

PASER TRAIL SECRETS GAME: IMPLEMENTING INTERACTIVE STRATEGIES TO PRESERVE THE PASER LANGUAGE IN THE DIGITALIZATION ERA

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Abstract

Objective: This study aims to design and analyze the potential of "*Paser Trail Secrets*", an interactive educational game, as a strategy for preserving the Paser language among the younger generation in the digitalization era.

Design/methodology/approach: This conceptual study is supported by descriptive survey data through an online questionnaire of young people living in Paser Regency aged 15-30 years to map their Paser language skills and acceptance of educational game media.

Findings: The majority of respondents (61.7%) are unable to speak Paser and only (10%) are fluent, while (60.0%) of respondents considered games to have the potential to be an effective alternative media for cultural introduction, so gamification is considered relevant as a language revitalization strategy.

Practical implications: The *Paser Trail Secrets* game can be integrated as a local content medium in schools as well as cultural promotional material by local governments and related agencies.

Originality/value: This study offers a gamification approach based on adventure narratives that combines Paser vocabulary, legends, and traditions, which have not been widely explored in efforts to revitalize regional languages in East Kalimantan.

Paper type: Conceptual and viewpoints.

Keywords: Paser language, language preservation, gamification, digitalization, cultural revitalization.

1. Introduction

The Paser language is a local cultural heritage in Indonesia that faces the threat of extinction in the digital era. The East Kalimantan Provincial Language Center, under the auspices of the Language Office of the Ministry of Education, Culture, Research, and Technology, has officially declared Paser an endangered language due to the lack of young speakers. Although efforts are underway to revive it through revitalization programs, given its proximity to the Indonesian capital as part of East Kalimantan's rich cultural heritage, the Paser language requires adaptation and innovative strategies to remain sustainable amidst the digital age.

On the other hand, the younger generation tends to use mobile phones as a more effective learning tool than face-to-face learning, although their interest in preserving regional languages remains low. Based on this situation, this study proposes the educational game "*Paser Trail Secrets*" as an interactive strategy to introduce the Paser language and history to the younger generation through a medium familiar to their daily lives.

This study's contributions are both theoretical and practical. Theoretically, it enriches discussions on gamification as an instrument for revitalizing regional languages, and practically, it offers a concrete game design that can be adopted by schools and local governments as a medium for local content. It is hoped that the implementation of this game will increase the interest of the younger generation in the Paser language while strengthening local cultural identity in a sustainable manner.

2. Literature Review

Language is at the heart of a society's cultural identity, where values, traditions, and intergenerational history are embedded. Amir (2023) emphasized that language transmission from parents to children within the family environment is a crucial aspect in preserving regional languages. UNESCO notes that nearly 50% of the world's 7,000 languages are threatened with extinction, including several regional languages in Indonesia, due to the dominance of national languages and globalization (Amir, 2023).

Fazriani et al. (2025) explained that the Paser language is in critical condition, with the dialect spoken by fewer than 50,000 people out of an estimated 200,000 active speakers in Paser Regency. Saputra (2021) attributed this decline to modernization, immigrant migration, and intermarriage, which erode everyday language use. Putri et al. (2025) added that the dominance of Indonesian and globalization are accelerating the erosion of regional languages because the younger generation views them as traditional symbols that are less relevant to career opportunities or modern expression.

Dzakiyah (2025) identified a lack of shared responsibility, both from families and schools, as a cause of the weak transmission of regional languages to the younger generation. Luksiawati et al. (2025) and Suhassatya (2025) emphasized that language extinction means the irreplaceable loss of knowledge systems, local wisdom, and cultural identity. In comparison, the revitalization of Welsh through education, technology (Cymraeg app, S4C, BBC Cymru Wales), and official government recognition succeeded in increasing the proportion of speakers from 20% (1991) to 30% (2021), demonstrating that cross-sector collaboration and the use of technology can reverse the trend of language extinction (Government, 2021).

In terms of learning media, Rahmadani (2025) and Fawaid et al. (2025) demonstrated that educational games with visual and gamification elements can increase learning motivation and reduce student anxiety. These studies form the basis for the argument that the gamification approach has the potential to be effectively applied in the context of Paser language revitalization, given the young generation's familiarity with digital devices. Based on this review, this study is conceptual in nature and does not formulate a formal hypothesis, but rather develops a design proposition regarding how gamification can be implemented as a strategy for preserving Paser language.

3. Research Methods

This study used a quantitative descriptive design combined with a conceptual approach to design a gamification solution. Descriptive data were obtained through an online survey (Google Form) distributed through accidental sampling to young people aged 15-30 years old in Paser Regency.

The survey consisted of two closed-ended, categorical questionnaires. The first questionnaire measured respondents' Paser language skills (categories: Fluent, Intermediate, Non-Fluent) with 60 respondents. The second questionnaire measured respondents' perceptions of games as an alternative medium for cultural introduction (categories: Agreed, Neutral, Disagree) with 60 respondents. Both instruments were developed and distributed via Google Form to respondents, accessible to the researchers during the study period.

The data analysis technique used descriptive statistics in the form of frequency distributions and percentages for each answer category, which were then interpreted narratively to support the argument for the need for and potential acceptance of the educational game *Paser Trail Secrets*. The results of this survey serve as an empirical basis for the game's conceptual design, which is described in the Results and Discussion section.

4. Results and Discussion

4.1 Respondent Data Characteristics

The results of the first questionnaire (N=60) showed that the majority of young people in Paser Regency are not yet able to actively speak Paser. Details of the distribution are presented in Table 1.

Table 1. Paser Language Ability of the Young Generation (N=60)

Ability Category	Frequency	Percentage
Fluent	6	10.0%
Intermediate	17	28.3%
Non-fluent	37	61.7%
Total	60	100%

Source(s): Primary data, processed (2026)

The data in Table 1 shows that only 10% of respondents are fluent in Paser, while 61.7% cannot speak Paser at all. This finding is consistent with the East Kalimantan Language Center report, which reported

a decline in fluency from around 40% (2022) to less than 30% (2025), and SIL data, which recorded fewer than 1,000 speakers of the language in Paser. This situation underscores the urgency of creative interventions to reverse the trend of language extinction among the younger generation.

The second questionnaire (N=60) measured respondents' acceptance of games as an alternative medium for cultural introduction, with the results in Table 2.

Table 2. Perception of Games as a Medium for Cultural Introduction (N=60)

Perception Category	Frequency	Percentage
Agreed	36	60.0%
Neutral	23	38.3%
Disagree	1	1.7%
Total	60	100%

Source(s): Primary data, processed (2026)

A total of 60.0% of respondents agreed that games can be an alternative medium to books or videos for introducing culture, while 38.3% were neutral and only 1.7% disagreed. This neutrality could be due to lack of direct experience with cultural education games. These findings indicate strong market acceptance of the gamification approach as a strategy for preserving regional languages.

4.2 Conceptual Design of *Paser Trail Secrets* Game

Based on these findings, this study proposes *Paser Trail Secrets*, a free-to-play adventure-story mobile game in Indonesian and English developed with the Unity Engine and C#. Players take on the role of a Paser child who undertakes daily missions such as shopping at the market, interacting with local figures, and exploring the legend of *Princess Petung*, while constructing and typing the correct Paser vocabulary to progress the storyline.

Learning mechanisms are integrated into gameplay activities, such as fishing, where a fish can only be caught if the player correctly answers vocabulary questions, with the name of the catch displayed in both Indonesian and Paser. Beyond vocabulary, the game also introduces the traditions, traditional clothing, and historical sites of the Paser people through interactive dialogues and visually compelling game background. It also utilizes augmented reality for "virtual walks" to local landmarks and a multiplayer mode to encourage competition between friends.

Game development involved three main stakeholders: the Department of Education and Culture as a partner for local content integration; the Department of Youth, Sports, and Tourism as a liaison between the cultural, youth, and creative economy sectors, and the Department of Communication and Informatics as a facilitator for digital distribution. The production phase utilized a design-to-prototype implementation process using SCRUM sprints and GitHub-based collaboration, followed by playtesting with target users before launching on the Play Store.

The distribution strategy combines digital promotion through TikTok, Instagram, and YouTube Shorts which serve as channels with high reach among the 15-30 age group, with institutional channels through schools, universities, and local governments to ensure the game's continued use as a formal local content medium. This gamification approach aligns with the findings of Rahmadani (2025) and Fawaid et al. (2025) who stated that visual and interactive elements in learning can increase motivation, and references the success of the Welsh language revitalization model that combines technology, education, and policy support.

Compared to conventional revitalization approaches such as in-person local content in schools, where data shows implementation was only around 20% of schools in 2022, digital games offer broader accessibility because they can be accessed anytime via mobile phones, which have become a part of the daily lives of the younger generation. Thus, *Paser Trail Secrets* is positioned not as a replacement for formal learning, but rather as a complement that expands the use of the Paser language into the digital realm, which has previously been devoid of local content.

5. Conclusion

This study concludes that the low level of Paser language proficiency among the younger generation (only 10% fluent) is directly proportional to their high acceptance of games as a medium for cultural

introduction (60.0% agree), so that gamification through *Paser Trail Secrets* is a relevant strategy to support the preservation of the Paser language in the digital era. The practical implication is that this game can be integrated as a supporting medium for local content in schools as well as cultural promotion materials by relevant agencies, with support from regional budgets and cross-sector collaboration. This study's limitations lie in the incidental sampling technique, which is not fully representative of the overall population of Paser's youth, and the lack of direct testing of the game prototype to measure learning effectiveness. Future research is recommended to develop and test a functional game prototype, experimentally measure vocabulary mastery gains, and expand the sample size using probability techniques to enhance generalizability of the results.

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