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Development of Poketun Application (Augmented Reality-Based Pocket Book of *Pantun*) to Improve Children's Literacy Skills and Literary Appreciation

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Abstract: This study aims to develop Poketun (Pocket Book *Pantun* Based on Augmented Reality) as an interactive digital medium to enhance elementary school students' reading literacy and literary appreciation. The research adopted a research and development (R&D) design with a qualitative approach, based on the 4D development model (Define, Design, Develop, Disseminate). Data were collected through observation, interviews, documentation, and expert validation, and were subsequently analyzed descriptively. The results revealed that students' initial reading literacy and *pantun* appreciation were still low; most students merely memorized *pantun* without understanding their aesthetic and moral values. The Poketun application was then designed with thematic *pantun* content, AR visualization, audiovisual features, and interactive tools that support both reading and composing *pantun*. Expert validation indicated that the application was feasible to use, with suggestions for improvement such as simplifying navigation, adding more diverse *pantun*, and providing offline access. Classroom implementation showed positive responses: students were more enthusiastic, motivated to read, and better able to grasp the meaning of *pantun*. Teachers also reported that the application enriched learning variation and reduced students' boredom. The novelty of this study lies in integrating AR with literary learning, in contrast to previous studies that mostly focused on science or mathematics. Theoretically, the study expands the discourse on reading literacy and children's literary appreciation in digital contexts, while practically, it offers innovative learning media and contributes to preserving local cultural heritage.

Keywords**:** *Augmented reality; literary appreciation; pantun; Poketun, reading literacy*

Abstrak: Penelitian ini bertujuan untuk mengembangkan Poketun (*Pocket Book* Pantun Berbasis *Augmented Reality*) sebagai media digital interaktif untuk meningkatkan literasi membaca dan apresiasi sastra siswa sekolah dasar. Penelitian ini menggunakan metode *research and development* (R&D) dengan pendekatan kualitatif, mengadaptasi model pengembangan 4D (*Define, Design, Develop, Disseminate*). Data dikumpulkan melalui observasi, wawancara, dokumentasi, dan validasi ahli, kemudian dianalisis secara deskriptif. Hasil penelitian menunjukkan bahwa kemampuan awal literasi membaca dan apresiasi pantun siswa masih rendah; sebagian besar siswa hanya menghafal pantun tanpa memahami nilai estetika dan moral yang terkandung di dalamnya. Aplikasi Poketun kemudian dirancang dengan konten pantun tematik, visualisasi AR, fitur audiovisual, serta alat interaktif yang mendukung kegiatan membaca dan mencipta pantun. Validasi ahli menunjukkan bahwa aplikasi ini layak digunakan dengan beberapa saran perbaikan seperti penyederhanaan navigasi,

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penambahan variasi pantun, dan penyediaan akses *offline*. Implementasi di kelas menunjukkan respons positif: siswa lebih antusias, termotivasi untuk membaca, dan lebih mampu memahami makna pantun. Guru juga melaporkan bahwa aplikasi ini memperkaya variasi pembelajaran dan mengurangi kebosanan siswa. Kebaruan penelitian ini terletak pada integrasi teknologi Augmented Reality dengan pembelajaran sastra, berbeda dengan penelitian sebelumnya yang umumnya berfokus pada bidang sains atau matematika. Secara teoretis, penelitian ini memperluas wacana tentang literasi membaca dan apresiasi sastra anak dalam konteks digital, sedangkan secara praktis, penelitian ini menawarkan media pembelajaran inovatif sekaligus berkontribusi dalam pelestarian warisan budaya lokal.

Kata Kunci: *Apresiasi sastra; augmented reality; literasi membaca; pantun; Poketun*

Introduction

Literary works have long been recognized as a medium for character education rich in moral, social, and cultural values. Through literature, students can learn to understand life, broaden empathy, and foster reflective attitudes. This aligns with Boer & Fischer (2013) view that developing positive attitudes toward one's own culture as well as that of others is essential for both personal and social development. In the Indonesian context, which is rich in cultural diversity, appreciation of literary works—both classical and modern—can serve as an educational instrument in building national identity.

One form of literature that is close to society is the *pantun* (traditional Malay quatrain). *Pantun* is not only an old form of poetry but also a medium of communication, cultural reflection, and entertainment rich in meaning (Rodearni & Harahap, 2025). Through *pantun*, students can learn about local wisdom, love of the homeland, and respect for ancestral traditions. Interestingly, in 2020, UNESCO designated *pantun* as an intangible cultural heritage shared by Indonesia and Malaysia (UNESCO, 2022). This designation serves as both a reminder and an encouragement that preserving *pantun* is essential, especially in the era of globalization where young generations' interest in local traditions is increasingly eroded.

Reading literacy is a fundamental competence that students must master in order to adapt to the demands of modern times. Literacy, however, does not only refer to the technical ability to read texts but also to the appreciation of meaning, content, and values contained within them. Literary appreciation, particularly of pantun, can help students develop critical, imaginative, and creative thinking skills.

According to the *Programme for International Student Assessment* (PISA) in 2018, Indonesian students' reading ability is still relatively low. Indonesia ranked 74th out of 79 participating countries, with an average score of 371, far below the Organisation for Economic Co-operation and Development (OECD) average of 487 (Esti et al., 2023). This indicates that reading literacy remains a serious issue in Indonesian education. In fact, literacy is the foundation for lifelong learning.

Integrating reading literacy with *pantun* appreciation offers a highly relevant solution. *Pantun*, with its simplicity, rhythm, and closeness to daily life, has great potential to foster reading interest while strengthening students' cultural identity. Thus, literary reading skills not only equips students with cognitive skills but also builds cultural awareness.

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The Covid-19 pandemic has brought major changes to education. Based on the Ministry of Education and Culture's Circular No. 4 of 2020, teaching and learning activities were shifted to a *Learning from Home* (BDR) system as a measure to prevent the spread of the virus. The main principle of BDR is to allow students to access learning materials anytime and anywhere without spatial and temporal limitations (Sekretaris Jenderal Kemendikbud RI, 2020).

In practice, however, several challenges emerge. United Nations Children's Fund (2020), through a survey of 3,949 student respondents in Indonesia, identified several problems: (1) 38% of students reported lacking sufficient guidance from teachers; (2) 35% faced internet connectivity issues; (4) 7% did not own adequate devices, and (5) 4% could not access online learning applications.

These findings highlight that while online learning provides flexibility, it also poses barriers that reduce its effectiveness. This condition calls for innovative learning media that not only deliver material but also sustain student motivation and engagement. Without innovation, online learning risks fostering boredom, fatigue, and even diminishing learning quality.

Koesnandar (2020) argues that effective learning media should allow for reuse (reusing materials), reshare (sharing content), and recreate (remaking content according to needs). Such media not only enhance flexibility but also strengthen student interaction with learning resources. Similarly, Anshori (2018) emphasizes that teachers' creativity in selecting media significantly influences learning quality. Teachers cannot merely rely on conventional methods; they must optimally utilize information technology to make learning more effective. Interactive media motivate students, make them feel valued, and create enjoyable learning experiences. One promising technology is Augmented Reality (AR), which blends real and virtual worlds to provide immersive learning. AR has been shown to enhance student engagement, reduce boredom, and make abstract materials more concrete.

Recent research suggests that augmented reality (AR) is increasingly relevant for literary and cultural learning, not only as a visual medium but as a pedagogical technology that mediates emotional engagement, narrative comprehension, and inclusive access; in higher education contexts, AR has been shown to significantly improve students' emotional literacy and achieve excellent perceived usability (Pamungkas, Purwoko, et al., 2025), while in inclusive settings—involving students with dyslexia, autism, and visual impairments—AR designed with Universal Design for Learning principles improved literary comprehension scores and learning engagement (Pamungkas, Paresti, et al., 2025). Findings on AR-based mobile game learning also indicate equitable increases in engagement and performance across needs, which have implications for adaptation to the practice of teaching literary genres such as poetry and oral traditions (Mengmeng et al., 2025). From the research landscape perspective, a systematic review maps trends, AR types, levels, and methodological approaches that can serve as a reference for designing cross-disciplinary studies in the literary-cultural domain (Muhaimin et al., 2023), and a

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study on literary learning in the IR4.0 era emphasizes the need for a combination of pedagogy, immersive technology (VR/AR), and cultural sensitivity to bridge the real-virtual world in literature teaching (Veeramuthu et al., 2023).. Bojiah (2022) showed that Moodle-based e-learning improved material accessibility but did not integrate local culture. Lai et al (2019) examined AR in science learning and reported that students better understood scientific concepts through AR visualization, yet this remained limited to science subjects, not literary reading skills. From these comparisons, it is clear that earlier research has focused mainly on improving instructional effectiveness through digital media, while few have examined AR for literary reading skills, especially *pantun* as both a cultural heritage and a medium for enhancing reading interest.

The novelty of this study lies in integrating literary reading skills with AR technology in *pantun* learning. While previous studies emphasized science education or generic e-learning platforms, this research offers a unique approach that combines local wisdom (*pantun*) with modern technology (AR). With this approach, students are expected not only to strengthen their reading literacy but also to cultivate pride in their cultural heritage. Furthermore, AR makes *pantun*, which is usually presented only as text, more lively, engaging, and interactive. This offers a solution to the challenges of online learning during the pandemic and beyond, which can otherwise be monotonous when relying solely on conventional methods.

This study aims to analyze the importance of reading literacy and *pantun* appreciation in character development, to develop an AR-based *pantun* learning medium that is interactive and relevant to the digital learning era, and to test its effectiveness in improving students' reading interest, literary appreciation, and engagement in online learning. The urgency of this study stems from Indonesia's low reading literacy (PISA, 2018), various technical and pedagogical challenges in online learning as reported by UNICEF (2020), and the scarcity of prior research that specifically integrates AR with literary reading skills, particularly *pantun*. Therefore, this research is expected to provide significant contributions not only to the development of educational theory and practice but also to the strategic preservation of national culture through creative and contextual educational innovation.

The development of information and communication technology (ICT) has had a profound impact on education, influencing not only learning processes but also methods and outcomes. Munir (2017) emphasizes that ICT will remain relevant in the long run because it drives fundamental changes in learning activities. While teaching and learning were previously dominated by face-to-face interactions, today's education has shifted toward more flexible and adaptive digital learning. This shift is not merely a technical phenomenon, but rather a necessity shaped by globalization, the knowledge society, and labor market demands for productivity and competitiveness. Thus, ICT functions as a key driver of educational transformation, affecting not only content delivery but also how learners interact, collaborate, and construct knowledge.

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The use of computers, the internet, and various educational applications has become commonplace at nearly all educational levels, from primary schools to universities. ICT enables more open, interactive, and multidisciplinary learning, unrestricted by time or place. Educators and students can now access global learning resources, engage in cross-regional or cross-national discussions, and utilize digital platforms to enrich their learning experiences. According to Pureta (Pureta, 2015), the integration of digital technology into learning promotes lifelong learning since materials can be accessed anytime and adapted to individual needs.

One form of digital innovation that has gained increasing prominence is Augmented Reality (AR). This technology integrates real-world environments with virtual objects in the form of visuals, audio, and animations in real time, offering more immersive learning experiences. In education, AR makes abstract concepts more concrete, fosters motivation, and enhances active student engagement (Mustaqim, 2016). Through AR, printed books or conventional materials can be "brought to life" with additional three-dimensional visual information, enabling students not only to read but also to watch simulations, listen to explanations, and interact directly with the material. With these characteristics, AR has the potential to become a major breakthrough in digital learning that demands innovation, creativity, and alignment with the learning styles of Millennials and Generation Z.

Augmented Reality (AR) is a technology that merges the real world with virtual elements in real time. The term was first introduced by Caudell and Mizell (1992), describing AR as a technology capable of "augmenting" the visual field with relevant digital information. In education, AR is used to create immersive learning experiences that integrate text, audio, visuals, animations, and even three-dimensional simulations (Zakir et al., 2017).

According to Mustaqim (2016), AR effectively stimulates student motivation because it combines imagination with reality, creating interactive experiences. This aligns with the general characteristics of learning media, which should foster critical thinking, combat boredom, and facilitate efficient learning beyond temporal and spatial limits. Research by Wulan and Rahma (2020) showed that the use of AR in elementary school learning received positive responses not only from students but also from teachers and parents, as it was both enjoyable and educational.

Furthermore, Yuliono et al (2018) emphasized that AR incorporates multimedia elements—such as text, audio, video, and animation—enabling students not only to read but also to watch visual and audio simulations that enhance comprehension. Thus, AR has the potential to serve as an innovative, interactive, and relevant learning medium for the digital generation.

Reading literacy in the digital era has undergone significant transformation alongside the rapid advancement of ICT. Previously, reading was limited to print formats such as books, newspapers, or magazines. Today, however, reading encompasses a wide range of digital media, including online news portals, e-books, blogs, digital magazines, social networking content, and internet-based forums (Kurata

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et al., 2016). This transformation presents both opportunities and challenges. On one hand, learners have greater access to diverse reading materials without spatial or temporal constraints. On the other hand, they are required to develop more complex digital literacy skills, such as the ability to evaluate credible information, comprehend texts in multiple formats, and apply this knowledge in both academic and personal contexts.

Reading literacy is not merely a technical skill of decoding letters and words, but also involves emotional, cognitive, and motivational engagement. Strong reading engagement enables individuals not only to understand content but also to appreciate, internalize, and relate readings to personal experiences. Within the framework of Self-Determination Theory (Ryan & Deci, 2024), reading engagement is driven by intrinsic motivation—the internal drive to enjoy reading itself. When intrinsic motivation is fostered, learners tend to be more active, enthusiastic, and consistent in making reading a part of their daily lives.

Good reading literacy is strongly associated with academic achievement. Students with strong literacy skills are generally better at understanding lessons, thinking critically, and producing creative work. Moreover, literacy plays an important role in shaping personality and social attitudes, since through reading, students learn moral values, cultural diversity, and empathy.

In the context of this study, reading literacy is understood as a combination of technical reading skills and affective engagement. This means literacy is not limited to comprehension but also involves valuing texts, connecting them to real-life experiences, and using them for academic and personal purposes. With this perspective, enhancing reading literacy through innovative media such as the AR-based Poketun application is expected to provide a more engaging, contextual, and digital-native-appropriate approach to learning.

Children's literary appreciation is defined as the recognition and valuing of literary works, beginning from the processes of introduction, comprehension, interpretation, and reflection, culminating in enjoyment (Santoso, 2003). This process demands both intellectual and emotional engagement, meaning it goes beyond cognitive understanding of text to include affective awareness of the human values embedded within literature. Thus, literary appreciation helps develop children's critical thinking, emotional sensitivity, and reflective attitudes toward life experiences conveyed in literary works.

Through literary appreciation, children can cultivate empathy by engaging with characters, events, and conflicts in stories, as recent scholarship on literature and empathy indicates (Denham, 2024). Literature also serves as a vehicle for transmitting moral values and familiarizing children with cultural diversity in classroom practice (Adam et al., 2019). In the Indonesian context, *pantun*—simple, concise, and meaning-rich—has been shown to convey politeness, communal values, and cultural wisdom, supporting character education aims (Martono & Dewantara, 2024). Building on this evidence, I argue that centering *pantun*-based appreciation activities—ideally supported by interactive media—offers a

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culturally grounded pathway to cultivate empathy and character while sustaining children's engagement with reading.Additionally, literary appreciation nurtures children's imagination and creativity. When appreciating *pantun* or stories, children are not only interpreting text but also learning to imagine, reinterpret, and even create simple literary works. This process trains critical thinking and self-expression skills, which are beneficial for academic and everyday life. Therefore, children's literary appreciation is an integral part of education that emphasizes not only cognitive but also affective, social, and cultural dimensions.

Previous studies have demonstrated the effectiveness of AR as an educational medium in various fields. Mustaqim (2016) highlighted its role in increasing learning motivation; Wulan and Rahma (2020) tested AR applications in primary schools with positive results; and Yuliono et al (2018) emphasized its advantage in presenting multimedia-based material that enhances comprehension. However, these studies largely focused on science, mathematics, or general subjects, rather than literary reading skills.

Meanwhile, research on reading literacy and literary appreciation has often relied on conventional methods or text- and video-based e-learning (Farniati et al., 2025). Few studies have specifically explored the integration of AR with literary reading skills, particularly *pantun* as part of Indonesia's cultural heritage (Abidin et al., 2023; Ramtohul & Khedo, 2024; Wulandari et al., 2025).

The novelty of this study lies in the development of Poketun—an Augmented Reality–based *pantun* pocket book—that integrates reading literacy and literary appreciation with immersive AR technology. Beyond delivering conceptual knowledge about *pantun*, Poketun offers interactive examples, guided recitation, and scaffolded composition tools so learners can read, perform, and create *pantun* within a single digital environment. Designed around thematic content, audiovisual supports, and AR visualizations, the application aims to enhance students' reading literacy while deepening their appreciation of local literature. In doing so, Poketun provides an innovative, culturally grounded solution that aligns with the learning preferences of Millennial and post-pandemic digital generations, positioning AR not merely as a display medium but as a pedagogical bridge between textual understanding, performance, and creative production.

Research Method

This study employed a research and development (R&D) approach with a qualitative descriptive approach. The main objective was to develop a product in the form of the Poketun application (Pocket Book of *Pantun* Based on Augmented Reality) and to gain an in-depth understanding of its use in improving children's reading literacy and literary appreciation. The 4D development model—Define, Design, Develop, Disseminate (Thiagarajan et al., 1974) was selected because it aligns with our goal of producing a usable AR-based learning medium through clear, auditable stages: Define (user/baseline profiling), Design (objectives, content maps, interaction flows, AR specs), Develop (prototyping with expert validation and small-group

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trials), and Disseminate (classroom materials and teacher guidance). Compared with Borg & Gall's R&D model, which outlines ten comprehensive steps and is often more resource-intensive for school-based media prototypes (Gall et al., 1996), the 4D approach is leaner and product-oriented; and relative to design-based research (DBR), which emphasizes extended, theory-building cycles across authentic classrooms and typically entails longer timelines (Anderson & Shattuck, 2012), 4D offers a practical balance of rigor, iterative refinement, and feasibility for developing and classroom-testing Poketun.

The Define stage was carried out by identifying the initial conditions of *pantun* learning in elementary schools through classroom observations, teacher interviews, and the analysis of teaching documents. The Design stage included preparing the blueprint of the Poketun application by selecting thematic *pantun*, designing AR visualizations, and developing expert validation instruments. The Develop stage involved creating a prototype of the application, validation by media experts and content experts, and limited trials with fifth-grade students to observe responses from both students and teachers. The final stage, Disseminate, consisted of limited implementation, reflection on results, and dissemination of findings through reports and scientific publications.

The research subjects consisted of six ninth-grade students (S1–S6) and one Indonesian language teacher (G1) at MTS As-Sa'adah Sukasari, Sumedang, who were selected using purposive sampling based on the following criteria: (a) actively participating in *pantun* learning, (b) willing to participate, and (c) obtaining the necessary approval/permission. Characteristics collected included gender, age, device access, prior experience with *pantun* and AR, and early reading literacy level. Participant identities were anonymized (codes S1–S6; G1), and all procedures followed the ethical principles of educational research (informed consent, data confidentiality)., selected purposively. The site was chosen based on the representation of public schools and the researcher's accessibility.

Data collection was conducted through participant observation, in-depth interviews, document analysis, and field notes. Observations were used to examine student interactions while using Poketun in *pantun* learning.

Interviews with students and the teacher were conducted using a semi-structured interview guide. The guide covered four focus areas: (1) usability and access (e.g., "How easy was it to navigate Poketun? What obstacles did you face—devices, connectivity?"); (2) engagement and motivation (e.g., "In what ways did Poketun make you more/less interested in reading and composing *pantun*?"); (3) learning and appreciation (e.g., "What did you understand about *pantun's* structure, aesthetic, and moral values after using the app?"); and (4) feature evaluation and suggestions (e.g., "Which AR features—3D visualization, audio, recitation—helped most, and what should be improved?"). Document analysis focused on the application's thematic *pantun* materials—text (wording, sampiran–isi structure, diction), audio (recitation clarity, pace, pronunciation), images/illustrations, AR 3D assets and animations, and other

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interactive/multimedia elements—evaluating each for content accuracy, cultural appropriateness, alignment with learning objectives, readability/usability, and technical quality. while field notes were used to record important phenomena emerging during the learning process.

Data analysis followed the interactive model of (Miles et al., 2014), consisting of data reduction, data display, and conclusion drawing. Data reduction was carried out by selecting relevant information, data display was organized into descriptive narratives, and conclusions were drawn based on emerging patterns and key findings. Data validity was ensured through triangulation of techniques (comparing findings from observations, interviews, and document analysis) and peer discussions.

Through this approach, the study not only produced the Poketun application as an educational product but also generated deeper insights into how the medium was utilized, how students and teachers responded to it, and how it contributed to enhancing reading literacy and literary appreciation among elementary school students.

Result and Disscussion

Initial Condition of Reading Literacy and *Pantun* Appreciation (Define Stage)

The define stage in this study aimed to identify the initial conditions of *pantun* learning, particularly regarding students' reading literacy and literary appreciation in elementary schools. Based on classroom observations in a fifth-grade class at a public elementary school in Bandung Regency, several fundamental issues were identified, indicating that students' reading literacy levels remained low. When asked to read several *pantun*, most students read in a flat tone without appropriate intonation. Some even appeared reluctant to read aloud in front of the class due to a lack of confidence. This suggests that reading *pantun* was not yet perceived as an enjoyable activity but rather as a compulsory task to complete.

Findings from interviews with the Indonesian language teacher supported these observations. The teacher explained that most students had low motivation to read, especially traditional literary texts such as *pantun*. According to the teacher, students were more interested in reading digital texts, such as illustrated stories on social media or online comics, rather than *pantun*, which they considered "old-fashioned" and irrelevant to their lives. The teacher stated: *"When asked to read pantun, many students just recite the words without understanding the meaning. They prefer reading comics or stories with pictures"* (Interview, 2025).

This phenomenon can be explained through the theory of reading literacy proposed by Tyner (2014), which emphasizes that in the digital era, literacy goes beyond the technical ability to decode texts. It also encompasses emotional engagement, motivation, and the ability to understand and use readings for various purposes. In the context of elementary school students, reading literacy should involve engagement, where students not only read mechanically but also enjoy the activity and derive meaning from it. However, classroom conditions showed a clear gap between the ideal concept of literacy and the monotonous practice of *pantun* learning.

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Students' literary appreciation also appeared limited: during observations, when asked to explain the meaning of a simple *pantun*, many repeated the lines without interpreting its moral or cultural messages—e.g., a response such as "This *pantun* is about friends" without elaborating on mutual respect or maintaining good relationships. This pattern is consistent with reading frameworks showing that learners often remain at surface-level processing (locating/repeating information) rather than integrative/inferential interpretation when background knowledge, strategy use, or task supports are limited (Organisation for Economic Co-operation and Development, 2019). In literature education, deeper appreciation typically requires guided attention to symbolism, tone, and cultural context as well as opportunities to link texts to lived values (Zembylas, 2018); in the Indonesian context, studies on *pantun* also note that students may memorize forms without grasping embedded ethical and communal meanings unless teachers explicitly mediate the sampiran–isi relationship and its cultural wisdom (Martono & Dewantara, 2024). Taken together, limited cultural schema, vocabulary/figurative-language demands, and an emphasis on recall-oriented tasks likely contributed to students' difficulty in deriving the *pantun*'s deeper moral significance (Denham, 2024; Martono & Dewantara, 2024).

Literary appreciation is framed as an integrated cognitive–affective activity involving interpretation, emotion, imagination, and aesthetic evaluation within sociocultural contexts (Li, 2022).. In other words, appreciation is not merely about reading or memorizing but also about immersing oneself in the values contained in the text. This was further confirmed by a student's statement: *"I like reading funny pantun because it makes me laugh. But when the pantun is serious, I don't really understand what it means"* (Interview, 2025). This illustrates that students' appreciation of *pantun* was still shallow, focusing mainly on entertainment rather than deeper understanding of cultural and moral values.

These findings align with the 2018 PISA (Programme for International Student Assessment) results, which placed Indonesia at a low rank in reading literacy. According to the OECD report, Indonesian students scored below the OECD average in reading, showing that students generally struggle with comprehending, interpreting, and applying texts in everyday life. In this study, the national problem of reading literacy was mirrored in students' difficulty appreciating *pantun* as a local literary form.

Further interviews with students revealed differences in their interest in *pantun*. One student expressed: *"Pantun is hard because it has to rhyme. If I have to make one, I get confused about finding the words"* (Interview, 2025). Another added: *"I prefer if there are pictures or animations, so the pantun looks alive. If it's just text, I get bored quickly"* (Interview, 2025). These remarks show that students require more engaging visual stimuli to stay motivated in reading and appreciating *pantun*. This resonates with Mustaqim (2016), who emphasized that learning media that integrates the real and virtual worlds, such as Augmented Reality, can enhance students' motivation by

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stimulating imagination and emotional involvement.

Teacher limitations in utilizing media were also found to be a barrier. In interviews, the teacher admitted that *pantun* teaching had so far relied on conventional methods—reading from textbooks and asking students to repeat. The teacher noted: *"I usually only use the standard textbooks and the blackboard. I would like to try digital media, but limited time and skills make it difficult for me to innovate"* (Interview, 2025). This statement highlights the urgent need for more varied learning media aligned with technological developments, so teachers can present *pantun* in more engaging ways.

Taken together, these results suggest that students' baseline reading literacy and *pantun* appreciation were constrained by low motivation, shallow meaning-making, and limited media variety—patterns that align with recent work showing that, without strategic supports, learners tend to remain at surface-level processing rather than making inferences and evaluations during reading (Duke & Cartwright, 2021). In the Kurikulum Merdeka context, these gaps map onto key Profil Pelajar Pancasila (P5) dimensions—especially *Bernalar Kritis*, *Berkebinekaan Global*, *Berakhlak Mulia*, and *Kreatif*—which the AR-based Poketun targets by boosting motivation, scaffolding interpretation of sampiran–isi, and diversifying learning media to better meet P5 competencies.. When linked to Guthrie et al (2012) literacy theory, this condition shows that students lacked strong reading engagement, treating reading as a task rather than a meaningful or enjoyable activity. Meanwhile, based on Rogers (1991) theory of children's literary appreciation, students' ability to interpret and internalize literary values was still underdeveloped.

These conditions underscore the relevance of developing the Poketun application based on Augmented Reality. By leveraging digital technology, *pantun* can be presented not as static text but as interactive, visual, and contextual learning experiences. This approach bridges the gap between students' preference for visual media and the educational need to preserve and appreciate traditional literary forms such as *pantun*.

The define stage revealed a significant gap between the actual state of elementary students' reading literacy and literary appreciation and the ideal expectations set out in theories and educational policies. These gaps stemmed from students' low motivation, teachers' limited methods, and the minimal use of digital media. Thus, developing innovative learning media like the Poketun application is not only relevant but also urgent, ensuring *pantun* learning evolves from a mere formality into a meaningful and enjoyable literacy experience for students.

Design of the Poketun Media (Design Stage)

The design stage of this research focused on developing an innovative digital learning medium, namely the Poketun application (Pocket Book of *Pantun* Based on Augmented Reality). This design process was based on the initial findings (define stage), which revealed students' low motivation to read *pantun*, limited literary appreciation, and the lack of digital media utilization in *pantun* learning. Poketun was designed to address these

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needs by combining thematic *pantun* content, Augmented Reality (AR) visualization, audiovisual features, and interactive components tailored to the characteristics of students as digital natives.

The first step in designing the Poketun application was selecting *pantun* to serve as the main content. The *pantun* were chosen based on themes relevant to elementary students' lives, such as friendship, environment, learning, family, and love for the homeland. This selection was guided by pedagogical considerations that students would find it easier to understand and appreciate literature when the topics were connected to their daily experiences.

The Indonesian language teacher interviewed emphasized the importance of contextual themes, stating: *"If the themes are too far from children's lives, they find it hard to grasp the meaning. But if it's about friends, school, or playing, they understand more quickly"* (Interview, 2025). This Analyzing Ki Hajar Dewantara's Serat Sari Swara, the study identifies philosophical meanings and character-education values—such as religiosity, discipline, gratitude, solidarity, respect for teachers, sincerity, optimism, diligence, decency/politeness, and nationalism—that can inform children's literature appreciation textbooks in teacher education (Winarni et al., 2023).. Thus, thematic *pantun* selection in the Poketun application became a key strategy to foster students' emotional connection with the text.

Once the *pantun* content was selected, the next step was to design the AR-based visualization. AR visualization was chosen because it can bring learning experiences to life by merging the real and virtual worlds. Ji et al (2025) highlighted that AR enhances learning motivation by offering visual experiences that spark students' imagination. In *pantun* learning, AR visualization was used to present animations illustrating the meaning of each *pantun*. For example in figure 1, a *pantun* about friendship was accompanied by an animation of two children holding hands, while a *pantun* about the environment was visualized with animations of green trees and chirping birds.

Figure 1 Friendship-themed *pantun*

Screen Transcript:
Opening (Sampiran)
"Go to the garden to plant some corn,
The harvest grows and multiplies."

Message (Isi)
"A true friend brings good fortune,
A cherished companion of great value."

Interviews with students revealed their enthusiasm for this idea. One student commented: *"If pantun can show pictures on the phone, it would be more exciting. So we don't just read but also see the images"* (Interview, 2025). This indicates that AR visualization can bridge students'

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preference for interactive visual media. Diaz et al (2015) also emphasized that AR, enhanced with audiovisual elements, increases student engagement because it is easier to understand than static text.

In addition to AR animation, the Poketun application was equipped with audiovisual features. Each *pantun* could be read aloud with proper intonation according to *pantun* recitation rules. This feature aimed to help students learn how *pantun* should be pronounced rhythmically and correctly. Many students admitted difficulty in reading *pantun* because they were unsure about how to apply the right tone. One student stated: *"When reading pantun, I often don't know the rhythm. If there's audio, it would be easier to follow"* (Interview, 2025).

The audio feature also supports students with an auditory learning style, while visual illustrations were included to reinforce the *pantun*'s message. This combination of audio and visuals reflects the principles of multimedia learning theory, which stresses the importance of engaging multiple sensory channels to enhance learning effectiveness.

A distinctive feature of the Poketun application is its interactive component. Students were not positioned as passive recipients but were encouraged to participate actively. For instance, after reading and viewing *pantun* animations, students were invited to compose their own *pantun* with the app's guidance. This feature allowed students to write their *pantun* within the application, which then provided simple feedback, such as whether the rhyme pattern was correct.

The teacher considered this feature essential for fostering creativity, commenting: *"If the children can try creating pantun themselves, it's much better. They won't just read but also practice writing"* (Interview, 2025). This supports Feagin (2018) view that literary appreciation should go beyond recognition and understanding to include aesthetic sensitivity and creative ability.

Elementary school students today belong to the generation of digital natives, accustomed from an early age to interacting with digital devices such as smartphones, tablets, or computers. Observations showed that most students were used to playing games or watching videos on their parents' devices. They responded more positively to digital-based learning than to conventional textbook-based methods. One student remarked: *"It's better to learn using the phone, because it feels like playing a game. Reading books sometimes makes me sleepy"* (Interview, 2025).

This finding reinforces the relevance of the Poketun application as a medium for teaching literature. With its interactive, visual, and contextual design, the application meets the learning needs of digital native students, providing experiences that are both engaging and meaningful.

When compared with previous studies, most AR applications in education have been used for teaching science and mathematics. For instance, Wulan & Rahma (2020) demonstrated that AR improved understanding of science concepts in elementary schools. However, few studies have integrated AR into literary learning, particularly *pantun*. This is where the novelty of this research lies. Mustaqim (2016b) stressed AR's potential to boost learning motivation, while Yuliono et al.

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(2018) proved its effectiveness in supporting abstract material comprehension. In this study, however, AR was applied not for abstract concepts but for enriching aesthetic experiences and appreciation of traditional literature. This represents an important contribution to broadening AR's role in education.

In sum, the design process of the Poketun application integrated complementary elements: thematic *pantun* content, engaging AR visualizations, helpful audiovisual features, and interactive tools to foster creativity. All these components were designed with the characteristics of digital native students in mind, ensuring contextual, visual, and engaging learning. With this design, Poketun is expected to serve not only as a medium for reading *pantun* but also as a platform for building students' emotional engagement, fostering literary appreciation, and preserving local culture. This aligns with the study's aim of developing innovative learning media to address the challenge of low reading literacy while integrating modern technology with cultural heritage.

Validation and Product Development (Develop Stage)

The develop stage of this study represents a crucial phase that focused on building the prototype of the Poketun application (Pocket Book of *Pantun* Based on Augmented Reality) as well as validating the product with experts. The main objective of this stage was to ensure that the application was not only visually appealing but also feasible for use as a learning medium for *pantun* in elementary schools. Validation was carried out across three main aspects: content, media, and pedagogy. Each aspect was evaluated by experts in their respective fields, and the feedback obtained was used to improve the quality of the product to better align with the needs of both students and teachers.

The content expert, an Indonesian language education lecturer specializing in children's literature, particularly *pantun*, assessed that the *pantun* content used in the application was already relevant to children's lives. The themes of friendship, school, environment, and family were considered appropriate. The expert commented: *"The selection of pantun is already appropriate because the themes are close to students' daily lives. This makes it easier for children to understand the content and meaning of the pantun"* (Interview, 2025). However, the expert also provided input regarding the need for more variety in *pantun* types. They suggested that the application should not only present humorous or friendship *pantun* but also introduce advisory *pantun* (*pantun nasihat*), which could help children internalize moral values contained in traditional literature. This feedback emphasized that children's literary appreciation should not focus solely on entertainment but also on the absorption of life values. By adding greater variety, Poketun could function as both an educational and cultural tool.

Validation from the media expert, a specialist in educational technology and AR-based application development, found that the Poketun application was visually attractive, simple, and well-suited to the characteristics of elementary school children. The use of bright colors and AR animations was deemed effective in increasing student engagement. One expert

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noted: *"The AR visualization is attractive and suitable for children. However, the navigation system needs to be simplified so that students do not become confused when moving from one menu to another"* (Interview, 2025).

Other recommendations from the media expert included adding clear icons or visual cues to guide students in using interactive features. For example, the button for activating AR animations should have distinctive signs that children could easily understand. These refinements were expected to ensure the application was not only visually appealing but also functional and user-friendly.

The pedagogical validation was conducted by an elementary school teacher who regularly taught *pantun*. From the teaching perspective, the teacher believed that Poketun could serve as an engaging and relevant alternative medium for digital-native students. The teacher remarked: *"Poketun can be a solution to make children more interested in learning pantun. If we only use textbooks, they quickly get bored"* (Interview, 2025). However, the teacher also highlighted that the use of the application should fit within the limited time available in class. While interactive features such as creating *pantun* were beneficial, there needed to be simple guidelines so that students could complete the activity quickly without losing the essence of the lesson. This feedback was important for ensuring the app's practicality in classroom contexts.

Based on the expert feedback, several improvements were made to the Poketun prototype: (1) Adding more variety of *pantun*: besides humorous and friendship *pantun*, advisory *pantun* and environmental *pantun* were also included to enrich students' learning experiences. (2) Simplifying navigation: the main menu was streamlined and supported by clearer visual icons so that students would not get confused while switching between features. (3) Adding usage guides: a short animated tutorial was incorporated to explain how to use the AR and interactive features. (4) Optimizing interactive features: the feedback system for student-created *pantun* was simplified, focusing mainly on rhyme patterns that were easy for students to identify.

These revisions demonstrated that expert validation was not merely a formality but a vital step to ensure that the product met the actual needs of users. As one teacher emphasized: *"With improvements in navigation and pantun variety, the application becomes easier to use and richer in content. Children will definitely enjoy learning more"* (Interview, 2025).

The findings from this validation stage align with Fitayanti (2024), who stressed that AR-based digital media must undergo thorough validation before being implemented in classrooms. In their research on science education, validation was used to ensure alignment of content, design, and functionality. The same principle was applied in this study, though in the different context of *pantun* learning. Similarly, AlGerafi et al (2023) argued that the success of AR-based learning media is determined not only by technological sophistication but also by its relevance to students' needs and ease of use.

Thus, the expert validation of Poketun strengthened its credibility and distinguished it from prior studies that

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primarily focused on science and technology education. This stage also demonstrated that AR can be effectively adapted to the field of literature, bridging the gap between traditional literary heritage and modern educational practices.

In conclusion, the develop stage revealed that the Poketun application has great potential as a *pantun* learning medium, provided it continues to evolve in line with expert input and student needs. Content validation ensured the relevance and meaningfulness of *pantun*, media validation guaranteed user-friendly design and navigation, and pedagogical validation confirmed the application's suitability for classroom use. More broadly, these findings underline that AR in literary education is not only possible but promising. With the right approach, AR can serve as a bridge between traditional forms of literature and the modern demands of digital-age learning, reaffirming the novelty of this study in integrating AR with *pantun* literacy.

Classroom Implementation (Disseminate Stage)

The disseminate stage of this study served as a critical moment to examine the extent to which the Poketun application (Pocket Book of *Pantun* Based on Augmented Reality) could be applied in real classroom settings. After passing through the design and expert validation stages, the developed product was implemented with fifth-grade elementary school students at a public school in Bandung Regency. The purpose of this implementation was not only to evaluate the technical functionality of the application but also to understand students' and teachers' responses, as well as to assess how effectively the application enhanced reading literacy and *pantun* appreciation.

Observations during implementation revealed a high level of enthusiasm among students from the very beginning. When the application was introduced, most students showed curiosity and eagerness to try it. A classroom that was usually passive became more lively. One student remarked: *"This is so fun, Miss! The pantun comes with pictures on the screen. It feels like watching a movie, but we also get to read"* (Interview, 2025).

This enthusiasm was especially evident when the Augmented Reality (AR) feature was activated. For example, when a *pantun* with an environmental theme was displayed, the students' devices projected animations of trees, birds, and a clear river. These visualizations helped students grasp the meaning of the *pantun* more easily. One student noted: *"Usually, when I read a pantun, I don't really understand the meaning, but with the pictures, it makes sense"* (Interview, 2025). This finding reinforces Mustaqim's (2016) argument that AR can stimulate students' imagination and facilitate comprehension of learning materials.

Beyond understanding *pantun*, students were more motivated to create their own. The interactive feature that allowed them to compose *pantun* directly in the application received highly positive responses. A student expressed: *"It's really fun! We can make pantun right on the phone. It feels like playing, but we're learning too"* (Interview, 2025). This feature encouraged creativity rather than rote memorization. Observations showed that some students even competed to

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produce the funniest or most meaningful *pantun*, then proudly presented their work to the class.

From the teachers' perspective, Poketun proved highly beneficial as a varied teaching medium. Teachers who usually relied on textbooks found that the application reduced student boredom. One teacher commented: *"When I usually ask students to read pantun from books, they quickly lose interest. But with this application, they're excited. I don't have to push them as much"* (Interview, 2025).

Teachers also found that the application simplified the process of explaining *pantun* meanings. With the animations and audio features, there was no longer a need to sketch on the board or provide lengthy explanations. This made the teaching process more efficient. The teacher further noted that the app promoted collaborative learning: students worked in small groups to read *pantun*, interpret meanings, and create new *pantun* together.

Additionally, teachers emphasized that the app aligned with curricular demands for greater technology integration in teaching. One teacher explained: *"The current curriculum requires us to be creative in using technology. With this application, I feel greatly supported. Lessons are no longer monotonous"* (Interview, 2025). This highlights that Poketun benefits not only students but also teachers as facilitators.

The implementation of Poketun can also be analyzed through the lens of Self-Determination Theory (SDT) developed by Deci & Ryan, which states that intrinsic motivation increases when three psychological needs are met: autonomy, competence, and relatedness.

Autonomy

Poketun allowed students the freedom to choose which *pantun* to read, activate AR animations, or create their own *pantun*. This freedom fostered a sense of control over their learning process. One student noted: *"I can pick which pantun to read first. It's better, not like in the book where we have to go in order"* (Interview, 2025). This illustrates how the application fulfilled students' need for autonomy.

Competence

The interactive feature that guided students in composing *pantun* and provided feedback on rhyme schemes gave students opportunities to hone their skills. One student admitted: *"My pantun didn't rhyme at first, but the app told me. So I tried again to make it right"* (Interview, 2025). This improved their sense of competence, aligning with SDT's principle that individuals are more motivated when they feel capable.

Relatedness

The application also facilitated social interaction. As students created *pantun*, they shared their work with peers and laughed together. Teachers further encouraged this by having groups present their *pantun* to the class. These activities fostered a sense of belonging and social connection.

By fulfilling all three SDT components, students' intrinsic motivation to read and appreciate *pantun* significantly increased. This supports the notion that AR is not merely a visual technology but also a pedagogical tool that enhances deeper learning engagement.

Reframed against literary/cultural contexts, these findings are consistent with

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AR applications in humanities learning: AR has been shown to deepen affective–narrative engagement in literature courses (Pamungkas, Purwoko, et al., 2025) and to support inclusive literary comprehension through multimodal features (Pamungkas, Paresti, et al., 2025). More broadly, AR for cultural heritage learning provides authentic, object- and place-linked experiences that sustain attention and meaning-making—paralleling the way Poketun animates *pantun* performance and values (Boboc et al., 2022). In this sense, our results extend prior work from general AR/science settings to traditional literature, showing that an AR-mediated *pantun* medium can cultivate engagement while addressing boredom in reading activities, as also reflected in teachers' reports..

Overall, the classroom implementation demonstrated that Poketun is a practical and innovative solution for enhancing reading literacy and literary appreciation. The enthusiastic student responses and their motivation to create *pantun* illustrate the application's ability to transform monotonous learning into enjoyable experiences.

For teachers, the app provided an alternative teaching tool suited to contemporary educational demands, while also easing instructional tasks. More broadly, this research reaffirmed the novelty of integrating modern technology with traditional cultural heritage—*pantun*—making its significance not only pedagogical but also cultural.

Thus, the disseminate stage confirmed that Poketun is not only theoretically and technically sound but also practically relevant in real educational contexts. Looking forward, the application has potential for broader use beyond elementary schools, with content adaptations for different educational levels.

Impact on Reading Literacy and Children's Literary Appreciation

The implementation of the Poketun application (Pocket Book of *Pantun* Based on Augmented Reality) in the classroom provided a clear picture of its impact on enhancing both reading literacy and children's literary appreciation. These two aspects are inseparable and mutually reinforcing: reading literacy serves as the gateway for students to comprehend texts, while literary appreciation enriches their aesthetic and emotional experiences with the works they read. This discussion first addresses the impact on reading literacy, followed by children's literary appreciation.

One of the most visible changes after using Poketun was the increase in students' reading frequency and motivation. Previously, students were passive and read *pantun* only when instructed by the teacher. After the application was introduced, they became more active and initiated reading independently. Observations revealed that some students even read *pantun* outside class hours out of curiosity about the AR-visualized content. One student explained: *"Now I like to open the app at home. The pantun are funny, so I want to keep reading"* (Interview, 2025).

Beyond frequency, students' comprehension of *pantun* content also improved. The AR visualizations helped them link texts to real-life contexts. For example, when reading a *pantun* about friendship, the animation of two children playing together made it easier for students

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to relate the text to their own experiences. One student noted: *"The pantun about friends is easier to understand. It made me think of my own friend"* (Interview, 2025). This aligns with Lin et al (2024) theory of digital literacy, which emphasizes that reading engagement is not only about technical decoding but also about interpreting, internalizing, and applying text meaningfully.

From a digital literacy perspective, Poketun also offered solutions to challenges in online learning previously highlighted by UNICEF (2020). Their survey revealed that students struggled with limited teacher guidance, lack of devices, and boredom from monotonous media during home-based learning. Poketun addressed these issues by being accessible through mobile devices, offering interactive learning experiences, and reducing boredom. A teacher confirmed this, saying: *"Students usually get bored quickly with long texts. With this app, they stay engaged because there are pictures, voices, and animations"* (Interview, 2025).

More broadly, Poketun fostered active and reflective literacy. Students not only read *pantun* but also discussed meanings, connected them to personal experiences, and became motivated to compose new *pantun*. This marked a shift from passive to active and reflective literacy engagement.

In terms of literary appreciation, the application also brought significant changes. Before its use, most students viewed *pantun* as mere school tasks to be memorized. With AR visualization, however, they began to see *pantun* as engaging and meaningful works of art. One student reflected: *"Before, pantun were just something to read. Now it's more exciting because I can see the pictures too, so the meaning feels stronger"* (Interview, 2025).

These visualizations encouraged students to move beyond surface-level reading toward deeper appreciation. For instance, when a *pantun* about the environment was accompanied by images of lush forests and chirping birds, students became more aware of moral lessons about caring for nature. Similarly, when a *pantun* about advice was illustrated with parents giving guidance, students more easily grasped its moral values. This resonates with Santoso's (2003) concept of children's literary appreciation, which involves recognition, comprehension, interpretation, emotional engagement, and enjoyment of literature.

Appreciation through Poketun also contributed to character building. By reading and internalizing *pantun*, students learned values such as friendship, honesty, environmental care, and love for local culture. Teachers observed greater empathy among students after using the app. One teacher shared: *"When we read pantun about cleanliness, students immediately connected it to their habits at school. Some even promised to be more diligent about throwing trash in the bin"* (Interview, 2025).

In addition to character development, the app reinforced students' cultural identity. *Pantun*, as an intangible cultural heritage of the Indonesian-Malay tradition, was reintroduced in a digital format that matched the era. Students not only enjoyed literature but also felt pride in their cultural heritage—a crucial achievement amid globalization pressures that often distance youth from traditional culture.

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The positive impact of Poketun on reading literacy and literary appreciation expands upon prior studies. Most AR-based educational research has focused on science and mathematics. For instance, Erwis et al (2024) found AR effective in teaching natural science concepts, while Rix (2009) emphasized its strength in simplifying abstract materials. However, this study differs by applying AR in the domain of literature, specifically *pantun*. Its novelty lies in bridging modern technology with traditional literature, proving that AR is not limited to STEM subjects but can also enrich humanities education.

In summary, the implementation of Poketun yielded a dual impact. First, it enhanced reading literacy by encouraging more frequent reading, improving comprehension, and motivating students to connect texts with personal experiences. Second, it strengthened literary appreciation by fostering deeper engagement with *pantun*, promoting positive character values, and instilling pride in cultural identity.

Thus, Poketun functions not only as an innovative learning medium but also as a strategic tool for cultural preservation. The implications of this research extend across pedagogy, culture, and technology: pedagogically, it provides teachers with interactive learning alternatives; culturally, it nurtures students' pride in local heritage; and technologically, it demonstrates the potential of AR in broadening educational applications beyond conventional subjects.

Novelty and Implications

This study demonstrates clear novelty by integrating Augmented Reality (AR) technology with literary reading skills, specifically *pantun*, an innovation that has rarely been explored in previous research. To date, AR has been predominantly utilized in the fields of science and mathematics to explain abstract concepts (Wulan & Rahma, 2020; Yuliono et al., 2018), whereas this study situates AR within the context of children's literature, which is both aesthetic and cultural in nature. The novelty of this research is evident in three dimensions. First, from the domain of study, *pantun*—recognized as local cultural heritage—was used as the object of digital innovation. Second, from the technological approach, AR was employed not merely to clarify concepts but to enrich students' aesthetic experience in reading and appreciating *pantun*. Third, from the pedagogical objective, this research emphasizes the strengthening of reading literacy alongside literary appreciation, rather than focusing solely on cognitive improvement.

The theoretical implications of this study reinforce and expand existing frameworks. In relation to reading literacy, the findings support Guthrie & Wigfield's (2017) perspective that literacy encompasses not only technical reading skills but also emotional and motivational engagement. The Poketun application successfully increased students' reading frequency, facilitated their comprehension of *pantun*, and encouraged them to connect the texts with personal experiences. With regard to children's literary appreciation, the study validates Feagin (2018) theory, which positions appreciation as a process involving recognition, comprehension, interpretation, emotional engagement, and enjoyment. Through AR visualizations, students not only read texts but also

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experienced *pantun* in a multisensory way, allowing them to internalize moral, cultural, and aesthetic values more effectively. Furthermore, this research expands the scope of AR-based learning theories by demonstrating that AR is not only relevant to STEM disciplines but can also be effectively applied in the humanities, particularly literature and cultural education.

On the practical level, this study provides direct benefits for teachers, students, and the development of national education. For teachers, Poketun serves as an alternative, creative learning medium that reduces student boredom and offers diverse methods aligned with the demands of digital curricula. For students, the application enhances reading literacy while fostering intrinsic motivation through enjoyable and interactive experiences, in line with Self-Determination Theory, which emphasizes autonomy, competence, and relatedness. Beyond classroom learning, the study also contributes to cultural preservation. *Pantun*, which has been increasingly marginalized, is revitalized in a modern format that resonates with digital natives, enabling students not only to appreciate literature but also to take pride in their cultural identity.

At the policy level, the Poketun application supports the government's agenda for technology-driven educational transformation, as outlined in the "Learning from Home" initiative (Kemendikbud, 2020), by providing flexible access to education without temporal or spatial limitations. Thus, this research delivers not only academic contributions but also practical solutions to the pressing challenges of children's literacy and literary appreciation in the digital era.

Conclusion

This study affirms that developing Poketun—a pocket-book *pantun* application enhanced with AR—provides a tangible contribution to improving elementary students' reading literacy and literary appreciation. Across the sequential R&D stages (needs analysis, design, expert validation, classroom implementation), Poketun delivered a more engaging and interactive experience suited to digital-native learners: students read *pantun* more frequently, interpreted meanings more readily, and connected texts to daily life; teachers reported reduced boredom and richer variations of learning activities. Importantly, these gains align with Kurikulum Merdeka and the Profil Pelajar Pancasila (P5) by cultivating *Bernalar Kritis* (moving beyond recall to interpretive inference), *Berkebinekaan Global* (valuing cultural messages in *pantun*), *Berakhlak Mulia* (internalizing moral values), *Kreatif* (composing *pantun*), and *Gotong Royong* (through planned collaborative features). The study's novelty lies in integrating AR into literature learning—traditionally dominated by science/math use-cases—thereby extending AR-based learning into the humanities. At the same time, we acknowledge limitations: a small sample (six students, one teacher), a single-school context, and the absence of long-term evaluation of literacy/appreciation outcomes. Future work should involve multi-school trials with larger and more diverse samples, longer follow-up to gauge retention and transfer, comparative or quasi-experimental designs, and iterative

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refinements (e.g., broader *pantun* themes, simpler navigation, optimized composing tools, structured collaborative tasks, and an offline mode) to strengthen usability, equity of access, and sustained impact across schools.

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