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The Implementation of Task-Based Digital Storytelling to Enhance Students' Speaking Competency in Primary School

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Abstract

This study aims to investigate the effect of implementing Task-Based Digital Storytelling through the Technology-Mediated Task-Based Language Teaching (TMTBLT) approach on improving primary school students' speaking competency. This research employed a quantitative approach using a pre-experimental design with a one-group pre-test and post-test model. The participants of this study were 36 sixth-grade students at a primary school in Bali. Data were collected through speaking tests administered as pre-test and post-test and assessed using a speaking rubric covering pronunciation, grammar, vocabulary, fluency, and comprehension. The data were analyzed using descriptive statistics, normality testing, and a paired sample t-test. The findings revealed a significant improvement in students' speaking competency after the implementation of Task-Based Digital Storytelling. The mean score increased from 59.44 in the pre-test to 75.89 in the post-test. The paired sample t-test result showed a significance value of 0.000 ($p < 0.05$), indicating a statistically significant difference between students' speaking performance before and after the intervention. These findings suggest that Task-Based Digital Storytelling within the TMTBLT framework is an effective instructional strategy to enhance primary school students' speaking competency and to create a more interactive and meaningful language learning environment.

Keywords: *task-based digital storytelling, speaking competency, TMTBLT, primary school students, English language learning.*

INTRODUCTION

One of the key elements of English language proficiency that is essential to communication is speaking ability. Fluency, pronunciation, syntax, and comprehensibility are some of the components that make up this ability (Bram & Angelina, 2022). In a communicative English language learning, speaking has a strategic role as the main bridge between linguistic competency and real-world implementation. Speaking competency plays a key role in meeting 21st-century education goals, which prioritize communication, collaboration, creativity, and critical thinking as essential skills for lifelong learning and global participation (Birrina & Emaliana, 2022).

However, the fact in reality shows that there are many elementary school students who have not yet mastered English speaking competency actively and confidently. This gap between hope and reality reflects various obstacles that students face during the learning process. At SD Negeri 3 Banjar Jawa, the problem of limited English-speaking skills was evident during preliminary classroom observations. Many sixth-grade students hesitated when asked to speak in English, often giving only one or two-word responses. This indicates that their speaking ability remains underdeveloped compared to other skills such as reading or writing. Several factors contribute to this issue, including limited vocabulary, fear of making mistakes, and a lack of confidence when speaking in front of peers. The situation is further influenced by the fact that English is taught by the homeroom teacher, who is responsible for teaching all subjects in the class. With divided attention and no background in English, the teacher tends to rely on conventional, teacher-centered methods.

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Considering various issues, the students have faced in learning speaking skills, an approach that is capable to provide a contextual, meaningful, and able to encourage students to actively using English learning experience is needed. One of the widely developed innovative language teaching approach these days is Task-Based Language Teaching (TBLT). TBLT is a learning method that focus on the implementation of communicative task that portrays real activity in daily life (Almefleh et al., 2023).

Several previous research have proven the effectiveness of TBLT in improving students speaking skills. This approach is capable in improving students' active participation, strengthen their self-confident during speaking, and help them to use the language spontaneously in real context (Akinyi et al., 2024). In research conducted by Setiawati et al (2024), teacher who implemented TBLT reported a significant impact in students speaking skills and their enthusiasm during learning. Other than that, Wardana et al (2024) shows that students who use task-based approach in their learning experience their anxiety decreasing when speaking and show better verbal performance. TBLT also encourages emotional and social involvement by doing group work and discussion, which become an effective facility to enhance communicative competency (Ratminingsih & Budasi, 2020). Thus, this approach not only provide results from cognitive aspects, but also from affective and social aspect in language learning.

The development of technology in education environment, one of the media that has been proven effective in the development of language competence is digital storytelling, it is a practice to combine verbal narration with multimedia element such as, picture, music, and voices to create digital story (Abbott, 2018). Digital storytelling promotes emotional engagement, teamwork, and meaningful learning experiences for students, according to recent studies (Wahyuni & Pratiwi, 2021). The digital storytelling conceptual framework created by Padmadewi et al (2023) combines digital narrative components with interactive learning concepts to provide an engaging, captivating, and significant learning environment. This framework's emphasis on active participation, creativity, and engagement makes it applicable to technology-based language learning.

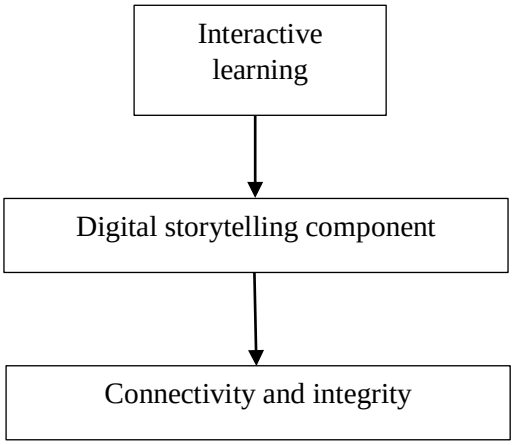

Figure 1. Digital Storytelling Framework
Source: Yang & Wu (2012)

A recent development study by Pitaloka et al (2024) on e-storybooks for fifth-grade students utilized a Design and Development (D&D) model aligned with TBLT principles, creating interactive stories that served as a meaningful task. The product was judged "Excellent" by experts and teachers, confirming that well-designed, task-based digital materials can successfully meet curriculum goals and student needs. Furthermore, the efficacy of TBLT is further substantiated by empirical research across different language skills. For instance, a recent study by Setiawati et al (2024) investigating the use of TBLT-based digital storybooks for reading skills demonstrated a significant improvement among ninth-grade students. The reported

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large effect size (Cohen's d = 0.537) indicates that integrating meaningful tasks with digital media not only enhances comprehension but also yields a substantial practical impact on learning outcomes.

Numerous studies have attested to the positive effects of digital storytelling on enhancing students' speaking skills, for instance. The implementation of TMTBLT face several significant challenges. This underscores the critical need for targeted professional development. Supporting this, a study by Padmadewi et al (2023) on elementary teachers' readiness for technology-based literacy instruction found that structured multimodal training—covering tools like Wordwall, Kahoot, and Google Forms—significantly increased teachers' readiness, effort, willingness, and capacity. They concluded that "multimodal training positively affects teacher readiness in implementing technology-based English literacy learning," providing a replicable model for overcoming this central challenge in TMTBLT. Moreover, the importance of teacher competence in technology integration is highlighted by Agustini et al (2019), who analyzed TPACK competence among Education Technology alumni. While their content and pedagogical knowledge were high, their competence in integrating technology (Technological Pedagogical Knowledge/TPK = 48.30%) was notably lower. This research gap reinforces the need for the specific multimodal training emphasized by Padmadewi et al (2023) to bridge the divide between pedagogical knowledge and technological application.

This current study aims to fill the gap by investigating the implementation of digital storytelling in a technology-mediated task-based language teaching (TMTBLT) approach for elementary school students in Indonesia. The novelty of this research lies in its combination of TBLT and digital storytelling within an experimental design, its focus on primary level students, and its integration of fluency, confidence, and multimedia narrative production to enhance speaking competence. While previous studies confirmed the potential of both TBLT and digital storytelling independently, the synergistic integration of both within primary level English classrooms remains underexplored. This study is expected to offer new insights into how such integrated instructional design can improve young learners' speaking performance in a meaningful and engaging way. this study is hypothesized to give significant effect on students' speaking competency by using task-based digital storytelling.

RESEARCH METHODS

This research used quantitative approach by using pre-experimental design, especially one group pre-test post-test model. This design is chosen due to the lack of research related to Technology-Mediated Task-Based Language Teaching (TMTBLT) in a primary school context. This model used one student group who were given speaking test before and after the experiment, without control group. Moreover, this design also allows the researcher to intervene directly in real classroom context while still considering the limitations of available resources (Best & Kahn, 1995).

The research conducted at one primary school in Bali that implements English language learning by involving one class and one English language teacher. Research sample includes one 6th grade class at SD Negeri3 Banjar Jawa, with one teacher as the main facilitator. Instrument used includes TMTBLT based lesson plan, speaking assessment rubric, and speaking test which is implemented in a form of pre-test and post-test. The speaking test is designed as a communicative task based on digital storytelling, where students are asked to present or retell stories verbally using the technology. In addition, Audio-visual equipment is used to record the tests for impartial analysis. To identify any variations or advancements, the pre-test and post-test scores are then compared. The goal of this study is to determine whether sixth-grade students in primary school's speaking abilities differ significantly before and after a technology-mediated task-based language teaching (TMTBLT)-based learning technique was used.

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RESULTS AND DISCUSSION

Results

This study employed a pre-experimental design with a one-group pretest-posttest model. The findings were derived through a three-step analytical procedure: descriptive statistics to summarize the overall performance, a normality test to verify the data distribution, and a Paired Sample T-Test to determine the statistical significance of the observed differences.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
PreTest	36	20.00	84.00	59.4444	2.36457	14.18741
PostTest	36	56.00	96.00	75.8889	1.77092	10.62552
Valid N	36					

Based on the Table 1, the mean score increased by 16.44 points, from 59.44 in the pre-test to 75.89 in the post-test. This substantial rise in the average indicates a general improvement in the class's speaking competency following the TMTBLT intervention. Furthermore, the minimum score saw a dramatic rise from 20 to 56, suggesting that the intervention also supported students who initially struggled the most. The maximum score improved from 84 to 96, showing that higher-achieving students still found room for growth. An equally important finding is the reduction in the standard deviation from 14.19 to 10.63. This decrease implies that the variability among students scores lessened; their speaking abilities became more homogeneous and clustered around the higher mean after the treatment.

Table 2. Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PreTest	.154	36	.030	.960	36	.219
PostTest	.123	36	.188	.961	36	.235

Based on the Table 2, the significance values (Sig.) for both the pre-test (.219) and post-test (.235) are greater than the standard alpha level of 0.5 ($p > .05$). This fulfilment of the normality assumption validates the subsequent use of a parametic test, the Paired Sample T-Test.

Table 3. Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	PreTest - PostTest	-16.44444	10.10924	1.68487	-19.86492	-13.02397	-9.760	35	.000

The result of the paired sample t-test in Table 3 shows that the significance value (Sig. 2-tailed) is 0.000, which is lower than the standard significance level of 0.05 ($p < 0.05$). This indicates that there is a statistically significant difference between the pre-test and post-test scores. The result confirms that the implementation of Task-Based Digital Storytelling within the TMTBLT framework significantly improved students' speaking competency.

Discussion

Based on the findings, the data analysis confirms that the implementation of Task-Based Digital Storytelling through the Technology-Mediated Task-Based Language Teaching (TMTBLT) approach resulted in a statistically significant improvement in the speaking competency of sixth grade students at one primary school at Bali. The paired sample t-test yielded a significance value of .000 ($p < .05$), leading to the rejection of the null hypothesis and acceptance of the alternative hypothesis. This significant difference can be attributed to the synergistic integration of task-based pedagogical principles and the engaging affordances of

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digital storytelling, which collectively created a more meaningful, interactive, and low-anxiety learning environment. TBLT focuses on activities that reflect real-world language use, moving beyond rote memorization. This meaningful engagement is supported by the findings of Pitaloka et al (2024), who observed that digital storytelling projects in primary schools enhanced fluency and confidence because students were deeply absorbed in the narrative task. Similarly, in this research, the shift from hesitant, one-word responses in the pre-test to more fluid and extended narratives in the post-test demonstrates how task authenticity fosters spontaneous language production.

Following this input, tasks like collaborative story reconstruction forced students to negotiate meaning, ask questions, and provide explanations to peers. aligned with Vygotsky (1978) sociocultural theory, reduced the fear of making mistakes and built a sense of shared purpose. corroborates this, showing that digital storytelling tasks among young learners promoted high levels of spontaneous language use and peer-supported creativity Ogegbo et al (2024). In this study, the interactive classroom environment reduced the fear of making mistakes, as the goal was successful collaboration rather than isolated grammatical perfection. The multimodal input—combining visual, auditory, and narrative elements—made the language more comprehensible and emotionally engaging Cahyani et al (2025). The enjoyable and creative process of working with digital stories likely increased intrinsic motivation and reduced foreign language anxiety, a factor known to hinder speaking performance Birrina & Emaliana (2022).

However, the implementation process also revealed several practical considerations that must be acknowledged to ensure the approach runs smoothly. These observations align with challenges noted in the broader literature on Technology-Mediated TBLT. the study encountered initial hurdles related to students' varying levels of digital literacy and the time required for them to become comfortable with the storytelling platform, managing collaborative tasks in a relatively large class required careful classroom management and clear procedural instructions. These practical constraints underscore that the success of Task-Based Digital Storytelling depends not only on its pedagogical design but also on adequate technical preparation, paced scaffolding, and adaptive classroom facilitation (Cabrera-Duffaut et al., 2024; Kim & Kim, 2023).

CONCLUSION

This study employed a quantitative pre-experimental design using a one-group pretest–posttest model involving sixth-grade students at a primary school. Data were collected through speaking assessments administered before and after the implementation of the instructional treatment and evaluated using a validated rubric covering pronunciation, grammar, vocabulary, fluency, and comprehension. During the intervention, students engaged with digital stories and completed communicative speaking tasks such as retelling, reconstructing, and expanding narratives within the framework of Task-Based Digital Storytelling. The analysis indicated a statistically significant improvement in students' speaking competency after the implementation of the learning approach. These findings suggest that integrating digital storytelling within the Technology-Mediated Task-Based Language Teaching framework can effectively enhance students' speaking performance while creating a more engaging and meaningful language learning experience. Therefore, the Task-Based Digital Storytelling model is recommended to be integrated into speaking instruction with appropriate classroom management strategies, adequate technological support, and professional development for teachers. Future studies are encouraged to employ more rigorous research designs, explore broader learning contexts, and investigate the long-term and affective impacts of this approach in order to further strengthen its implementation in primary school language learning.

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