Research Article

Analysis of an AI-integrated student-centered promotional video for educational institutions: A qualitative descriptive study

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Abstract

This study examines the creation and application of an institutional promotional video integrating student-centered scriptwriting and AI voice generation. This study aims to evaluate the effectiveness, strengths, and weaknesses of the outcome product from pedagogical and technological perspectives. The study uses a qualitative descriptive design to analyze the product along four dimensions based on four key aspects; content quality, narration, technical quality, and promotional effectiveness. The data were collected through documentation, reflective observation, and review of project records. Findings indicate that the integration of student-centered learning in script development encouraged creativity, collaboration, and ownership, while the use of AI voice technology enhanced cost efficiency and consistency in narration. However, limitations were detected in the emotional expressiveness of the AI- generated voice and the briefness of the video, which reduced narrative depth. The study suggests that integrating student-centered methods using AI techniques can provide a pedagogically significant and technically interesting model for institutional promotion. Suggested recommendations include the use of hybrid forms, continuing students' participation in post-production, and carrying out studies of audience perception in future research.

Keywords: AI voice generator; student-centered learning; qualitative descriptive study; institutional promotion

1. Introduction

The increasing competition among educational institutions has encouraged innovation in promotional and communication strategies. In the digital era, promotional videos have emerged as powerful tools for enhancing institutional branding, allowing universities and colleges to visually communicate their identity, values, and academic excellence. According to Kotler and Keller (2016), effective institutional promotion not only conveys factual information but also builds emotional engagement and trust among stakeholders.

Technological advances, particularly in Artificial Intelligence (AI), have opened new opportunities for creating such media. AI voice generators—a form of text-to-speech technology—enable producers to generate natural, fluent, and professional-quality narrations without human voice actors. Previous studies (Zhang & Yang, 2022; Lee, Park, & Zhao, 2023) suggest that AI narration offers cost efficiency and linguistic versatility but often lacks the expressiveness of human voices (Gao & Wu, 2021; Chen & Luo, 2023).

On the other hand, as far as pedagogical sense is concerned, student-centered learning (SCL) has also been well-proven effective method of supporting creativity and collaboration as well as autonomy (Brown, 2008; Rahman & Park, 2022). When students take active roles in designing real-world projects, such as producing institutional media, they develop both disciplinary knowledge and transferable digital skills (Anderson, 2016). Supriyadi et al. (2023) in their research on digital storytelling, found that using digital narrative-based projects has great potential to enhance student engagement in the context of higher education. These findings support the importance of student-led multimedia projects, such as creating of promotional videos, as an effective learning method.

Despite increasing research on AI and media innovation, few studies have explored how *AI narration* and *student-centered scriptwriting* can be combined to develop institutional promotional materials. This study addresses that gap by evaluating a promotional video developed by students of *Politeknik Negeri Sriwijaya*, integrating SCL principles and AI voice synthesis. The study aims to describe the product development process and evaluate its quality across pedagogical and technological dimensions.

2. Methods
2.1 Research Design
This study employed a qualitative descriptive research design, which aims to provide a rich, contextualized description of a phenomenon (Creswell & Poth, 2018). Unlike experimental or statistical approaches, qualitative description emphasizes naturalistic observation and interpretation of real-world outcomes (Sandelowski, 2000). The design was chosen because it allows flexible and detailed analysis of the final video product as a pedagogical and technological artifact.

2.2 Object of the Study
The object of analysis was a promotional video produced collaboratively by students and lecturers at *Politeknik Negeri Sriwijaya*. The video was designed to promote the institution's identity, programs, and learning environment. Students developed the script using a student-centered approach, and narration was produced with an AI voice generator configured for clarity, standard pacing, and neutral tone.

2.3 Data Collection
The data in this study were collected through three complementary qualitative techniques: product documentation, reflective observation, and project record review. This combination was intended to capture both the tangible characteristics of the video product and the contextual process of its production. Data collection took place throughout the pre-production, production, and post-production stages of the project as follows:

1. Product Documentation

The primary data source consisted of the final promotional video produced collaboratively by students and lecturers at *Politeknik Negeri Sriwijaya*. Supporting documents, including the script, storyboard, and production notes, were also analyzed to understand the creative process and decision-making involved. The script provided insight into language use, narrative structure, and persuasive strategies, while the storyboard illustrated how textual ideas were translated into visual representation. The final video file was used as the core artifact for evaluating content, narration, technical, and promotional aspects.

2. Reflective Observation

During the production phase, the writers maintained a reflective journal documenting observations of student collaboration, creative negotiation, and technological experimentation with AI voice tools.

These observations focused on the pedagogical dynamics of the project—how students engaged in teamwork, responded to feedback, and adapted to technical challenges. The reflective notes also recorded the writers' impressions of how AI integration influenced students' perception of creativity, efficiency, and authorship.

3. Project Records and Contextual Documents

Additional data were gathered from institutional documents such as project briefs, meeting notes, and communication logs. These records described the goals, constraints, and intended audience of the promotional video. Technical records, including configuration settings of the AI voice generator (e.g., voice type, speed, tone adjustments), were included to support transparency in evaluating technological decisions. All documents were reviewed with institutional permission, and any student identifiers appearing in notes or transcripts were anonymized to ensure confidentiality.

Together, these three sources created a multi-perspective dataset that supported triangulation and strengthened the trustworthiness of findings. The documentation represented the product outcome, observation captured the learning process, and project records contextualized the institutional objectives of the innovation.

2.4 Data Analysis

Data analysis followed a reflexive thematic approach adapted from Braun and Clarke (2019), integrated with structured content analysis for the video artifact. The goal was to obtain a comprehensive, descriptive understanding of the product's quality across four main evaluation aspects: content quality, narration, technical quality, and promotional effectiveness. The analysis proceeded through several systematic stages:

1. Familiarization

All data—including the final video, scripts, storyboards, reflective notes, and production records—were reviewed multiple times to gain an in-depth understanding of the content. Initial impressions were documented, focusing on message clarity, visual coherence, and narrative flow.

2. Coding and Categorization

A preliminary codebook was developed based on both deductive and inductive principles. Deductively, codes were drawn from the four evaluation aspects, while inductive coding allowed new patterns to emerge from the data. The units of analysis included (a) narrative segments in the video, (b) visual scenes, and (c) excerpts from the script or observation notes. Each segment was coded according to relevant indicators, such as message relevance, narration clarity, synchronization, or emotional engagement.

3. Theme Development

Coded data were then organized into broader themes representing the strengths and weaknesses of the product. For instance, codes such as *message clarity* and *authentic representation* were grouped into the theme "Authentic and Persuasive Messaging," while *monotone AI voice* and *limited expressiveness* formed the theme "Technical Efficiency with Reduced Emotion." These themes were refined iteratively to ensure coherence and consistency across the dataset.

4. Triangulation of Data Sources

Triangulation was applied by comparing findings across different sources. For example, the writers cross-checked whether the persuasive intent found in the script aligned with the visual presentation in the final video, or whether student reflections matched the actual production outcomes. This process reduced interpretive bias and enhanced credibility.

5. Trustworthiness and Reflexivity

To ensure the rigor of the analysis, several qualitative validation strategies were implemented:

- Credibility was strengthened through prolonged engagement with the data and repeated review of the video artifact.

- Dependability was supported by maintaining an audit trail of analytic memos, coding revisions, and documentation versions.
- Conformability was established by explicitly linking interpretations to data excerpts and timestamps.
- Reflexivity was maintained through reflective journaling, where the writers critically examined personal involvement as both facilitator and evaluator.

6. Interpretation and Synthesis

Finally, themes were synthesized into an interpretive narrative that described how the integration of *student-centered learning* and *AI voice generation* influenced the video's overall quality and educational value. The analysis was structured to highlight both pedagogical and technological implications, aligning the findings with current trends in educational media innovation.

3. Results

The results of this study are presented based on four main evaluation aspects: content quality, narration, technical quality, and promotional effectiveness. The analysis integrates data obtained from the video product, scripts, and reflective observation notes, following the thematic procedures described earlier. Each aspect is discussed in relation to relevant literature to highlight the pedagogical and technological implications of the findings.

3.1 Content Quality

The first aspect examined was content quality, which focused on the relevance, clarity, and authenticity of the message delivered through the promotional video. The analysis revealed that the student-centered scriptwriting process played a crucial role in shaping the content's authenticity and persuasiveness. The students collaboratively developed the narrative, selecting key messages that represented the institution's educational excellence, innovation, and student-oriented values.

The language used in the script was simple yet engaging, blending descriptive and motivational expressions such as *"We are committed to shaping creative and skillful graduates ready for global challenges."* This line exemplifies both clarity and a positive institutional identity. According to Brown (2008) and Anderson (2016), such authenticity reflects students' personal engagement and understanding of the institution's mission, which enhances communicative impact.

Moreover, the analysis of the script and visuals demonstrated coherence between the verbal and visual elements. Scenes showing classroom collaboration, laboratory work, and campus activities effectively supported the textual narrative, ensuring that the content communicated both cognitive and emotional appeal. However, some minor inconsistencies were found in the pacing of information — certain parts introduced new ideas too quickly without sufficient elaboration, slightly affecting message retention.

Overall, the results support Kurniawan and Lee's (2024) observation that when students are involved as active content creators, the resulting material exhibits higher levels of relevance and authenticity. Thus, the content quality of the video can be considered strong, with minor improvements needed in narrative pacing.

3.2 Narration (AI Voice Integration)

The AI-generated narration was evaluated based on clarity, tone, and emotional resonance. The voice synthesis process utilized a neutral, English-language AI model configured for moderate speed and standard intonation. The narration achieved high intelligibility and consistency, ensuring that the institutional message was delivered clearly. These results align with previous findings by Gao and Wu

(2021) and Patel and Singh (2024), who emphasized AI's potential to reduce production time while maintaining professional-grade narration.

However, the analysis also revealed that the AI voice lacked emotional expressiveness, especially in segments requiring emphasis or warmth. For instance, during the closing statement *"Join us and experience innovation at its best,"* the voice tone remained flat, diminishing the intended motivational effect. Observational notes indicate that students initially expected the AI narration to sound "more human," and later learned to compensate by adjusting pacing and background music intensity.

This limitation reflects broader discussions in AI media research (Chen & Luo, 2023; Lee, Park, & Zhao, 2023), which identify emotional nuance and cultural sensitivity as ongoing challenges for synthetic voice systems. Despite these constraints, the AI voice integration proved valuable pedagogically: students developed awareness of *digital ethics, tool limitations,* and *creative adaptation.*

Thus, while the narration aspect demonstrates technical efficiency, it still requires human–AI hybridization to achieve optimal audience engagement.

3.3 Technical Quality

The technical quality of the promotional video was analyzed from three sub dimensions: visual composition, audio balance, and editing coherence. The video achieved a professional visual standard through well-composed camera shots, stable transitions, and synchronized on-screen text. High-resolution footage of the campus and local culture contributed to strong aesthetic appeal.

In terms of editing, the video displayed smooth sequencing and effective timing between narration and visuals. The integration of institutional colors and logo placement reflected awareness of branding consistency, confirming that students successfully applied design principles discussed during the production phase.

Nevertheless, some weaknesses were observed in audio mixing—particularly moments when background music slightly overpowered narration (e.g., timestamps 00:58–01:05). This minor issue affected intelligibility and reduced auditory balance. Similar challenges have been reported in university media projects analyzed by Yusof, Karim, and Abdullah (2021), who noted that technical mastery often requires iterative refinement and expert supervision.

From a pedagogical standpoint, the production process allowed students to apply cross-disciplinary skills, combining language, design, and technology knowledge. As noted by Anderson (2016), such interdisciplinary learning experiences foster *digital literacy* and *collaborative creativity*, key competencies in modern education.

Overall, the technical quality was evaluated as high, with only minor post-production adjustments recommended for future versions.

3.4 Promotional Effectiveness

The final aspect assessed was promotional effectiveness, defined as the ability of the video to engage its target audience, strengthen institutional identity, and inspire positive perceptions. The video successfully portrayed the institution's atmosphere and achievements through concise messaging and appealing visuals. Viewers were introduced to the institution's academic programs, facilities, and student life in a cohesive and visually engaging manner.

The persuasive strategy combined cognitive and affective appeals — highlighting both institutional quality and emotional connection. The visual storytelling evoked pride and belonging, aligning with Gao et al. (2022), who emphasized emotional storytelling as a key determinant of successful branding.

However, the short duration of the video (less than two minutes) limited narrative depth. Observational reflections suggested that students deliberately shortened the script to ensure audience

attention on social media platforms, prioritizing brevity over detail. While this decision aligns with digital marketing best practices (Kotler & Keller, 2016), it slightly constrained the richness of information.

Despite this limitation, the video's overall promotional impact was considered strong, effectively meeting its communication objectives. The balance of authenticity, clarity, and visual appeal made the product suitable for institutional dissemination across digital platforms.

3.5 Pedagogical and Technological Implications

Beyond its promotional value, the project offered significant implications for both pedagogy and technology integration in higher education. From a pedagogical perspective, the project demonstrated how *student-centered learning* can be applied to authentic, creative tasks. Students were not merely passive recipients of instruction but active designers and producers of media content. This participatory role enhanced their motivation, self-efficacy, and understanding of real-world communication demands. These findings resonate with Rahman and Park (2022), who argue that student-centered learning in hybrid contexts enhances autonomy and collaborative competence.

From a technological standpoint, the integration of AI voice generation encouraged students to engage with emerging digital tools critically. They learned to evaluate tool limitations, experiment with expressive parameters, and reflect on ethical dimensions such as authorship and authenticity. The process thus contributed to the cultivation of *AI literacy*—a crucial skill in contemporary education (Lee et al., 2023).

Finally, from an institutional standpoint, the project demonstrated that educational innovation can simultaneously advance learning outcomes and serve strategic communication goals. The institution benefited from a high-quality promotional product, while students gained valuable creative and technical experience. This dual outcome supports the idea of edu-marketing synergy, where pedagogical and promotional objectives intersect productively (Yusof et al., 2021).

4. Discussion

The overall findings affirm that integrating AI voice generation with student-centered learning in promotional video production is both feasible and beneficial. The project functioned as an authentic learning environment where students practiced creativity, digital skills, and collaboration—while producing a tangible, high-impact outcome for the institution.

Although AI technology has not yet reached full expressive equivalence with human narration, its integration into educational projects fosters innovation, cost efficiency, and the development of future-ready competencies. The combination of pedagogy and technology thus emerges as a sustainable model for higher education institutions seeking to balance academic and communicative excellence.

5. Conclusions

This qualitative descriptive study evaluated an institutional promotional video developed through the integration of *student-centered scriptwriting* and *AI voice generation*. The analysis, focusing on four key aspects—content quality, narration, technical quality, and promotional effectiveness—provides valuable insights into both the pedagogical and technological dimensions of educational media innovation.

The results indicate that involving students in script development enhanced the authenticity, creativity, and persuasive appeal of the video's message. The content effectively reflected the institution's identity and values, aligning visual and textual elements to produce a coherent narrative. The application of AI voice technology contributed to production efficiency, consistency, and cost-

effectiveness; however, it also revealed limitations in emotional expressiveness and cultural nuance, confirming earlier studies (Gao & Wu, 2021; Chen & Luo, 2023).

From a broader perspective, the project demonstrated that integrating student-centered pedagogy with AI tools is not only feasible but also pedagogically meaningful. It promotes digital literacy, collaboration, and critical awareness of technology's role in communication. Moreover, the initiative shows how educational institutions can leverage academic projects for dual purposes—enhancing student learning while simultaneously strengthening institutional branding.

In conclusion, this study underscores the transformative potential of merging *pedagogical innovation* and *technological advancement*. By engaging students as co-creators and applying AI-driven narration, institutions can cultivate 21st-century competencies while producing creative promotional outputs that resonate with modern audiences.

Acknowledgements

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