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Innovation of Regional Language Learning Media Based on Gamification for the Revitalization of the Batak Toba Language

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ARTICLE INFO	ABSTRACT
<p>Article history: Received 20 May 2025 Revised 03 June 2025 Accepted 11 June 2025 Available online 30 June 2025</p> <p>ISSN: 2986-3848</p>	<p>The preservation of regional languages is crucial in maintaining national cultural identity. According to data from the Language Development and Cultivation Agency, in 2023, there will be 718 languages in Indonesia spread across 2,560 observation areas, with 11 declared extinct. One of the causes of language extinction is the apathy of speakers towards their language, especially among the younger generation, who tend to use slang. Opisada was developed as a regional language learning media based on gamification to support the revitalization of the Batak Toba language. In the initial trial phase, Opisada was implemented at SDN 173525 Balige, Toba Regency, North Sumatra, as part of language activities by the Language Ambassadors of North Sumatra in 2023. This study assesses whether Opisada can enhance the interest, knowledge, and skills in speaking Batak Toba through a game-based learning approach that integrates local cultural wisdom. The methods applied in this study include three main stages: preparation (needs analysis, material validation, instructional design), implementation (socialization, games, and mentoring), and evaluation (pre-test and post-test). A total of 20 students participated in this study. Learning scores were measured using the N-gain score, representing the standardized difference between the pre-test and post-test results. The average pre-test score increased from 4.05 to 13.35 in the post-test, with an average N-gain of 0.592, indicating a moderate improvement in Batak Toba language proficiency. Data analysis using IBM SPSS Statistics 26 showed a significant improvement in Batak Toba language mastery. These findings suggest that Opisada is effective as an interactive and educational learning media, which has the potential to be developed as a prototype for regional language learning media in Indonesia to support the strengthening and revitalization of regional languages.</p>
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1. Introduction

Regional language preservation is crucial for strengthening national cultural identity, especially in rapid globalization (Nahak, 2019). The Language Development and Training Agency, Ministry of Education, Culture, Research, and Technology, recorded 718 regional languages across 2,560 observation areas in Indonesia. Around 13% of the regional languages have had their vitality assessed. The findings show that eight languages are classified as extinct, five are critical, 24 are endangered, 12 are in decline, 24 are vulnerable (stable but at risk of extinction), and 21 are considered safe. In 2023, through the Language Development and Training Agency, the Ministry of Education, Culture, Research, and Technology initiated the revitalization of 71 regional languages across 25 provinces in Indonesia.

One of the provinces prioritized in the revitalization program is North Sumatra, which, according to Provincial Regulation No. 8 of 2017, is home to eight regional languages, including Batak Toba (Sari, 2024). This language is still actively spoken by approximately two million people, especially in communities around Lake Toba's western and southern regions (Marpaung & Tampubolon, 2022). Historically written using the

native Batak script, it is now predominantly rendered in the Latin alphabet (Lubis & Bowo, 2022). Despite its widespread presence, concerns persist regarding its declining use among younger generations, particularly in educational and formal communication contexts.

The Regional Language Revitalization Program is one of the efforts to protect regional languages and literature (Rohana et al., 2024). This effort is based on the mandate of Article 32, Paragraph 2 of the 1945 Constitution, which states that the state respects and preserves regional languages as a national cultural asset. Efforts to preserve regional languages are also the first step in reigniting pride among regional language speakers, especially among the youth. Feelings of inferiority and undervaluation of regional language speakers should no longer persist in the minds of younger speakers (Lubis et al., 2024). Hidayat Widiyanto, Head of the Language Center of North Sumatra (2023), emphasized that revitalizing regional languages is not only to prevent extinction but also to strengthen the use of regional languages among the younger generation. The idea emerged to create a learning media and game for elementary school children from grades 4 to 6 to preserve the Batak Toba language and script. Using local content and the Batak Toba language, *Opisada* (Olah Pikir Bahasa Daerah) Edition Batak Toba was created as a learning media in the form of a game. It is expected to serve as a linguistic activity that can be used as an innovative and enjoyable learning media to protect and preserve regional languages.

Gamification in educational contexts is not merely the inclusion of game elements, but a pedagogical approach grounded in psychological theories that enhance student motivation and engagement. One of the most influential theoretical frameworks is the Self-Determination Theory (Ryan & Deci, 2000), which posits that intrinsic motivation can be fostered by fulfilling three basic psychological needs: autonomy, competence, and relatedness. In *Opisada*, these needs are addressed through learner autonomy in gameplay choices, progressive challenge levels, and peer interaction in paired activities. Furthermore, Yu-kai Chou's Octalysis Framework (2015) identifies eight core motivational drivers in gamification: epic meaning, development and accomplishment, empowerment of creativity, and social influence. The *Opisada* design integrates these elements through culturally resonant content, interactive mechanics, and symbolic aesthetics, aiming to create a meaningful learning experience that enhances both linguistic skills and cultural identity. This theoretical foundation underscores the role of gamification as not only a tool for engagement but as a transformative medium for language revitalization.

An in-depth analysis of gamification's application in regional language learning reveals its multidimensional role. Firstly, gamification fosters cognitive engagement by presenting linguistic tasks as challenges, which trigger problem-solving and memory retention processes. Secondly, it nurtures affective engagement through enjoyment, satisfaction, and emotional connection to cultural content, which is especially crucial in cultivating language pride among young learners. Thirdly, it builds behavioral engagement by encouraging active participation and sustained involvement, as evidenced by *Opisada*'s two-player dynamic and competitive structure. These dimensions align with empirical findings indicating that well-designed gamification facilitates knowledge acquisition and promotes identity formation, especially when the content is rooted in learners' cultural backgrounds (Suwandana & Supratno, 2023). Therefore, integrating gamification in regional language education goes beyond methodological innovation; it is a strategic pedagogical intervention to recontextualize heritage in the digital age.

Several studies have shown that the application of gamification in learning has been proven to increase student engagement, enhance knowledge retention, and encourage intrinsic motivation in the learning process, particularly at the elementary and middle school levels (Hakim, C. A., & Widyartono, D., 2024). Furthermore, previous studies have emphasized that educational interventions based on local culture are one of the effective approaches in regional language preservation (Pardede et al., 2017; Solina et al., 2024; Hashim et al., 2024). However, most methods developed are still conventional, lack participatory approaches, and have minimal integration with educational technology. This research gap needs to be bridged through innovative, adaptive, and interactive learning methods, especially among elementary school-aged children. In response to this need, *Opisada* (Olah Pikir Bahasa Daerah) Edition Batak Toba was created as a gamified learning media that combines educational games and local content. *Opisada* is designed not only as entertainment but also as a pedagogical tool that can cultivate interest, improve knowledge, and enhance the language and script proficiency of Batak Toba among elementary school students. Through a fun and culturally contextual game approach, *Opisada* is expected to become an innovative, creative prototype for regional language learning media that can be replicated in other regions. This study aims to (1) assess the effectiveness of *Opisada* in attracting elementary school children's interest in learning Batak Toba, and (2) evaluate the potential of this media as an innovative learning model that supports regional language preservation. Using a quasi-experimental approach with pre-test and post-test and N-Gain score measurements, this article will discuss the

effectiveness of *Opisada* in Batak Toba language revitalization, while emphasizing the urgency of local language learning media in Indonesia's multicultural education policy.

2. Method

2.1. Research Design

This study adopts a Research and Development (R&D) model adapted from Borg and Gall (1983), structured into three main stages: pre-implementation, implementation, and post-implementation (Oranga & Gisore, 2023). Each stage was conducted systematically over a total duration of six weeks. The pre-implementation stage (Week 1–2) involved initial coordination with partner stakeholders, observation of the school environment, material validation, and design of the *Opisada* media. The implementation stage (Week 3–4) included socialization activities, direct use of the media in class, and technical assistance for teachers. The post-implementation stage (Week 5–6) focused on measuring media effectiveness through pre- and post-test assessments.

2.2. Participants / Subjects / Population and Sample

The population in this study included all students from SDN 173525 Balige, located in Toba Regency, North Sumatra. This school was selected based on its inclusion in the 2023 regional language revitalization program, with coordination from the Language Center of North Sumatra and the Toba Regency Education Office. The sample consisted of 20 students from grades 4 to 6, selected using purposive sampling. Selection criteria included: (1) active participation in local content language learning, (2) basic understanding of Batak Toba vocabulary, and (3) willingness and ability to participate in game-based learning. While purposive sampling allows for targeted insight, it also limits generalizability, which is acknowledged as a constraint of this study. Supporting informants, including the principal and classroom teachers, facilitated and observed the implementation process.

2.3 Research Instruments

Three key instruments were used: (1) the *Opisada* Book (Batak Toba Edition), (2) a specially designed game board featuring visual-cultural elements and Batak Toba vocabulary, and (3) pre- and post-test sheets. The pre- and post-tests, consisting of 20 multiple-choice and matching items, assessed students' translation skills from Indonesian to Batak Toba. The short-answer format and visual prompts were intended to reflect the game content and ensure alignment with media objectives. The North Sumatra Language Ambassador Mentor validated all instruments for content and linguistic appropriateness.

2.4 Data Collection Techniques

Data were gathered using (1) field observations to capture classroom dynamics and initial student conditions, (2) documentation of activities, including photos and field notes, and (3) pre-test and post-test assessments to quantify learning outcomes. Structured checklists guided observations focused on engagement and interaction. Documentation was used to triangulate findings and enrich contextual understanding.

2.5 Data Analysis

The data collected were analyzed using IBM SPSS Statistics 26 software. The analysis began with a normality test to ensure data distribution. Next, pre-test and post-test scores were compared using the normalized gain (N-gain) technique to measure the effectiveness of the learning media in improving student learning outcomes. The N-gain scores were classified into three categories: high ($g > 0.7$), medium ($0.3 \leq g \leq 0.7$), and low ($g < 0.3$), according to the Meltzer (2003) classification.

3. Result

This section presents the results of the entire research process to develop and implement the *Opisada* (Olah Pikir Bahasa Daerah) learning media as an educational innovation in revitalizing the Batak Toba language within the elementary school environment. The results include the stages of the activity from initial observation, partnership formation, instrument validation, to the implementation of the learning media in the partner school. Each stage is systematically described based on the empirical data obtained in the field. Additionally, the results of the learning evaluation through pre-test and post-test analyses are presented, showing the impact of using *Opisada* on improving students' language skills. Quantitative and qualitative data are presented as a foundation for the argumentation on the effectiveness of this media, in both cognitive and affective aspects of the students (Ahmed & Morgan, 2022).

3.1 Implementation Phase

3.1.1 Observation

The observation phase began with a discussion between the research team and the Language Ambassador Mentor of North Sumatra at the Language Center of North Sumatra to determine the location for implementing the *Opisada* linguistic activity. The location selection was based on the priority areas in the regional language revitalization program by the Language Development and Training Agency in 2023. After the location was determined, the research team prepared the necessary administrative documents, including an official introductory letter addressed to the Toba Regency Education Office. The purpose of this letter was to obtain a recommendation for a relevant elementary school as the venue for the activity. The Toba Regency Education Office selected SDN 173525 Balige as the implementation site based on coordination and field data identification. A direct observation of the school conditions and participant readiness was carried out on August 30, 2023.

3.1.2 Partnership

After determining the implementation site, the research team coordinated with the principal of SD Negeri 173525 Balige as the implementing partner. In this stage, the researchers prepared all supporting administrative documents, including a letter of permission and the school's consent to support the implementation of the linguistic activity. This partnership process aimed to ensure institutional support and create synergy between the researchers, teachers, and students in implementing the *Opisada* learning media.

3.1.3 Validation

Validation was conducted to ensure the validity of the materials and instruments used in the *Opisada* learning media. This validation was carried out by the Language Ambassador Mentor of North Sumatra, who has expertise in language and education. The *Opisada* materials and assessment instruments were critically reviewed to ensure that each element of the game, including vocabulary and cultural contexts used, was in accordance with Batak Toba language norms. This process aimed to ensure that the developed media could effectively measure and deliver the targeted competencies.

3.1.4 Creation of *Opisada*

Opisada is a linguistic activity initiated by the Language Ambassadors of North Sumatra in 2023. With the theme of "Revitalizing Regional Languages," the implementers worked with various parties and institutions to make *Opisada* a learning media as well as a game for the preservation of the Batak Toba language and script. *Opisada* consists of one book and a game board. The *Opisada* book will be printed in A3 size (29.7 x 42 cm), with the game board measuring 18 x 18 cm (the game board consists of nine 4 x 4 cm squares, with each square featuring stickers numbered 1 to 9 in Batak Toba script).



Figure 1. Desain *Opisada*

The *Opisada* media design (Figure 1) is created to support an interactive and enjoyable learning process for elementary school students. The game board consists of nine squares that can be flipped, with the back displaying three primary colors: red, white, and black. These colors serve as guides for the final result, indicating whether the students' answers match the key answers set for each game edition. If the color sequence that appears after the square is flipped matches the color code on the answer key, the student is considered to have answered the question correctly. Additionally, the game board contains instructions to assist students in understanding how to answer the questions. The left column of the board contains the questions in Indonesian,

presented with illustrative images, while the right column contains the answers in the Batak Toba language. The entire design is intended not only to facilitate the learning process but also to instill appreciation for local cultural symbols through the use of Batak Toba's traditional ornament, *gorga*.

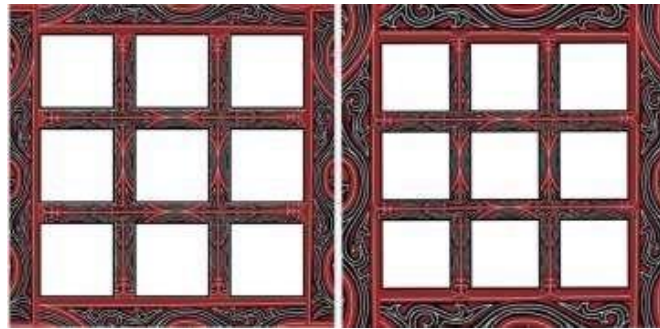


Figure 2. Opisada Game Board

As shown in the figure above, the *Opisada* game board is made of cardboard or wood, measuring 18×18 cm, with a sticker depicting the *gorga* motif. This motif was chosen to represent the target regional identity. *Gorga* is a traditional Batak motif that symbolizes truth, as believed by the Batak community. The *Opisada* game board consists of two sides: the left side holds square tiles numbered 1 through 9, each 4×4 cm in size, while the right side displays the answers. There are dividers on the board to separate the left and right sides. The design of the *Opisada* book and game board incorporates elements of local cultural aesthetics through the use of traditional Batak Toba ornaments, particularly *gorga*, which has profound philosophical meanings. One of the main motifs used is *Gorga Simarogungogung*, an ornament commonly found in traditional Batak Toba houses. This motif resembles a gong and is visually inspired by ferns. Typically, *gorga* are placed on the front wall or on the eaves of the house. This symbol represents values of wealth, glory, prosperity, generosity, and kindness (Napitu, 2022). Additionally, the color choices in the *Opisada* design have symbolic meanings: red represents passion, strength, bravery, and rage (*Hagagoon*); white signifies purity, truth, and sincerity (*Habonaron*); while black reflects strong character, leadership, wisdom, and warmth (*Hahomion*) (Sianturi, 2022). Thus, the visual design of *Opisada* not only enriches the media's appearance but also strengthens the cultural context of the learning experience.



Figure 3. *Opisada* Animal Series Design

As a thematic learning media, *Opisada* consists of nine series, with each series containing nine questions in the form of illustrations. These images are designed to match their corresponding words in Batak Toba, located on the right side of the game board. All illustrations feature Batak Toba visual elements, including *gorga* motifs, thus not only introducing regional vocabulary but also serving as a medium for introducing high local cultural values. On the book cover, *Opisada* displays eight different colors, representing the ethnic diversity in North Sumatra, which consists of eight main ethnic groups. Symbolically, this design also reflects the long-term vision of developing *Opisada* as a tool for preserving the language and script of various ethnic groups, making it an inclusive and adaptive medium for Indonesia's multicultural context.



Figure 4. *Opisada* Book Cover Design

3.2. How to Play *Opisada*?

One *Opisada* package consists of one playing book and two game boards used as media for learning the Batak Toba language and script. The game is designed for two children sitting across from each other. Each game edition presents nine questions in the form of images covering topics such as animal names, colors, fruits, activities, and family greetings (e.g., Father, Mother, Brother, Sister, etc.). The questions are displayed on the left side of the game sheet, while the right side contains answers in the Batak Toba language. Players are asked to place the *Opisada* board on the question side, then arrange the numbered tiles sequentially from 1 to 9 on the left side. Afterward, the tiles are moved to the right side to match the correct answers. Once all tiles are arranged, players flip the tiles along with the frame as an indicator for evaluation. If the color sequence on the frame matches the color code on the answer key in the upper right corner, the answer is considered correct. After completing one series, the children are asked to answer a story-related question based on the theme of the series. The playing time can be adjusted by the guide based on the class or learning session conditions. With this fun and educational approach, *Opisada* encourages active learning through direct interaction with a media rich in language and local cultural values.

3.3 Implementation and Evaluation of *Opisada* Learning Media

The implementation phase began with socialization activities aimed at introducing *Opisada* as an educational learning media and game for the preservation of the Batak Toba language. This socialization was held on July 31, 2023, at SDN 173525 Balige, Toba Regency. During this session, the team introduced how *Opisada* works and emphasized the urgency of preserving regional languages as part of cultural identity that must be maintained. The socialization served as an essential first step in building understanding and enthusiasm for the media to be used.



Figure 5. *Opisada* Socialization at SDN 173525 Balige

On August 1, 2023, the main activity was carried out at the partner school with the active involvement of students and teachers. The activity began with an introduction session to create a fun learning atmosphere, followed by the administration of a pre-test to assess the students' initial knowledge of Batak Toba language. Afterward, a brief training was provided to the teachers on how to use *Opisada* media, including the technical explanations of the game, so that the media could be continuously utilized beyond the research activities. During the game, students were grouped into pairs, with each pair using one game book. Each session asked participants to match images and Indonesian words with their corresponding Batak Toba terms within five minutes. A competitive aspect was introduced by declaring the fastest and most accurate participants as winners, to encourage active and participatory learning motivation. Direct guidance was provided by the implementation team to ensure that the game proceeded according to the design and learning objectives.

Figure 6. *Opisada* Activity Implementation

After all game sessions were completed, an evaluation phase was conducted to assess the impact of using *Opisada* on students' knowledge improvement. The evaluation was carried out through a post-test consisting of 20 translation questions from Indonesian to Batak Toba. Students were given ten minutes to complete the test. This test followed the same format and structure as the pre-test, allowing for a direct comparison of results. The aim of this evaluation was to identify students' progress after the intervention through the *Opisada* educational game.

The pre-test and post-test results were analyzed using the normalized gain (N-gain) technique to assess the level of improvement in students' language skills. The N-gain calculation was performed by comparing the pre-test and post-test scores against the maximum possible score. Based on data obtained from 20 students, the average pre-test score was 4.05 and increased to 13.35 in the post-test. The average N-gain value of 0.592 indicates a moderate improvement in language proficiency. This finding suggests that the use of *Opisada* as a learning media has a positive impact on strengthening vocabulary and Batak Toba language skills among elementary school students.

Table 1. Pre-Test and Post-Test Results

No.	Name	Pre-Test Score	Post-Test Score	N-Gain
1	Andira Napitupulu	4	11	0.438
2	Bintang Pasaribu	5	15	0.667
3	Bonifasius Panjaitan	2	10	0.444
4	Christine Tambunan	3	15	0.706
5	Cintya Siahaan	5	14	0.600
6	Darius Napitupulu	3	14	0.647
7	Desima Panjaitan	6	15	0.643
8	Ebenezer Marpaung	4	10	0.375
9	Febriani Siburian	7	19	0.923
10	Felix Situmorang	3	11	0.471
11	Gracella Sipahutar	5	16	0.733
12	Grachio Pandiangan	2	10	0.444
13	Jeges Napitupulu	3	9	0.353
14	Kezia Ambarita	6	16	0.714
15	Lady Haraito	4	12	0.500
16	Martin Purba	4	13	0.563
17	Michelle Siahaan	2	10	0.444
18	Nurhidayah Simatupang	5	16	0.733
19	Paulus Silitonga	3	15	0.706
20	Stephanus Manullang	5	16	0.733
Average		4.05	13.35	0.592
Maximum		7	19	0.923
Minimum		2	9	0.353

$$Gain = \frac{S_{posttest} - S_{pretest}}{S_{maks} - S_{pretest}}$$

Ket:

$S_{posttest}$ = Post-test score

$S_{pretest}$ = Pre-test score

S_{maks} = Maximum score

Table 2. N-Gain Classification

Response Score	Response Criteria
$g > 0,7$	High
$0,30 \leq g \leq 0,7$	Moderate
$g \leq 0,3$	Low

(Meltzer, 2003:153)

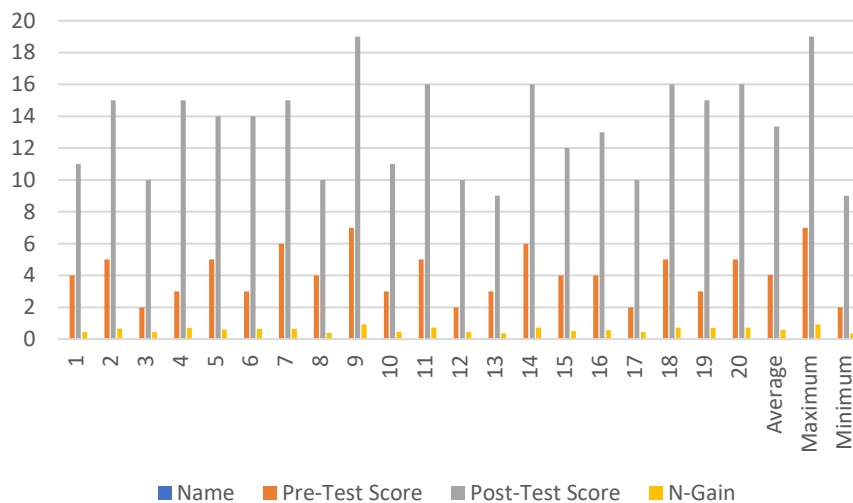


Figure 7. Pre-Test and Post-Test Results

4. Discussion

Implementing the *Opisada* linguistic activity by the Language Ambassadors of North Sumatra in 2023 received a very positive response from the partners. The school reported that *Opisada* could be a learning media for local content in the Batak Toba language and script. Similarly, local community leaders and a hotel owner in Toba Regency stated that *Opisada* could serve as both a game and a learning tool that could increase knowledge and reading interest in the Batak Toba language and script. They committed to helping disseminate information about *Opisada*. The partners expressed hope that future editions of *Opisada* would be developed.

The pre-test and post-test results in this activity were analyzed using IBM SPSS Statistics 26. A normality test was conducted first to determine the data distribution of a variable. The test results showed that the data were normally distributed. After testing, the pre-test and post-test results were analyzed using the normalized gain (N-gain) method. The pre-test and post-test scores showed an average pre-test score of 4.05, meaning that out of 20 students, the average number of correct answers was 4. In contrast, the average post-test score was 13.35, indicating that the average number of correct answers was 13. This demonstrates that after playing *Opisada*, there was a significant improvement in students' knowledge of the Batak Toba language.

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Nilai Pretes	.168	20	.140	.938	20	.216
Nilai Posttest	.172	20	.121	.921	20	.105

a. Lilliefors Significance Correction

Figure 8. Data Normality Test

The improvement in students' abilities was measured using the normalized gain (N-gain) method. Based on the calculation, the average pre-test score was 4.05, meaning that, on average, students could only answer four questions correctly out of twenty before participating in the activity. After implementing the *Opisada* media, the average post-test score increased to 13.35, showing that, on average, students could answer more than thirteen questions correctly. The difference between the two scores resulted in an N-gain value of 0.592, which falls into the moderate improvement category. Additionally, the test results concluded that there was a significant difference between the pre-test and post-test results. Therefore, the *Opisada* game positively improved Batak Toba language and script knowledge among elementary school students at SDN 173525 Balige, Toba Regency, North Sumatra. This shows a significant improvement in students' understanding of basic vocabulary in Batak Toba after participating in this educational game-based learning. Thus, these quantitative analysis results empirically support the qualitative findings regarding the positive responses from the partners. This finding strengthens the position of *Opisada* as a prototype of locally-based cultural learning media that not only enhances students' cognitive aspects but also contributes to strengthening cultural identity and the preservation of regional languages. The success of *Opisada* opens up significant opportunities for developing similar models in other regions in Indonesia that require regional language preservation.

4.1. SWOT Analysis of *Opisada* Media

Opisada, a gamified regional language learning media, has been designed to aid the revitalization of the Batak Toba language and enhance language skills among elementary school students. The media combines elements of traditional games with engaging designs that attract children. However, like any innovation, *Opisada* has strengths, weaknesses, opportunities, and threats that need to be analyzed to understand its potential and challenges in the context of regional language learning. The following is a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis of *Opisada*, alongside a comparison with other learning media available in the market.

Strengths:

1. Official Institutional Support: *Opisada* is supported by an official government institution, the Language Center of North Sumatra, which gives it credibility and broader access for implementation in various schools.
2. Solution for Language Revitalization: *Opisada* offers an innovative solution to address the challenges of regional language revitalization, specifically Batak Toba, which is increasingly marginalized among the younger generation.
3. Usable as Educational Media in Schools: This media is suitable for extracurricular use and integrates well into school curricula, supporting local content education.
4. Attractive Design: With high-contrast images and colors, *Opisada* captures children's attention, making it more appealing compared to more rigid educational materials.
5. Enhances Quick Thinking Skills: *Opisada* teaches children to think quickly and accurately through games that require fast and correct decision-making, enhancing cognitive skills.
6. Traditional Game Approach: Using a traditional game design, *Opisada* becomes a desirable option for children, connecting them with familiar local games while still serving an educational purpose.

Weaknesses:

1. Requires Large-Scale Printing of Prototypes: *Opisada* requires large-scale printing of prototypes to reach various stakeholders, which incurs significant costs and time.
2. Larger Size Than Common Games: Compared to most common educational games, *Opisada* is larger and requires special space for storage and transportation, posing logistical challenges.

Opportunities:

1. Unique Learning and Gaming Media: *Opisada* is the only school learning and gaming media for children that uses a box-moving and color-matching method, featuring nine regional languages in one book. This unique feature adds value as an integrated and distinct media.
2. Addressing Regional Language Preservation: By combining language learning with gameplay, *Opisada* provides a potential solution for preserving and revitalizing regional languages at risk of extinction.
3. Development in Other Regional Languages: There is a significant opportunity to expand *Opisada* to include various other regional languages, allowing it to be produced in different editions to support linguistic diversity in Indonesia.
4. Potential for Patent Protection: *Opisada* has the potential to be patented, providing intellectual property protection and ensuring the security of its innovative ideas.

Threats:

1. Emergence of New Competitors: New products that produce similar educational games could emerge, potentially challenging *Opisada*'s position in the market.
2. Development Requires Significant Resources: The development of *Opisada* requires substantial time, effort, and cost, which may be a constraint for its long-term sustainability and expansion.

4.2. Comparison with Other Learning Media

Compared to other learning media, *Opisada* offers a more integrated approach, emphasizing local culture. Many other learning media focus on digital content or technology-based applications, while *Opisada* stands out by offering a physical game-based learning experience that is both simple and effective. Digital language apps like Duolingo or Babbel use highly advanced technology to teach languages. However, they may not provide as strong a cultural connection as *Opisada*, which integrates Batak Toba cultural elements directly into the game. For example, Duolingo provides gamified language learning, but it focuses more on international languages and lacks emphasis on local cultural relevance. In contrast, *Opisada* integrates Batak Toba cultural elements within the game, making it more relevant for learning regional languages. This cultural integration provides a higher value in the context of regional language preservation compared to global applications. However, digital media like Duolingo and Babbel offer higher convenience in terms of accessibility and flexibility in usage time, whereas *Opisada* requires physical infrastructure and bulk printing, limiting its distribution and accessibility.

With this analysis, it can be concluded that *Opisada* offers an innovative approach that blends traditional game elements with in-depth regional language learning. Despite facing challenges related to development and distribution, *Opisada* has significant potential as a tool for regional language revitalization, especially with the opportunity to expand into other regional languages.

5. Conclusion

This study demonstrates that *Opisada* (Olah Pikir Bahasa Daerah) is an innovative and effective media tool for revitalizing the Batak Toba language among elementary school students. By incorporating gamification into language learning, *Opisada* successfully enhanced students' interest and proficiency in the Batak Toba language, as evidenced by the significant improvement in their post-test scores. The interactive, game-based format engages students and fosters a deeper connection to local cultural values by including traditional Batak Toba elements in the game design.

The main contribution of this innovation lies in its ability to bridge the gap between modern educational practices and the preservation of regional languages. Using a fun, educational approach that integrates local wisdom, *Opisada* helps address the urgent need for regional language revitalization, particularly among younger generations who risk abandoning their native languages in favor of more dominant ones. Through this method, *Opisada* offers a scalable model for preserving other regional languages in Indonesia and beyond, demonstrating the potential of gamification as an effective educational tool.

Moreover, *Opisada*'s positive impact on student engagement and language learning outcomes suggests that similar media models can be developed to support the preservation and revitalization of other regional languages, thus contributing to the broader cultural sustainability movement in Indonesia's education system. However, further research and development are needed to explore how *Opisada* can be adapted for digital platforms, making it more accessible and relevant in the digital age.

6. Implications

While *Opisada* demonstrates clear potential, several key implications for educators, media developers, and policymakers could support the continued development and implementation of such innovative learning tools.

1. For Educators:
Educators are encouraged to incorporate *Opisada* and similar media into their classrooms as part of a broader effort to integrate local content into the curriculum. Educators can foster deeper engagement among students and increase their understanding and appreciation of regional languages using locally relevant materials. Furthermore, educators should explore ways to combine traditional teaching methods with innovative approaches like gamification to cater to diverse learning styles.
2. For Media Developers:
Media developers are urged to innovate by creating educational tools that blend technology with traditional elements. Developing educational games, especially those that include local cultural content, can be a key strategy for revitalizing regional languages. There is a significant opportunity to scale *Opisada* and adapt it for other regions and languages in Indonesia, creating a series of localized educational games that target the preservation of cultural identity across the nation.
3. For Policymakers:
Policymakers should consider supporting initiatives that promote the use of local content in schools. Funding for developing and distributing educational media like *Opisada* can be an effective strategy to combat the decline of regional languages. Additionally, policies that incentivize the creation of educational content based on local culture can encourage the preservation of linguistic diversity in Indonesia. Collaboration with educational institutions, language centers, and media developers will be crucial in scaling these efforts.

7. Future Direction.

Although *Opisada* has proven effective in enhancing Batak Toba language skills among students, there is still significant room for further development to expand its impact and ensure its sustainability. Some potential directions for future development are as follows:

1. Digitalization and Multimedia Platforms
A major step forward would be developing a digital version of *Opisada*. Given the increasing reliance on digital technology in education, a mobile or web-based application version of *Opisada* would allow students to access learning materials anytime and anywhere. Digitalization would expand the reach of this media, making it more accessible to a wider audience and enabling distance learning. Additionally, interactive features such as audio, video, and quizzes could enrich the learning experience for students.
2. Development for Other Regional Languages
The success of *Opisada* in revitalizing the Batak Toba language opens up the opportunity to adapt this learning model for other regional languages in Indonesia. In the context of Indonesia's linguistic diversity, *Opisada* could be developed as a learning tool for other regional languages, such as Acehese, Minangkabau, or Dayak. The gamified approach, integrating local culture, could be applied to help preserve various regional languages across Indonesia.
3. Collaboration with Government and Stakeholders
To further expand the impact of *Opisada*, further collaboration with the government, educational institutions, and local media developers is essential. Policy support from the government that promotes regional language preservation through educational technology will accelerate the implementation of media like *Opisada* in schools and communities. Funding for further development and distribution of the media must also be a focus, particularly in reaching remote areas.
4. Integration into the National Education Curriculum
Integrating *Opisada* into the national education curriculum as part of regional language education could be a critical next step. Adding modules or lesson series based on *Opisada* into primary and secondary education curricula could support more students in learning and appreciating their regional languages. This would also motivate more schools to incorporate *Opisada* into their language teaching practices.
5. Enhancement of Interactivity and Social Learning
Developing competitive or collaborative features in *Opisada*, such as tournaments or collaboration between different schools, would be possible to further enhance student engagement. Group-based or competitive language learning could add a social dimension to the learning process and increase student participation.
6. Ongoing Evaluation and Further Research

Further research is needed to evaluate the effectiveness of *Opisada* in broader contexts, such as involving larger groups or long-term studies. This research could help to understand the long-term impact of *Opisada* in preserving Batak Toba and other regional languages. Collecting qualitative and quantitative data from various locations would provide new insights into the challenges and opportunities of developing gamified educational media.

By directing *Opisada* towards digital development, wider collaboration, and integration into the national curriculum, it is expected that this media will not only continue to evolve but also make a significant contribution to regional language preservation efforts in Indonesia.

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9. Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this research. All contributions to the study were made to advance knowledge without any influence from external financial, professional, or personal interests.

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