How to Cite
Prayoga, I. G. P. A., Suryasa, I. W., & Suwartama, I. M. (2026). Developing English speaking competency through digital storytelling with personal photographs among sixth-semester information systems students at ITB STIKOM Bali. *International Journal of Humanities, Literature and Arts*, *9*(1), 30-35. https://doi.org/10.21744/ijhla.v9n1.2498

Developing English speaking competency through digital storytelling with personal photographs among sixth-semester information systems students at ITB STIKOM Bali

I Gede Putu Adhitya Prayoga
Information Systems Study Program, ITB-STIKOM Bali, Denpasar, Indonesia
Corresponding author email: igpadhityaprayoga@gmail.com

I Wayan Suryasa
Information Systems Study Program, ITB-STIKOM Bali, Denpasar, Indonesia

I Made Suwartama
Information Systems Study Program, ITB-STIKOM Bali, Denpasar, Indonesia

Abstract---*English-speaking competency is an essential skill for Information Systems students to communicate technical ideas and prepare for professional careers in the global workplace. However, many undergraduate students still experience difficulties in speaking English due to limited practice, lack of confidence, and communication anxiety. This classroom action research investigated the effectiveness of Digital Storytelling using personal photographs in improving the English-speaking competency of sixth-semester Information Systems students at ITB STIKOM Bali during the 2026 academic year. The study involved 32 students and was conducted in two action research cycles following the planning, action, observation, and reflection model. Data were collected through speaking performance assessments, classroom observations, questionnaires, reflective journals, and video recordings. The results showed continuous improvement in students' speaking performance, with the mean score increasing from 64.5 in the preliminary assessment to 74.8 after Cycle I and 84.3 after Cycle II. Improvements were observed in pronunciation, grammar, vocabulary, fluency, content organization, and speaking confidence. Furthermore, 96.9% of the participants reported that Digital Storytelling increased their motivation and confidence to communicate in English. These findings indicate that Digital Storytelling with personal photographs is an effective instructional strategy for enhancing speaking competency in English for Specific Purposes courses at the university level.*
Keywords---*Digital storytelling, English for Specific Purposes, personal photographs, speaking competency, undergraduate students.*

Introduction

English-speaking competency has become an essential skill for university students, particularly those enrolled in Information Systems programs, as graduates are expected to communicate technical concepts, collaborate in multicultural teams, and present innovative ideas in professional environments. In the era of Industry 5.0, technical expertise alone is insufficient; employers increasingly value graduates who possess effective oral communication skills alongside digital literacy and problem-solving abilities. Consequently, English for Specific Purposes (ESP) courses at the tertiary level should provide meaningful opportunities for students to develop authentic communication skills relevant to their academic and future professional contexts.

Despite its importance, speaking remains one of the most challenging language skills for English as a Foreign Language (EFL) learners. Many undergraduate students experience limited vocabulary, inadequate grammatical

ISSN 2632-9441
Submitted: 27 May 2026 |Revised: 18 June 2026 | Accepted: 09 July 2026

accuracy, low self-confidence, and anxiety when speaking English. These challenges are often intensified by traditional classroom practices that emphasize grammar exercises and written assignments while providing limited opportunities for meaningful oral interaction (Richards, 2022). Therefore, innovative instructional approaches are needed to create engaging learning environments that encourage students to communicate confidently.

Digital Storytelling has recently gained attention as an effective pedagogical strategy for promoting language learning. By integrating personal experiences with digital media, Digital Storytelling enables learners to organize ideas, improve language production, and communicate more authentically (Robin, 2008). Previous studies have reported that Digital Storytelling enhances speaking fluency, learner engagement, and communication confidence (Yang & Wu, 2012; Hafner & Miller, 2021). Furthermore, photographs can stimulate memory, encourage descriptive language, and support students in constructing coherent narratives, making speaking activities more meaningful and less intimidating.

Although previous research has demonstrated the benefits of storytelling and visual media in language learning, most studies have focused on primary or secondary school students and general English instruction. Limited research has explored the integration of Digital Storytelling using personal photographs within English for Specific Purposes (ESP) courses for undergraduate Information Systems students. Moreover, authentic storytelling based on students' academic projects and personal experiences remains underexplored in higher education contexts (Wu & Chen, 2020).

To address this gap, the present classroom action research implemented Digital Storytelling using personal photographs to improve the English-speaking competency of sixth-semester Information Systems students at ITB STIKOM Bali during the 2026 academic year. The study aimed to examine the effectiveness of this instructional approach in enhancing students' pronunciation, grammar, vocabulary, fluency, content organization, and speaking confidence while fostering more authentic and engaging communication in an ESP learning environment.

Method

Research Design

This study employed a Classroom Action Research (CAR) design to improve the English-speaking competency of undergraduate students through the implementation of Digital Storytelling using personal photographs. Classroom Action Research was selected because it allows lecturers to systematically identify classroom problems, implement instructional interventions, observe learning outcomes, and continuously improve teaching practices through reflective cycles (Kemmis & McTaggart, 1988).

The research consisted of two action cycles, with each cycle comprising four stages: planning, action, observation, and reflection. The planning stage involved designing lesson plans, preparing learning materials, developing assessment rubrics, and organizing storytelling activities. During the action stage, Digital Storytelling activities were implemented in the classroom. Observation was conducted throughout each instructional session to monitor students' participation, speaking performance, and classroom interaction. Finally, a reflection was carried out to evaluate the effectiveness of each cycle and to identify necessary improvements before proceeding to the next cycle (Constantinou, 2026).

Research Participants

The participants were 32 sixth-semester students enrolled in the Information Systems Study Program at ITB STIKOM Bali during the 2025-2026 academic year. The participants were selected because they were taking the English for Information Technology course, in which oral communication and presentation skills constitute important learning outcomes.

Preliminary classroom observations indicated that although most students possessed sufficient reading and writing abilities, many experienced difficulties when communicating orally in English. Common challenges included limited vocabulary, grammatical inaccuracies, hesitation during speaking, pronunciation problems, and low confidence when presenting ideas in front of their classmates. Therefore, the class was considered appropriate for implementing an instructional intervention aimed at improving speaking competency.

Instructional Procedures

The intervention was conducted over eight classroom meetings, consisting of one preliminary assessment session, six instructional meetings, and one final speaking assessment. The instructional activities were designed according to the principles of Digital Storytelling, where students created authentic spoken narratives based on personal digital photographs stored on their smartphones.

During Cycle I, students were introduced to the concept of Digital Storytelling and practiced constructing simple narratives using photographs related to their academic experiences, favorite software development projects, campus

activities, or memorable learning experiences. Students first worked individually to organize their ideas before discussing their stories with classmates in pairs and small groups. Each meeting concluded with individual oral presentations followed by lecturer feedback focusing on pronunciation, vocabulary, grammar, and fluency.

Following the reflection from Cycle I, several instructional improvements were implemented during Cycle II. Additional pronunciation drills, vocabulary-building activities, grammar review sessions, and peer-feedback discussions were incorporated before students delivered more comprehensive storytelling presentations. Students were encouraged to elaborate on internship experiences, collaborative software projects, and future career aspirations while using personal photographs to support their presentations. The integration of visual media helped students organize ideas more effectively and reduced anxiety during oral communication.

Research Instruments

Multiple research instruments were employed to obtain comprehensive quantitative and qualitative data. The primary instrument was a speaking performance assessment, administered during the preliminary assessment, at the end of Cycle I, and at the end of Cycle II. Students were individually assessed while delivering Digital Storytelling presentations based on their personal photographs.

The assessment rubric consisted of six criteria: pronunciation, grammatical accuracy, vocabulary usage, fluency, content organization, and speaking confidence. Each criterion was scored using a five-point rating scale and converted into a percentage score ranging from 0 to 100. In addition to the speaking assessment, an observation checklist was used throughout the implementation to document students' classroom participation, interaction, engagement, confidence, and responsiveness during learning activities.

A student perception questionnaire was administered at the end of Cycle II to investigate participants' attitudes toward Digital Storytelling as a learning strategy. The questionnaire consisted of ten Likert-scale statements addressing learning motivation, confidence, classroom interaction, speaking anxiety, and perceived learning effectiveness.

To strengthen the qualitative findings, the lecturer also maintained reflective field notes documenting classroom situations, instructional challenges, students' progress, and modifications implemented throughout the research. Students' storytelling presentations were additionally recorded using video to facilitate more accurate speaking assessment and reflection.

Data Collection

Data were collected throughout the implementation of the two research cycles. Quantitative data were obtained from students' speaking performance assessments administered during the preliminary assessment, Cycle I evaluation, and Cycle II evaluation. The assessment scores provided evidence of students' improvement across the six speaking components.

Qualitative data were collected through classroom observations, reflective notes, questionnaire responses, and video recordings. These data were used to explain students' learning behaviors, classroom participation, confidence development, and perceptions regarding the Digital Storytelling activities. The integration of quantitative and qualitative data enabled a comprehensive evaluation of the effectiveness of the instructional intervention while providing a richer understanding of the learning process.

Data Analysis

Quantitative data were analyzed descriptively by calculating the mean speaking scores obtained during the preliminary assessment, Cycle I, and Cycle II. Improvements were examined for each speaking component, including pronunciation, grammar, vocabulary, fluency, content organization, and confidence. Percentage analysis was also conducted to determine the proportion of students achieving the minimum passing criterion established for the course.

Questionnaire responses were analyzed using descriptive percentages to identify students' perceptions of the Digital Storytelling activities. The percentage of responses for each questionnaire item was calculated to determine participants' levels of agreement regarding motivation, engagement, confidence, and learning satisfaction.

Qualitative data obtained from classroom observations, reflective journals, and video recordings were analyzed through descriptive interpretation. The findings were triangulated with the quantitative results to ensure consistency and provide a comprehensive explanation of students' speaking development throughout the intervention.

Results and Discussions

Results

The implementation of Digital Storytelling using personal photographs demonstrated a positive impact on students' English-speaking competency throughout the two action research cycles. A preliminary speaking assessment conducted before the intervention indicated that many students experienced difficulties in organizing ideas, using appropriate vocabulary, maintaining grammatical accuracy, and speaking fluently. In addition, classroom observations revealed that several students lacked confidence and were reluctant to communicate in English during classroom activities.

Following the implementation of Digital Storytelling, gradual improvement was observed in every stage of the study. Students became more willing to participate in oral activities because the use of personal photographs enabled them to discuss familiar experiences rather than unfamiliar topics. Consequently, students demonstrated greater confidence, richer vocabulary use, and better organization of ideas during their storytelling presentations.

Table 1
Mean Speaking Scores Across the Research Cycles

Assessment	Mean Score	Improvement
Preliminary Assessment	64.5	-
Cycle I	74.8	+10.3
Cycle II	84.3	+9.5

The findings indicate that the average speaking score increased from **64.5** during the preliminary assessment to **74.8** after Cycle I, representing an improvement of **10.3 points**. Following instructional modifications in Cycle II, including pronunciation drills, peer feedback, and additional speaking practice, the mean score further increased to **84.3**, exceeding the minimum passing criterion established for the course. The continuous upward trend demonstrates that repeated storytelling practice combined with reflective instructional improvements successfully enhanced students' oral communication performance. A more detailed analysis was conducted to examine students' achievement across six speaking components assessed during the study.

Table 2
Students' Mean Scores by Speaking Component

Speaking Component	Preliminary	Cycle I	Cycle II
Pronunciation	63	74	84
Grammar	62	73	83
Vocabulary	66	76	86
Fluency	61	73	84
Content Organization	65	76	86
Confidence	60	77	83

Table 2 demonstrates improvements across all assessed components. Confidence exhibited the greatest improvement, increasing from **60** to **83**, suggesting that students became progressively more comfortable speaking before their classmates. Vocabulary and content organization also showed notable gains because students were encouraged to describe authentic personal experiences supported by visual prompts. Furthermore, grammar and

pronunciation improved after additional corrective feedback and pronunciation practice were incorporated into Cycle II.

The observation findings confirmed that students relied less on memorization and instead communicated ideas more naturally. Most participants were able to maintain longer conversations, elaborate on personal experiences, and respond confidently to follow-up questions from the lecturer and classmates. At the conclusion of Cycle II, students completed a perception questionnaire to evaluate the instructional strategy.

Table 3
Students' Responses to Digital Storytelling

Questionnaire Statement	Agree (%)
Increased motivation to speak English	96.9
Improved speaking confidence	93.8
Helped organize speaking ideas	96.9
Made learning more enjoyable	100.0
Reduced speaking anxiety	90.6
Recommended for future English classes	96.9

The questionnaire results reveal overwhelmingly positive student perceptions of Digital Storytelling. All participants agreed that storytelling activities supported by personal photographs created a more enjoyable classroom environment. Additionally, **96.9%** reported that the activities increased their motivation and helped them organize ideas more effectively before speaking. More than **90%** indicated that the strategy reduced anxiety when presenting in English.

These findings were consistent with classroom observations. Students appeared increasingly active during pair discussions, frequently exchanged ideas with classmates, and demonstrated greater willingness to volunteer for oral presentations. The use of familiar photographs minimized cognitive load because students could focus on language production rather than generating unfamiliar content.

Discussions

The findings indicate that Digital Storytelling using personal photographs effectively enhanced the English-speaking competency of sixth-semester Information Systems students at ITB STIKOM Bali. Improvements were observed not only in overall speaking scores but also in pronunciation, grammar, vocabulary, fluency, content organization, and speaking confidence. The combination of authentic visual materials and meaningful personal experiences encouraged students to communicate more naturally and confidently in English.

One important finding is the substantial increase in students' confidence throughout the intervention. During the preliminary observation, many participants hesitated to speak because they feared making grammatical or pronunciation mistakes. However, storytelling based on personal photographs provided familiar contexts that reduced anxiety and enabled students to focus on expressing ideas rather than memorizing language forms. This finding supports previous studies suggesting that storytelling promotes meaningful communication and increases learners' willingness to speak.

The improvement in vocabulary and content organization also demonstrates the value of integrating authentic experiences into English for Specific Purposes (ESP) instruction. Students described software development projects, internship experiences, campus activities, and personal achievements using photographs as visual prompts. This approach enabled learners to connect English with their academic discipline, resulting in more relevant and purposeful communication. Unlike conventional speaking exercises based solely on textbook dialogues, Digital Storytelling encouraged students to produce longer, more coherent, and personally meaningful narratives.

The findings are consistent with Robin (2008), who emphasized that Digital Storytelling enhances communication skills by integrating narrative construction with digital media. Similarly, Yang & Wu (2012),

reported that storytelling activities improve language performance and learner engagement through authentic communication tasks. The present study extends these findings by demonstrating that Digital Storytelling can also be effectively implemented in an English for Specific Purposes course for Information Systems students, a context that has received relatively limited attention in previous research.

Overall, the integration of Digital Storytelling with personal photographs created an engaging learning environment that promoted active participation, collaborative learning, and continuous speaking practice. The systematic reflection incorporated in each action research cycle enabled instructional improvements that contributed to students' steady progress throughout the intervention. These findings suggest that Digital Storytelling represents an effective pedagogical strategy for enhancing speaking competency among university students preparing for professional careers in technology-related fields.

Conclusion

This study found that Digital Storytelling using personal photographs effectively improved the English-speaking competency of sixth-semester Information Systems students at ITB STIKOM Bali. Students demonstrated consistent improvement in pronunciation, grammar, vocabulary, fluency, content organization, and speaking confidence, as reflected in the increase of the mean speaking score from **64.5** in the preliminary assessment to **84.3** at the end of Cycle II. Positive student responses also indicated that the technique created a more engaging and motivating learning environment. These findings suggest that Digital Storytelling is an effective instructional strategy for English for Specific Purposes (ESP) courses in higher education. Future studies may examine its application in other academic disciplines or integrate it with emerging educational technologies to further enhance students' communication skills.

References

Constantinou, E. K. (2026). English for specific purposes in higher education: Integrating entrepreneurial and sustainability-oriented practices. *Social Sciences & Humanities Open*, *13*, 103025. https://doi.org/10.1016/j.ssaho.2026.103025

Hafner, C. A., & Miller, L. (2021). *English in the disciplines: A multidimensional model for English across the curriculum*. Routledge.

Kemmis, S., & McTaggart, R. (1988). *The action research planner* (3rd ed.). Deakin *University* Press.

Richards, J. C. (2022). *Teaching listening and speaking: From theory to practice* (2nd ed.). *Cambridge* University Press.

Robin, B. R. (2008). Digital storytelling: A powerful technology tool for the 21st century *classroom*. *Theory Into Practice, 47*(3), 220–228.

Wu, J., & Chen, D. T. V. (2020). A systematic review of educational digital storytelling. *Computers & Education*, *147*, 103786. https://doi.org/10.1016/j.compedu.2019.103786

Yang, Y. T. C., & Wu, W. C. I. (2012). Digital storytelling for enhancing student academic achievement, critical thinking, and learning motivation: A year-long experimental study. *Computers & education*, *59*(2), 339-352. https://doi.org/10.1016/j.compedu.2011.12.012