaj rezultat pokazuje da je eksperimentalna skupina nakon intervencije postigla više rezultate u govornim vještinama u usporedbi s kontrolnom skupinom.

U pogledu razvoja karaktera, rezultati predtesta također nisu pokazali statistički značajnu razliku između dviju skupina, t(58) = 0,680, p = 0,499, što upućuje na to da su početni uvjeti dviju skupina bili relativno izjednačeni. Suprotno tome, u posttestu je utvrđena statistički značajna razlika između eksperimentalne i kontrolne skupine, t(50,71) = -5,412, p < 0,001, uz 95 % interval pouzdanosti od -1,19 do -0,54. Budući da pretpostavka homogenosti varijanci nije bila zadovoljena, ovi su rezultati interpretirani primjenom pristupa *equal variances not assumed*. Sveukupno, ovi nalazi pokazuju da je intervencija bila povezana s poboljšanjem govornih vještina i razvoja karaktera, pri čemu je eksperimentalna skupina u posttestu postigla bolje rezultate od kontrolne skupine.

Kako bi se analizirale promjene unutar svake skupine, provedeni su t-testovi za zavisne uzorke na rezultatima predtesta i posttesta za govorne vještine i razvoj karaktera. Rezultati su prikazani u Tablici 6.

Tablica 6

U eksperimentalnoj skupini rezultati su pokazali značajno poboljšanje govornih vještina, t(29) = -111,675, p < 0,001, uz 95 % interval pouzdanosti od -18,27 do -17,62. Nadalje, razvoj karaktera također je pokazao značajno poboljšanje, t(29) = -44,000, p < 0,001, uz 95 % interval pouzdanosti od -1,35 do -1,23. U kontrolnoj skupini govorne vještine također su pokazale značajno poboljšanje, t(29) = -3,848, p < 0,001, uz 95 % interval pouzdanosti od -7,30 do -2,23. Međutim, opseg toga poboljšanja bio je manji nego u eksperimentalnoj skupini. Razvoj karaktera u kontrolnoj skupini također je pokazao značajno poboljšanje, t(29) = -48,025, p < 0,001, uz 95 % interval pouzdanosti od -0,32 do -0,29. Sveukupno, iako su obje skupine ostvarile poboljšanje, eksperimentalna skupina pokazala je znatno veći napredak, osobito u govornim vještinama, što upućuje na učinkovitost intervencije.

Tablica 7

Kako bi se pružila sveobuhvatnija slika o veličini učinka intervencije, veličine učinka izračunate su korištenjem Cohenova d za analize unutar skupina i između skupina. Rezultati su prikazani u Tablici 7.

U analizi unutar skupina eksperimentalna je skupina pokazala vrlo velike veličine učinka za govorne vještine (d = 20,39) i razvoj karaktera (d = 8,03), što upućuje na značajno poboljšanje nakon intervencije. U kontrolnoj skupini govorne vještine pokazale su srednju veličinu učinka (d = 0,70), dok je razvoj karaktera pokazao vrlo veliku veličinu učinka (d = 8,77). U analizi između skupina, na temelju rezultata posttesta, dobivena je vrlo velika veličina učinka za govorne vještine (d = 3,60) i velika veličina učinka za razvoj karaktera (d = 1,40). To pokazuje da je eksperimentalna skupina nakon intervencije ostvarila znatnu prednost u odnosu na kontrolnu skupinu. Ovi rezultati upućuju na to da intervencija nije dovela samo do značajnoga poboljšanja u eksperimentalnoj skupini, nego i do smislenih razlika u usporedbi s kontrolnom skupinom. Međutim, treba napomenuti da neuobičajeno velike veličine učinka zabilježene u ovome istraživanju mogu biti povezane s niskom varijabilnošću rezultata i vrlo dosljednim obrascima izvedbe unutar skupina, pa ih stoga treba interpretirati s oprezom.

Percepcija studenata o mediju za igranje uloga temeljenom na platformi YouTube

Rezultati analize percepcija studenata o mediju za igranje uloga temeljenom na platformi YouTube prikazani su na Slici 5. Približno 80 % studenata iskazalo je pozitivne percepcije u vezi sa suradnjom, 65 % u vezi sa samopouzdanjem, a 85 % u vezi s angažiranošću u učenju.

Slika 5

Kvalitativni podatci pokazuju da studenti aktivnosti igranja uloga u skupinama doživljavaju kao poticajne za suradničku interakciju. Neki su studenti također izvijestili o većoj ugodnosti pri izražavanju vlastitih ideja nakon višekratnoga snimanja videozapisa. Oko 80 % studenata izjavilo je da je medij za igranje uloga unaprijedio njihove vještine suradnje. Mnogi su smatrali da im je rad u skupini pomogao u poboljšanju govornih vještina, što ilustrira komentar jednoga studenta:

> „*Pomagali smo jedni drugima usavršiti dijalog i zajedno vježbali, pa je učenje bilo zabavnije.*"

Ova interaktivna aktivnost temeljena na skupnom radu stvorila je suradničko okružje koje je poticalo međusobnu podršku i učinkovitu komunikaciju.

U pogledu samopouzdanja, oko 65 % studenata izjavilo je da su postali sigurniji u izražavanju vlastitih ideja. Mogućnost ponovnoga snimanja videozapisa pružila je prostor za višekratnu vježbu, čime se smanjila razina anksioznosti. Jedan je student izjavio:

„Snimanje samoga sebe učinilo me samopouzdanijim nakon nekoliko pokušaja."

Polustrukturirano okružje za učenje s niskom razinom pritiska omogućilo je studentima vježbanje bez straha od prosudbe, pomažući im da prevladaju komunikacijske prepreke. Najveći udio pozitivnih odgovora, oko 85 %, zabilježen je u području angažiranosti u učenju. Kreativna i studentima poznata platforma YouTube povećala je njihov interes za aktivnosti učenja, što potvrđuje komentar jednoga sudionika:

„Osjećao sam se kao da snimam pravi film; YouTube čini učenje zabavnijim."

Integracija digitalnih medija i interaktivnih zadataka učinila je proces učenja dinamičnijim i ugodnijim te je pridonijela održavanju studentske motivacije. S druge strane, aspekt refleksije dobio je najnižu razinu pozitivnih procjena, svega 50 %. Neki su studenti imali poteškoća sa samovrednovanjem, što ilustrira izjava jednoga sudionika:

„Teško mi je sam sebe procijeniti jer ne znam u čemu sam dobar, a u čemu nisam."

Ovaj nalaz upućuje na potrebu za dodatnom podrškom, poput smjernica za refleksiju ili primjera samovrednovanja, kako bi studenti mogli učinkovitije koristiti refleksivne aktivnosti za razvoj svojih govornih vještina.

Diskusija

Rezultati ovoga istraživanja pokazuju da je primjena modela igranja uloga temeljenoga na projektima, integriranoga s platformom YouTube, povezana sa značajnim poboljšanjima govornih vještina i razvoja karaktera studenata. Ovi su nalazi u skladu s prethodnim istraživanjima koja pokazuju da digitalna okružja za učenje mogu unaprijediti ishode učenja jezika pružanjem autentičnih i interaktivnih iskustava učenja (Akay, 2018). Rezultati nezavisnih t-testova i t-testova za zavisne uzorke pokazuju da je eksperimentalna skupina nakon intervencije postigla više rezultate od kontrolne skupine, uz veliki učinak, osobito u području govornih vještina. To ukazuje da integracija aktivnosti igranja uloga temeljenih na videu pruža smisleno i učinkovito iskustvo učenja u kontekstu učenja engleskoga kao stranoga jezika (EFL).

Poboljšanje govornih vještina može se objasniti multimodalnim digitalnim okružjem za učenje koje studentima omogućuje aktivno sudjelovanje u uporabi jezika u autentičnoj i kontekstualnoj komunikaciji. Mogućnost višestrukoga vježbanja, snimanja i evaluacije vlastitoga nastupa doprinosi povećanju tečnosti i samopouzdanja. Ovi su nalazi u skladu s prethodnim istraživanjima koja sugeriraju da multimedijska okružja mogu unaprijediti iskustvo učenja pružanjem strukturiranoga i autentičnoga komunikacijskog konteksta (BavaHarji i sur., 2014). Nadalje, fleksibilnost zadataka temeljenih na videu omogućuje studentima učenje bez ograničenja vremena i mjesta, što predstavlja prednost u odnosu na konvencionalno EFL poučavanje.

Rezultati ovoga istraživanja također su u skladu s karakteristikama učenika generacije Z, koji preferiraju vizualna, interaktivna i participativna okružja za učenje (Alruthaya i sur., 2021). Integracija YouTubea kao platforme za učenje odgovara tim preferencijama te povećava angažiranost i sudjelovanje studenata. Značajna razlika

između eksperimentalne i kontrolne skupine ukazuje da uporaba medija usklađenih s karakteristikama studenata generacije Z pozitivno doprinosi obrazovnim ishodima i uključenosti studenata.

U pogledu razvoja karaktera, ovo istraživanje pokazalo je da je eksperimentalna skupina ostvarila veća poboljšanja u suradnji, kreativnosti i samopouzdanju u usporedbi s kontrolnom skupinom. Iako su obje skupine pokazale statistički značajna poboljšanja, opseg promjena bio je znatno veći u eksperimentalnoj skupini. To ukazuje da aktivnosti igranja uloga kombinirane s projektnim učenjem u digitalnom okružju mogu stvoriti značajne društvene interakcije i podržati afektivni razvoj studenata. Ovi su nalazi u skladu s načelima projektnoga učenja (Project-Based Learning) i iskustvenoga učenja, koja naglašavaju važnost suradnje i razvoja interpersonalnih vještina više razine (Bell, 2010; Igel i Urquhart, 2012). Tijekom aktivnosti digitalne produkcije i igranja uloga studenti sudjeluju u izradi dijaloga, pregovaranju o ciljevima i koordinaciji unutar skupine. Posljedično, ovo istraživanje pokazuje da digitalno projektno učenje ima potencijal potaknuti razvoj karaktera u skladu sa zahtjevima obrazovanja 21. stoljeća. Ovaj zaključak dodatno podupiru istraživanja koja ističu da digitalna i mrežna okružja za učenje promiču suradnju, refleksivno mišljenje i razvoj kompetencija 21 stoljeća (Arslan, 2023).

Uporaba videa kao nastavnoga medija omogućuje studentima refleksiju o vlastitom radu putem ponovnoga pregledavanja snimki. To podržava razvoj metakognitivne svijesti u samostalnom učenju. Međutim, na temelju odgovora studenata, nisu svi studenti sposobni provoditi dubinsku refleksiju. Ovaj je nalaz u skladu s prethodnim istraživanjima koja navode da refleksivna praksa zahtijeva odgovarajuće usmjeravanje i podršku kako bi se optimalno razvila (Casey i Jones, 2011). Stoga uloga nastavnika ostaje ključna u facilitiranju procesa refleksije u digitalno utemeljenom učenju.

Rezultati ovoga istraživanja također naglašavaju važnost kvalitetnoga instruktivnog dizajna u multimodalnim digitalnim okružjima. Studenti su procijenili da su vizualna jasnoća, jednostavnost korištenja i sustavna struktura nastave doprinijeli pozitivnom iskustvu učenja. Primjena modela ADDIE u ovome istraživanju pružila je sustavan okvir za oblikovanje obrazovnih ciljeva, pedagoških aktivnosti i evaluacije (Branch, 2009). To sugerira da učinkovitost primjene tehnologije u učenju jezika ne ovisi samo o korištenom mediju, već i o kvaliteti implementiranoga instruktivnog dizajna. Ovo istraživanje pokazuje da je struktura nastavnoga dizajna ključan čimbenik za učinkovito korištenje tehnologije u jezičnom obrazovanju.

Iako rezultati ovoga istraživanja pokazuju pozitivne nalaze, potrebno je uzeti u obzir nekoliko ograničenja. Prvo, relativno ograničena veličina uzorka i njegovo podrijetlo iz jednoga institucionalnog konteksta mogu utjecati na mogućnost generalizacije rezultata. Drugo, istraživanje se usredotočilo na kratkoročne učinke, pa dugoročni učinci intervencije još uvijek ne mogu biti sa sigurnošću utvrđeni. Buduća istraživanja trebala bi ispitati održivost ishoda učenja, primijeniti model u raznolikijim kontekstima te uključiti dodatne kontrolne varijable radi jačanja uzročne interpretacije rezultata.

Ovo istraživanje pokazuje da učenje igranjem uloga temeljeno na YouTubeu ima značajan potencijal za poboljšanje govornih vještina i razvoja karaktera studenata u EFL kontekstu. Ovi nalazi pružaju empirijsku potporu integraciji digitalnih, projektno utemeljenih i multimodalnih pristupa učenju u visokome obrazovanju.

Zaključak

Ovo istraživanje pokazuje da je primjena aktivnosti igranja uloga temeljenih na platformi YouTube povezana sa značajnim poboljšanjima govornih vještina i razvoja karaktera studenata u kontekstu učenja engleskoga kao stranoga jezika (EFL). Eksperimentalna skupina ostvarila je bolje rezultate od kontrolne skupine, uz veliki učinak, osobito u području govornih vještina, što ukazuje na učinkovitost i pouzdanost provedene intervencije. Ovi nalazi podupiru konstruktivističke i iskustvene pristupe učenju te potvrđuju da integracija digitalnih medija usklađenih s karakteristikama studenata generacije Z može povećati angažiranost i učinkovitost učenja. S praktičnoga stajališta, uporaba YouTubea u aktivnostima igranja uloga može predstavljati učinkovitu alternativnu strategiju poučavanja, osobito kada je podržana sustavno osmišljenim nastavnim dizajnom i odgovarajućim vođenjem refleksivnoga procesa. Međutim, ograničenja ovoga istraživanja odnose se na relativno mali uzorak ispitanika i usmjerenost na kratkoročne učinke intervencije. Stoga se preporučuju daljnja istraživanja kako bi se ispitala održivost postignutih rezultata te proširio kontekst primjene modela radi jačanja mogućnosti generalizacije nalaza. Ovo istraživanje pruža empirijske dokaze da projektno učenje podržano digitalnim medijima ima značajan potencijal za unaprjeđenje kvalitete jezičnoga obrazovanja i razvoja karaktera studenata.